CRITICAL HABITAT: PICTURING EXTINCTION, CONSERVATION, AND THE AMERICAN ANIMAL IN THE LONG TWENTIETH CENTURY

BY

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DISSERTATION

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ABSTRACT

Critical Habitat': Picturing Extinction, Conservation, and the American Animal in the Long Twentieth Century, looks at images of at one time endangered or threatened animals in order to develop what I have named a specifically American conservation aesthetic. Within a conservation aesthetic images are almost always dialectic – connected simultaneously to attempts to preserve biodiversity and the natural world while reifying tropes that lead to its destruction. Additionally, the conservation aesthetic is linked to legislation histories and practical actions both to preserve and destroy particular natural places or species – images within a conservation aesthetic can be never be read as isolated objects, but instead are always part of broader ecologies. Understanding this conservation aesthetic allows for an interpretation that extends beyond the traditional art historical understanding of American landscape as part of nation building, but rather reveals the potential each image holds for viewers in the here and now to think differently about the natural world, and their relationship with it. The conservation aesthetic becomes an analytic, presenting a new methodology for the incorporation of the study of material culture into the environmental humanities.

The dissertation examines material culture from the long twentieth century. It begins with the early trap camera photography of George Shiras, a Pennsylvania Senator and amateur naturalist, who attempted to use photography as a means to replace gun hunting and preserve American game animals. Next, I compare the sporting art of Carl Rungius and the natural history murals of Charles Knight to analyze the place of nostalgia in extinction, species endangerment and representation within the conservation aesthetic. To understand the role of time and place within the conservation aesthetic, my dissertation analyzes the photography series *Diorama* by Hiroshi Sugimoto. Sugimoto's images, uncanny photographs of the dioramas at the American

Museum of Natural History, destabilize the viewer, and perhaps hold more meaning for present day viewers than they did at the time of the photographs' production. Lastly, I examine the mythology of Bigfoot and attempts to picture the beast. Bigfoot photography, on the one hand, attempts to reify tropes of early 20th century masculinity and Manifest Destiny, yet also disrupts the mythologies of wilderness which created Bigfoot in the first place. Overall, the dissertation uses material culture to expose and develop the dialectics of images viewed as part of a conservation aesthetic.

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For my father, who, from an early age, taught me the importance of kinship with the nonhuman world

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INTRODUCTION: THE CONSERVATION AESTHETIC

Hanging above my desk in my home office is a 1990 poster from the Safari Club International that declares, "UN-ENDANGERED SPECIES – American wildlife is thriving due to the successful conservation efforts brought forth and funded by hunting sportsmen and women. In fact NO species has become extinct due to sport hunting. *Thank you, American Hunters!*"[1] This idea, that sport hunting has been a great benefit to conservation in the United States might be shocking to many. Today, hunting is often thought of in opposition to animal conservation. The urge to kill wild animals seems antithetical to the drive to conserve them. Big game hunters are frequently demonized by environmentalist circles and hunting for trophies rather than food is especially seen as ethically corrupt. But in the late 19th and early 20th centuries, sport hunting was intimately linked with the conservation of wild lands and animals as westward expansion and human population increases spelled disaster for big game. Indeed, due to habitat destruction and overhunting, populations of bison, deer, wild turkeys, caribou, elk, and muskox declined precipitously in the late 19th and early 20th centuries. The people who responded to the declining numbers of big game were almost exclusively big game hunters, including Theodore Roosevelt; lawyer and zoologist Madison Grant, who authored some of the first federal conservation law; Smithsonian taxidermist and first director of the New York Zoological Society, William Temple Hornaday; editor of *Forest and Stream* George Bird Grinnell; and the inaugural head of the US Forest Service Gifford Pinchot. All founding members of the Boone and Crocket Club, an organization with the purpose of sharing hunting stories, this group of sport hunters, among others, wrote some of the first conservation laws, primarily aimed at preserving animals and their habitats so that hunting could continue.

[1] UN-ENDANGERED SPECIES, poster from the Safari Club International, 1990.

One could argue that hunters, in their effort to preserve lands, worried more about the threat to their favored pastime than about the conservation of the animals they hunted. But hunting was also important to the formation of an explicitly "American" identity. Based on mythologies of the frontier and expansion, figures like Theodore Roosevelt claimed that Americans should build a national identity and collective sense of belonging through outdoor experiences and recreation. In this model, big game hunting was the essential performance of American rugged individualism. As the US federal and state governments began setting aside more and more tracts of public land, especially after the creation of Yellowstone National Park in 1872, the ability to hunt game on public land was understood as a democratic and egalitarian act, a claim made more convincing when comparing American hunting laws to European ones, which limited game hunting to the land-owning aristocracy.

Despite American access to public land, however, big game hunting in the United States was limited to the wealthy elite. Some of the earliest federal conservation laws were meant to restrict subsistence and market hunting (activities of the working class), and through permitting, provide access only to big game hunters. Big game hunting was not just an expression of rugged individualism but linked closely to displays of whiteness. Grant, who was a confidant and advisor of Roosevelt and helped found the Bronx Zoo and Glacier and Denali National Parks, described what he saw as a connection between decreasing populations of game animals and a white race in America threatened by immigration and miscegenation.[2] Grant created legislation that would preserve hunting for the wealthy white elite, but also understood conservation efforts as linked to eugenics, both seen as part of his legislation heavy Progressivism. Grant's 1916 *The Passing of the Great Race* discusses what he sees as pressures on a disappearing Nordic race

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[2] Jonathan Peter Spiro, *Defending the Master Race: Conservation, Eugenics, and the Legacy of Madison Grant*, (Burlington: University of Vermont Press, 2009)

with language that comes directly from conservation laws seeking to protect specific animal populations.[3] The book was later championed by Hitler and is referenced today in eco-fascist manifestos as evidence for limiting world populations. Hunting was not just a projection of whiteness; big game hunting and legislation protecting it also served a settler colonial purpose. After the end of Manifest Destiny, federally protected land seemed almost essential to preserve landscapes for Euro-Americans to experience the spirit of discovery that prompted westward expansion and the violent course of settler colonization. Game laws turned Indian land into wildlife preserves and in turn, Indigenous peoples, hunting on their ancestral grounds, into poachers. The federal and state protection of land, while beneficial to many animal populations, removed Indians from their land and erased the histories of native people in order to see these landscapes as pristine and wild.

Despite these abhorrent connotations, hunting does, in fact, do some good for species conservation. Hunting permits were and still are expensive, and the money they raise goes back into conservation programs, or at least into funding the maintenance of public land. Hunting also connects individuals to outdoor recreation and public land, creating an interest in continually funding and preserving these landscapes. After the eradication of predators, particularly wolves, hunters and even some biologists have argued that hunting puts pressure on ungulate populations (large mammals with hooves) akin to predation. Hunting does control population sizes but hunters, especially trophy hunters, look for the biggest and most impressive individuals; in the case of deer, for example, they search for the buck with the largest rack. In contrast, predators prey on the weak: the sick, the old, and the young – removing only those individuals who are

[3] Madison Grant, *The Passing of the Great Race: Or, the Racial Bias of European History*. (New York: Charles Scribner's Sons, 1916).

unlikely to reproduce anyway and, in some cases, controlling the spread of disease in prey animal populations. In this way, hunting cannot mimic predator population control.

This dissertation asserts that the conservation movement, as it emerged in late 19th- and early 20th-century America, cannot be considered as separate from settler colonial land grabs, Indian erasure and problematic masculinity, and that such a connection can be seen through the images produced by George Shiras, Carl Rungius, Charles Knight, Hiroshi Sugimoto, and amateur Bigfoot photographers discussed in the following pages. It can seem counterintuitive to be so critical of conservation, which is often understood as inherently a good thing. As climate change, pollution, industrialization, and habitat loss seem to be increasing daily, conservation action seems necessary now more than ever before. Because of my interest in the origins of the conservation movement in hunting, the artworks discussed in the following chapters are illustrations of conservation ideas primarily linked to biodiversity loss and mass extinction. Naturally, species do go extinct, but the historical rate of extinction is less than one per million species annually, so with an estimated 10-20 million plants and animals on the planet, fewer than 20 species should be go extinct each year.[4] Currently, we are losing thousands of species to extinction annually. Because of these staggering numbers, it seems the main critique should be that our conservation efforts are not far enough reaching. It can be difficult to lump efforts to slow species extinction in with other forces generally accepted as destructive, such as settler colonialism. Today, many environmentalists would deny any linkages between conservation goals and settler colonial or racist ideologies. But, born out of settler colonialism, conservation is often embroiled in ideas of settler belonging, problematic masculinity, and Indian erasure. This dissertation, however, attempts to critically look at representations of conservation in hopes of

[4] Ronald Sandler, "Techno-Conservation in the Anthropocene: What Does it mean to Save a species?" *Routledge Companion to the Environmental Humanities*

finding new ways of looking and thinking about conservation and relating to nonhuman animals that reckon more directly with these complicated histories.

The images discussed in the following chapters are interested dually in the killing and conserving of the animals pictured. These images emerged primarily from a late 19th- and early 20th-century hunting ethos, and, in most cases, directly from hunting in practice. That it is to say all of these images, even if indirectly, involve the killing of animals. Some, like Hiroshi Sugimoto's photographs of the habitat dioramas at AMNH, picture the actual animal remains of hunts to provide the museum with specimens, while others, like George Shiras' photographs and Carl Rungius' paintings emerged from both artists' interest in and experience as hunters. Bigfoot photography also developed as part of the hunt for the cryptid, or creature unknown to science.

The artists discussed here: George Shiras, Carl Rungius, Charles Knight, Hiroshi Sugimoto, and the amateur photographers who attempted to picture Bigfoot, are all working to gain support for the protection of the animals and landscapes they represent. But, at the same time, the images repeat the settler colonial notions that led to biodiversity decline and habitat destruction in the first place. I name this dialectic the conservation aesthetic. The conservation aesthetic describes images that actively attempt to change public attitudes about conserving species or wild lands, but in so doing, also reify problematic ideologies of settler colonialism and masculinity that led to environmental decline and biodiversity loss. The primary focus of this dissertation is to identify, through four separate case studies of images of different species (wolves and deer, bison, polar bears, and Bigfoot) the way the conservation aesthetic functions to communicate the complicated histories of conservation in the United States in the long twentieth century. Simply accepting conservation as inherently good, is a failure to challenge the

complicated and uncomfortable histories with which it is intertwined; the conservation aesthetic is a tool to help unwind the visual representations of these complexities.

Before discussing the images, however, it is useful to think about the legal history of conservation and species protection in the United States, and the ways in which legal protections for wild animals have informed my thinking about the representation of endangered, threatened, or declining species. The earliest conservation laws in the United States were written by sport hunters and signed into law by America's favorite sport hunter – Theodore Roosevelt. The nation's largest institutions of science are filled by the trophies killed by the same men. Museums of natural history became repositories for the bodies and skins of species that were feared to be in precipitous decline. In the late 19th and early 20th centuries, an anxiety about the inability to preserve these animals in the wild or keep them alive in the newly formed zoos led to their mass scale collection in museums as taxidermy specimens and cabinet skins. By the early 20th century, land was being set aside on the state and federal level to provide habitat for game animals and permits and gun laws were put in place to control the taking of animals. In a sense, game animals were killed so that they could be preserved, and then later conserved so that they could be killed.

The Lacey Act of 1900 was one of the first federal laws to protect imperiled species. It prevented the illegal sale or trade of species across state lines and is still used today to enforce illegal importation of animals and stop the spread of invasive species.[5] Though the Lacey Act limited commercial use of plants and animals, it did little to curb sport hunting. The 1902 Alaska Game Law, authored by Grant, was another important early protection against species extinction. Alarmed by the shrinking numbers of game animals in Alaska, particularly after the Gold Rush,

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[5] "Lacey Act," US Fish and Wildlife Service, International Affairs, https://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/lacey-act.html accessed 6/22/20

Grant wrote a law aimed at protecting wild animals. Radical for its time, the law prohibited the commercial killing of all Alaskan wild game and birds, banned the shipment of wild meat outside of the territory, established hunting seasons for the territory's primary game, and authorized the federal government to ban altogether the hunting of any species at risk of extinction.[6] Grant, however, is rarely celebrated in conservation history because of his fervid support of eugenics; today's environmentalists seem to prefer to ignore these complicated and problematic histories.

Though these laws began in the late 19th century, it was not until the late 20th century that endangered species received fuller protections in the Endangered Species Act of 1973 (ESA). According to the ESA itself, the legislation was created at least in part as a response to the fact that "various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untampered by adequate concern and conservation."[7] The primary purpose of the Act is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species."[8] The ESA gives authority to the Secretary of the Interior to designate species as endangered: "any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man,"[9] or

[6] Spiro, 26.
[7] Endangered Species Act of 1973, as amended through the 108th Congress, Department of the Interior, US Fish and Wildlife Service, 1.
[8] Ibid, 1.
[9] Ibid, 2.

threatened: "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."[10]

Most of the protective work the ESA does for endangered species is through the designation of critical habitat. Critical habitat, "for a threatened or endangered species," is defined as:

> the specific areas within the geographical area occupied by the species, at the time it is listed…on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed…upon a determination by the Secretary that such areas are essential for the conservation of the species[11]

Critical habitat, however, cannot include "the entire geographical area which can be occupied by the threatened or endangered species,"[12] meaning in order for an area to be designated as critical habitat, it must currently host a protected species, not the potential to be good habitat for one. The ESA additionally limits the taking (hunting or capturing) of listed species, for both personal or commercial use, though the designation of specially protected critical habitat is the main tool through which the ESA seeks to promote the rebounding of population numbers of protected species. This is driven by the ecological understanding that listed species are both essential to the habits they occupy and dependent on these particular ecosystems for survival.

Critical habitat is central to the theoretical formulation of this dissertation. Each chapter focuses on an animal or animals that are or have at one time been legally protected. These are gray wolves (*Canis lupus*), white-tailed deer (*Odocoileus virginianus*), bison (*Bison bison*), polar bears (*Ursus maritimus*), and Bigfoot. Yes, even Bigfoot is a legally protected species in some Washington state counties. In order to understand the history of protection for these species in

[10] Ibid, 4.
[11] Ibid, 2.
[12] Ibid, 2.

relation to their representation, I use the idea of critical habitat to think about the broader ecosystems portrayed in each image. I am interested not just in the animals depicted, but also their influence on an ecosystem on a species scale and the importance of specific ecosystems for species survival. Additionally, I use the lens of critical habitat to develop a theoretical model that asks: what if the critical in critical habitat does not mean only a habitat that is essential for species survival, what if it is also understood in terms of critical theory? What does a habitat look like if it begins to question the lenses through which it was constructed?

In order to view habitats critically, this dissertation mobilizes a way of looking at images that compares to the way a naturalist views an ecosystem, as an interconnected web of plants and animals, of images and historical moments, that function together to either positively or destructively impact each other. This shift in thinking, or rather in looking, is what naturalist Aldo Leopold would call "thinking like a mountain."[13] When recalling the distinct echo of hearing a wolf howl, Leopold writes:

> Every living thing (and perhaps many a dead one as well) pays heed to that call. To the deer it is a reminder of the way of all flesh, to the pine a forecast of midnight scuffles and of blood upon the snow, to the coyote a promise of gleanings to come, to the cowman a threat of red ink at the bank, to the hunter a challenge of fang against bullet. Yet behind these obvious and immediate hopes and fears there lies a deeper meaning, known only to the mountain itself. Only the mountain has lived long enough to listen objectively to the howl of a wolf.[14]

Leopold continues to recount the first time he saw a wolf die, at his own hand, at a time when wolves were so demonized he, "had never heard of passing up a chance of killing a wolf,"[15] primarily because fewer wolves would mean more deer for hunters. Instead, witnessing the wolf's death revealed the fallacy of Leopold's previously held conceptions of natural order, that

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[13] Aldo Leopold, *A Sand County Almanac: And Sketches Here and There*, Oxford: Oxford University Press, 1949, 129-133.
[14] Ibid, 129.
[15] Ibid, 130.

"neither the wolf nor the mountain agreed with such a view."[16] In this death, Leopold realizes that ecosystems are far greater than their individual pieces or their individual actors. As he lived to witness the extirpation of wolves from most of their historic range, he also witnessed the habitat destruction wrought by over abundant populations of deer. Leopold realized that "just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer."[17]

The phrase conservation aesthetic, which is at the heart of this dissertation, not only incorporates Leopold's ecosystem vision of "thinking like a mountain," but is also a play on words of his phrase "conservation esthetic."[18] In his essay of the same name in *A Sand County Almanac*, Leopold identifies an ethical problem with outdoor recreation that he traces back to Roosevelt. This problem is very similar to the paradox of the conservation aesthetic; one of the main goals of conservation is to preserve spaces for outdoor recreation, thus positioning "the outdoors," as a resource. In Leopold's model of outdoor recreation, everyone who partakes in outdoor recreation is labeled as both a hunter and conservationist because even those who do not kill animals are looking to take away trophies, be they bird-watching, peak bagging, or sport fishing. Outdoor recreation, then, puts itself in the double bind in that it is necessary to garner people's interest in conservation, yet that very interest can lead to overuse that puts natural areas at risk. Leopold warns: "recreation, however, is not the outdoors, but our reaction to it."[19] Understanding esthetics as a set of principles, Leopold calls for a change in ethics that responds to the outdoors not as a resource but as a site of study. Through this change in perception, "the weeds in a city lot convey the same lesson as the redwoods."[20] The shift in ethics, for Leopold, is not just about the shared code we use when recreating in outdoor spaces (the kind of "leave no

[16] Ibid, 130.
[17] Ibid, 132.
[18] Ibid, 165.
[19] Ibid, 173.
[20] Ibid, 174.

trace principles" hikers share), but in the very way we perceive what "counts" as the outdoors. He writes, "recreational development is a job not building roads into the lovely country, but of building receptivity into the still unlovely human mind."[21] The images discussed in the following pages are the artists' attempts at building that receptivity, yet they fail to reckon fully with the resource driven model Leopold describes as in need of a shift of perspective. The conservation aesthetic, as I propose it, encapsulates this paradox.

The conservation aesthetic often makes emotional appeals or pulls on heartstrings to earn public support for the plight of a specific plant or animal. For instance, in their diorama display "Four Seasons of the Deer," at the Field Museum in Chicago (Figure 1), Carl and Delia Akeley attempted to create emotional connections between viewers and the white-tailed deer they represented by showing a typical nuclear family through all four seasons in Virginia. In the four connected dioramas, viewers are able to watch a doe and buck raise their young fawn, despite the fact that deer do not parent in monogamous pairs the way that humans often do. Akeley's vision, as is the case with many of his other habitat dioramas, asks viewers to care for deer as a whole species, even though these individuals have already been slaughtered. According to Donna Haraway, many of Akeley's diorama displays perpetuate what she labels "Teddy Bear Patriarchy," by replicating the moment of encounter with the wild animal.[22] This moment of encounter encourages museum visitors to participate, virtually, in the big game hunts of figures like Roosevelt, as the dioramas recreate the moment of surprising the animal in the wild. This means that the habitat diorama becomes an educational tool, not just of natural history, but also

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[21] Ibid, 176-77.

[22] Donna Haraway, "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936," *Social Text*, no. 11, (Winter 1984-1985): 20-64

of the patriarchal ethos purported by Roosevelt and other hunters and conservationists discussed previously.

In many other images, the conservation aesthetic relies on romantic era values of pristine wilderness to generate a powerful sense of awe in the viewer. Ansel Adams famously relies on the sublime to present a vision of the American landscape in *My Camera in the National Parks.* In photographs like *The Tetons and Snake River, Grand Teton National Park, Wyoming*, from 1942 (Figure 2), Adams presents the jagged peaks of the Tetons with the swiftly moving Snake River. The river, accentuated by the high contrast of the photograph, winds sharply through the foreground of the scene. The mountains' beauty is emphasized by brightly lit clouds, which mimic the serrated forms of the mountain peaks. Adams' elevated viewpoint, and depiction of the sweeping landscape is reminiscent of romantic landscape paintings of the American West from a century earlier, such as work by Thomas Moran or Albert Bierstadt. This viewpoint displays the openness and grandeur of the Wyoming landscape. Adams, however, presents the landscape as a place holding only pristine, natural beauty, with no sense of the histories of violence that removed the Shoshone and Cheyenne people from this land.

The Tetons and Snake River, was published in Adams' larger project, the photobook *My Camera in the National Parks.* In this book, Adams pictures the landscapes of the national parks simultaneously as sublimely wild and also possessable – distant from civilization, but also containable. By publishing his many photographs of national parks together in the photobook, these distant and wild landscapes become containable – the natural wonders of the entire nation can be held between two hands, placed on the coffee table, or framed on the wall. Despite this, the landscapes still appear wild, through the use of high contrast and an elevated view – presenting an American landscape that typifies a rugged and individual American identity. These

ideas, of the vast and unpeopled landscape, maintain Grand Teton National Park as a site of exploration and discovery, a frontier that still exists to be discovered. Adams' landscapes inspire others to travel to these beautiful landscapes, perhaps to re-photograph them, and support their protection, while also upholding the settler colonial myths of the frontier and wilderness.

In some images, the conservation aesthetic more directly connects Indian erasure with species endangerment. Because of this connection, the trope of the Vanishing Indian appears often in images that participate in the conservation aesthetic. The Vanishing Indian is the 19th-century trope that posits Indians as inherently disappearing. While Vanishing Indian tropes usually involve some sort of mourning or lamentation for this loss, the perceived extinction of Indians is also presented as natural and inevitable. In this way, when the image of the Vanishing Indian prevails, living Indians are seen as impossibilities, as non-modern, and not existing in the present. The Vanishing Indian imagines Indianness as only existing in the past. Vanishing animals, particularly animals that disappeared directly at the hands of settler colonialism like wolves or bison, are seen as connected to Indians, and therefore also denied an existence in the present. This trope of the Vanishing Indian and the vanishing bison can be seen explicitly in Edward S. Curtis' photograph *Offering the Buffalo Skull – Mandan*, (Figure 3), in which the lone Mandan figure is shown holding up a bison skull in an otherwise empty landscape. In this photograph, Curtis displays the mourning and loss that is also a frequent marker of the conservation aesthetic. In an attempt to promote conservation-minded ideas about the natural world, artists try to depict what has been or could be lost. But, like Curtis, the conservation aesthetic simultaneously upholds settler colonial ideologies, like the Vanishing Indian, in order to depict that loss.

The conservation aesthetic often pictures a view of the natural world and wilderness grounded in American exceptionalism. Painters like Albert Bierstadt represented the romantic ideal of wilderness that later artists like Adams relied on, but also represented American wildlife as the wildest, the largest, and the most majestic. This can be seen in Bierstadt's *Rocky Mountain Goat* (Figure 4), where Bierstadt presents the goat as a monarch of the mountains, standing atop a rocky ledge, looking out over a wild chasm. Most depictions of American wildlife from the 20th century are of large game animals such as this goat, either as lone males, typical of the rugged individualism of the American identity, or as nuclear family groups, like Akeley's deer. America is pictured as a wild land full of the largest and fiercest game, an Eden for hunters that needs to be protected. This vision presented by Bierstadt was a lasting one – as just about 100 years later, it was repeated by John Clymer in *The Lookout* (Figure 5). Clymer similarly depicts the large male goat as the master of the landscape, looking out over a rocky ledge. He decides to include the female and young below, presenting simultaneously the self-reliance and masculinist sense of settler belonging and the moral qualities of American family values that outdoor experiences can allegedly provide.

With an only increasing threat of habitat and biodiversity loss, these appeals to public opinion are becoming even more important for the protection of imperiled species. I hope that, in identifying the dialectal tension of the conservation aesthetic, I also find potential in these images to think differently about the natural world and undo some of the settler colonial work inherent in the conservation aesthetic. In many respects, this work is akin to Ariella Aïsha Azoulay's concept of potential history. According to Azoulay, "potential history is a form of being with others, both living and dead, across time, against the separation of the past from the

present."[23] Azoulay sees the work of potential history as unlearning imperialism, primarily, of identifying the possibilities extant in structures and institutions of imperialism such as museums and archives to undo the colonialist systems they put in place. One way she does this is by studying "discrete, different, and unrelated events separated from each other by hundreds of years as instantiations of the same monotone movement of the imperial shutter."[24] Conservation is one of these imperial institutions that needs to be unlearned. By looking at multiple images and media across the long 20th century, that may otherwise appear disconnected, I reveal the potential of the conservation aesthetic to undo its own settler colonial project.

Through not following a set and linear chronology, I am working not only to unlearn the imperial structures of conservation, but also explicitly reject settler constructs of time that convey relationships with the natural world primarily in terms of resource extraction and progress. This refusal of a linear chronology is an attempt to also counter the progress-based narratives of concepts like the Vanishing Indian. Following Mark Rifkin's lead in *Beyond Settler Time*, I understand the need to demonstrate, "not just a more expansive or inclusive version of 'history' or the 'present' but an examination of the principles, procedures, inclinations, and orientations that constitute settler time as a particular way of narrating, conceptualizing, and experiencing temporality."[25] In order to challenge, as Rifkin states, "the commonsensical conception of time as neutral, universal, and inherently shared,"[26] I analyze images not only in terms of their historical context, but also in terms of their present interpretations. These images matter not only for what they can tell us about the past and conservation history, but also for the

[23] Ariella Aïsha Azoulay, *Potential History: Unlearning Imperialism,* London: Verso, 2019, 43.
[24] Ibid, 25.
[25] Mark Rifkin, *Beyond Settler Time: Temporal Sovereignty and Indigenous Self-Determination*, Durham: Duke University Press, 2017, viii.
[26] Ibid,

ways in which they influence conservation thinking today. By doing so, viewers are implicated in the histories of violence that the conservation aesthetic reveals.

In order to really look at these images as a naturalist, to fully think like a mountain, I follow scholarly models that seek to either incorporate biological sciences into the study of history or the humanities into the environmental sciences. For each species considered, I integrate the natural history, ecology, and biology of the animal into my analysis of the image. The ecological role, historical range, and environmental threats of each species matter greatly and help provide a fuller understanding of the conservation history implicit in each image. As a model for this kind of work, I look to environmental historians such as Paul Sutter, who examines the biological role played by mosquitoes and their function as vectors of yellow fever in terms of the insect's impact on the building of the Panama Canal.[27] While I rely on other scholars of environmental and animal histories, like Dan Flores, my approach is also influenced by environmental scientists who incorporate knowledge from the humanities.

In *Braiding Sweetgrass*, botanist Robin Wall Kimmerer offers a "braid of stories," that is "woven from three strands: indigenous ways of knowing, scientific knowledge, and the story of an Anishinabekwe scientist trying to bring them together in service to what matters most. It is an intertwining of science, spirit, and story."[28] Her text is a series of memoirs, short stories, scientific data, and recollections that challenge traditional modes of knowledge dissemination. Along this vein, my study of images of wolves, deer, bison, polar bears, and Bigfoot has involved gathering historical information about the production of these images, ecological data about these species and the ecosystems they inhabit, and experiential knowledge. From my home in the suburbs of Chicago, I have attempted to observe and spend time with representatives from

[27] Paul Sutter, "Nature's Agents or Agents of Empire? Entomological Workers and Environmental Change during the Construction of the Panama Canal," *Isis* (2007): 724-754.
[28] Robin Wall Kimmerer, *Braiding Sweetgrass,* Minneapolis: Milkweed Editions, 2013, x.

the species I have studied over the course of writing this dissertation. This has included trips to the zoo to observe polar bears, visits to wolf sanctuaries, time in my local forest preserves to hopefully come upon deer, hours spent exploring the landscape of the reintroduced bison herd at Midewin National Tallgrass Prairie, and backpacking trips through Northern California and Oregon where Bigfoot purportedly roams. I have set my own camera traps to photograph deer and sat and sketched captive animals. It is my hope that art history, science, and my personal narrative are here combined to provide a richer interpretation of the images discussed and provide a robust challenge to the conservation aesthetic they present.

Similarly, ecologist Nicholas Reo incorporates indigenous ways of knowing into environmental studies in order to challenge the settler colonialism inherent in conservation work. Reo challenges conceptions of invasive species that use settler colonial discourse (literally referring to invasive species as colonizers) and settler timelines to determine what species should belong, such as setting ecological restoration goals as the year 1491.[29] Instead of the violent removal of invasive species, Reo looks to Anishinaabe beliefs that see migrating and shifting species as part of a natural way. Not viewed as threats to be removed, these new plants and animals can be learned to be lived with. This allows thinking beyond the native-nonnative binaries set up by traditional ecology when dealing with invasive species.[30] Through identifying the conservation aesthetic, this project seeks to move beyond the dialectal tension of the aesthetic. While emerging from a history of settler colonialism, these images are not bound by it. Instead, I seek to incorporate more ways of knowing that do more than simply identify the settler colonial limits of the image and find potential for thinking differently about the species depicted.

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[29] Nicholas J. Reo and Sarah A. Ogden, "Anishnaabe Aki: an indigenous perspective on the global threat of invasive species," *Sustainability Science* 13 (2018): 1443-14452.
[30] Ibid.

Chapter 1, "*Canis lupus* and *Odocoileus virginianus*: Ethically Relating to Wolves and Deer in the Trap Camera Photography of George Shiras," begins with the first animal generated photograph by lawyer, Pennsylvania representative, and amateur naturalist George Shiras. Shiras developed a camera technology using trip wires attached to cameras hidden in the northern Michigan woods to capture what he understood as animals in their own habitats without human intervention. He viewed this as animals photographing themselves. With whitetail deer populations dwindling due to over hunting, Shiras saw this method to track deer in order to photograph them, as a replacement for gun hunting. But, the only wolves pictured in his text *Hunting Wild Life with Camera and Flashlight* are either dead or in traps. Shiras advocated culling wolf populations, to end their predation on deer. This ethos changed the future of North American ecologies, contributing to the destruction of one species to conserve another. By celebrating his images as important firsts in the attempt to picture the animal world, Shiras participates in the colonial discourse historian Jean O'brien has named "firsting and lasting,"[31] contributing to the colonial work his ecological principles already wrought on the landscape of the Great Lakes region. Shiras' images reveal the naivety of his conservation efforts, recording the impossibility of removing the future human impact on the natural world.

Chapter 2, "*Bison bison*: Naturalizing bison extinction in *The Days of Bison Millions* by Carl Rungius," compares the painting by sporting artist Carl Rungius to paintings of prehistoric mammals by his contemporary, scientific illustrator Charles Knight. In his 1917 painting, *Days of Bison Millions*, Rungius depicts one male bison, standing on a bluff, looking out over a grazing herd. By looking at Rungius' painting as a response to late 19th-century bison eradication, I argue that this painting works to naturalize bison extinction while simultaneously

[31] Jean O'Brien, *Firsting and Lasting: Writing Indians out of Existence in New England.* (Minneapolis: University of Minnesota Press, 2010).

creating a vision of bison based on the fantasy of their past existence. In their visual links to the Vanishing Indian and prehistoric mammals, bison are believed to be representative of the past and symbolic of the mythology of the frontier. The conservation aesthetic only imagines bison as they were and denies their continued existence as a highly managed species.

Chapter 3, "*Ursus maritimus*: Picturing Climate Change in Hiroshi Sugimoto's *Polar Bear*," uses the analytic of the ecological uncanny to examine Sugimoto's series *Dioramas.* In the series Sugimoto photographed different diorama displays at AMNH. *Polar Bear*, from 1976, was one of his first in the series, and is a black and white image of the polar bear diorama: a lone bear, standing over a seal carcass in an Arctic wilderness. At first glance, the image appears almost lifelike, as if it is wildlife photography and not taxidermy. Sugimoto sees this series as exposing the construction of nature and providing an opportunity to imagine a post-human world in which nature recovers. The polar bear, however rendered, has become an icon of the fight against climate change. Through an interpretation informed by the ecological impacts of climate change on Arctic landscapes, I argue that *Polar Bear* represents not a hopeful post-human future, but rather indicates the irreparable damage wrought by climate change.

Chapter 4, "Bigfoot: Picturing the Paradox of Wilderness in Bigfoot Witness Photography," examines the role played by Bigfoot in the mythology of American wilderness and the ways in which attempts to picture the impossible creature photographically challenge that imaginary of wilderness. Bigfoot is essential to the formation of the idea of American wilderness; the idea that a creature so large could exist undiscovered upholds the narrative of exploration and discovery on which American identity was created. In the 20th century, Bigfoot continues the discourse of a wild frontier. Attempting to evidence her through photography is impossible, however, as Bigfoot does not exist in corporeal form. Bigfoot photography, then, is

mostly of witnesses, often pointing directly to an absence, but claiming it as a site of evidence, a place she once stood. By seeing Bigfoot as a challenge to the very nature of the medium used to picture her, I read Bigfoot witness photography also as a challenge to the mythologies of wilderness she upholds. In doing so, Bigfoot photography becomes an opportunity to unlearn wilderness and move beyond the settler dichotomy of nature and culture.

Overall, the dissertation identifies the conservation aesthetic in order to undo it, to unlearn the settler colonial institutions of conservation and wilderness. The following chapters take seriously the histories of art and visual culture as well as ecologies, environmental knowledges, and my own observations. My hope is that the histories of these images are not only present, but the histories of animal lives and ecologies are as well.

CHAPTER 1: *CANIS LUPUS* AND *ODOCOILEUS VIRGINIANUS:* ETHICALLY RELATING TO WOLVES AND DEER IN THE TRAP CAMERA PHOTOGRAPHY OF GEORGE SHIRAS[32]

Prologue: A Camera Hunt

In June of 1891, George Shiras, Pennsylvania congressman, amateur naturalist and photographer, trudged through the muddy conditions of the Midwestern early summer in an area likely close to Whitefish Lake in Northern Michigan. If you have ever visited Michigan in June, you know that, amongst the heat and humidity, Shiras would have been battling unbearable swarms of flies and mosquitoes. But he was on an important conservation mission; Shiras was set on testing his new photographic techniques to capture close-up photographs of deer before they were hunted to oblivion. Fighting the biting insects, and slipping through the mud, Shiras was able to locate a deer run, a pathway trampled down by continuous use of dozens of deer, near a lake shore. There he set up his automatic camera equipment, stretching a cord taut across the runway and attaching it to the camera shutter. He focused his camera on a pile of brush just beyond the wire. Now, after all that slogging through buggy and muggy conditions, all Shiras had to do was go back to camp and wait, hoping a deer would cross in front of the lens and set off the trip wire. While this was certainly a tedious process, it must have seemed more exciting and more likely to garner success in capturing close up images of wary deer than Shiras' previous attempts at photographing wildlife by sitting patiently in a hunting blind, sometimes with camera in hand, other times, set up yards away from the camera with a string he could pull to set off the shutter if an animal approached the camera. Imagine Shiras' excitement when, in this muggy and mosquito filled June of 1891, he returned to the camera set up to discover it had

[32] Portions of this chapter appear in Jessica Landau, "A better acquaintanceship with our fellows of the wild": George Shiras and the Limits of Trap Camera Photography", in *Ecocriticism and the Anthropocene in Nineteenth Century Art and Visual Culture* edited by Emily Gephart and Maura Coughlin, (London: Routledge, 2019): 158-166.

been set off. Then, after carrying all the heavy equipment out of the woods and returning back to his studio, he was finally able to develop the film and discover his automatic camera had pictured a doe, just out of focus, as she began to exit the picture frame on the right edge of the photograph. Shiras was successful in capturing what he would call "the first wild animal to take its own picture."[33] (Figure 6)

Introduction

In the Foreword to the second edition of George Shiras' *Hunting Wild Life with Camera and Flashlight*, published in 1936, Edward W. Nelson, the former chief of the U.S. Biological Survey, writes: "The great auk, passenger pigeon, and Carolina paroquet, as well as other birds, have gone forever, while the bison, prong-horned antelope, wapiti, and grizzly bear in the United States have been reduced from their former vast numbers to the danger point. These signs point to the urgent need of making field and photographic studies of our wild life before it becomes too late."[34] A congressional representative, amateur naturalist, and good friend of Teddy Roosevelt, Shiras believed in the power of the image, if not to prevent extinction, to preserve threatened animal populations, and at the very least, help slow the process of decimation and record their representation for posterity. After witnessing extreme declines in white tailed deer populations in the Northeast and Midwest of the United States, beginning in the mid-19th century, [35] Shiras, along with other nature photographers, saw photography as a conservation-

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[33] George Shiras, *Hunting Wild Life with Camera and Flashlight.* (Washington: National Geographic, 1936), 33.
[34] Edward W. Nelson, "Foreword," in *Hunting Wild Life with Camera and Flashlight,* v-xviii, xi.
[35] While it seems unimaginable today, whitetail deer were threatened in the second half of the 19th century, primarily because of mass hunting. Like their endangered contemporaries, the passenger pigeon and bison, whitetails faced extinction as urbanization destroyed their habitats and hunters systematically turned deer carcasses into trophies, evidence, that is, of patriarchal domination of the natural world. The species not only rebounded thanks to the concerted efforts of conservationists like Shiras, but were also allowed to overpopulate,

minded replacement to gun hunting. Through several years of experimenting with photographic techniques drawn from hunting practices Shiras developed a trap camera technology, utilizing trip wires to set off the camera shutter. His first trap image, from 1891, discussed above, was published in his manual on wildlife photography, *Hunting Wild Life with Camera and Flashlight*, with the caption, “This was the first wild animal to take its own picture.”[36] The image, produced when the doe tripped a wire attached to a camera mounted on a stake or a tree, played a part in Shiras’ attempts to reveal specifics about deer life by seemingly removing the human agency in the production of the photograph. These attempts hoped to conserve deer populations in the wild by limiting hunting as well as preserve deer visually. Yet, contemporaneous efforts by conservationists like Shiras ironically served to destroy the ecosystems of which deer were a part through equally destructive acts, especially the mass-slaughter of wolves. By superficially denying the human production of his photographs, Shiras attempted to erase human histories from these ecosystems even as parallel conservation efforts were simultaneously devastating them.

This process, which both acts to save deer populations from the brink of destruction and encourages ecologically destructive forces in order to do so, is illustrative of the conservation aesthetic. The conservation aesthetic, in other words, holds a dialectal tension between working to change public attitudes toward conservation and upholding problematic views of the natural world that destroy it. As a lawyer and congressional representative, Shiras was directly involved in legislation that aimed to preserve biodiversity, but he also believed in the preservative power of photography. In fact, he believed that photograph was an essential medium of wildlife preservation. The photographic process was an attempt to both physically preserve deer by

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due in part to conservation efforts like the eradication of natural predators, namely wolves. See William Stolzenburg, *Where the Wild Things Were*, (New York: Bloomsbury, 2008), 103-104.

[36] Shiras, 33.

turning hunters away from the gun and towards the camera and preserve images of deer for posterity. But, his attempts at deer conservation were also coupled with predator eradication programs. Like other images within the conservation aesthetic, Shiras' photographs function within a dialectic that actively preserves deer life while simultaneously threatening other species and the broader ecosystems within which they live.

While he captured countless images of wildlife in this manner, this chapter looks at "The first wild animal to take its own picture," in relation to a Shiras photograph of an animal in a more traditional trap: an image of a large gray or timber wolf ensnared, defeated and near collapse, with one leg caught in a steel hunting trap (Figure 7). In a text devoted to the taking of wildlife photography, which presumes the liveliness of the animals, this image is the only one depicting a live wolf in his book. The other representations of wolves are either of dead and hanging carcasses (Figures 8 and 9) or of a taxidermied animal, set up and photographed out of doors, yet tellingly stiff (Figure 10) (the link between photography and taxidermy is discussed further in chapter 3). When looked at together, the doe and the timber wolf—understood as agents, at least to some extent, in their own representation—break down the naivety of Shiras' idea of conservation and demonstrate the limits of trap camera photography.

Trap camera photography masquerades as an accurate depiction of wildlife, of how animals behave when humans are not around, but this is partially a fantasy, of course. Like many photographic images, what is not pictured here is as important as what is pictured. This is what Walter Benjamin has termed the optical unconscious. For Benjamin, the optical unconscious is made visible through the technology of photography, "with the close-up, space expands; with

slow motion, movement is extended…bringing to light entirely new structures of matter."[37] This term has been further adapted by many historians of photography including Rosalind Krauss, but my reading of the optical unconscious is especially influenced by its use by photo-historian Shawn Michelle Smith. Smith mobilizes the concept because of its particular ability to interpret images of violence.[38] By taking the idea of the optical unconscious alongside a methodology for looking at violent images as part of a civil contract developed by theorist Ariella Azoulay,[39] I attempt to extend the idea of an ethical viewership across species lines, in order to create a means of looking that holds viewers responsible to non-human animals of the past. Thus, while identifying the function of the conservation aesthetic in Shiras' photographs, I work to undo it, and instead, develop an ethical viewership that moves beyond the dialectics of the aesthetic.

The Strenuous Life and Companion Species

Like many well born men of the second half of the 19th century, Shiras fell in love with the outdoors as a child, hunting, fishing, hiking, and camping during his family's Northern Michigan vacations from their Pennsylvania home. Eventually becoming a lawyer and U.S. representative, Shiras was an active participant in Roosevelt's masculinist vision of the Strenuous Life – the idea that the United States will build a stronger nation if the country can raise a generation of men educated in patriotic duty through rugged experiences in sport and outdoor recreation. This lifestyle emphasized activities such as hunting, fishing, hiking, camping, and horseback riding – and led to the formation of groups like Ernest Thompson Seton's

[37] Walter Benjamin, "The Work of Art in the Age of its Technological Reproducibility," (1936) in *Walter Benjamin: Selected Writings, vol. 3, 1931-1938*, trans. Rodney Livingstone, ed. Michal W. Jennings, Howard Eiland, and Gary Smith, (Cambridge, MA: Belknap, 2002), 117

[38] See, especially for discussion of the optical unconscious and race and post-coloniality: Shawn Michelle Smith and Sharon Sliwinksi, "Introduction," in *Photography and the Optical Unconscious,* ed. Shawn Michelle Smith and Sharon Sliwinksi, Durham: Duke University Press, 2017: 1-31.

[39] Ariella Azoulay. The Civil Contract of Photography. New York: Zone Books, 2008.

Woodcraft Indians and eventually, the Boy Scouts. For Roosevelt, deer were the prime, or perhaps even primal, animal to hunt as a demonstration of the Strenuous Life. In fact, hunting deer, according to Roosevelt, was a quintessentially American activity. In a book about the ungulates of North America, he wrote, "They were the game which Daniel Boone followed during the closing decades of the eighteenth century, and David Crockett during the opening decades of the nineteenth; and now, at the outset of the twentieth century, it is probably not too much to say that ninety nine out of every hundred head of game killed in the United States are deer, elk, or antelope."[40] When compared to the history of hunting in Europe, which was almost exclusively an activity reserved for nobility on privately owned estates, hunting in the United States on public land was understood as a quintessential expression of American democracy and freedom. With the mass scale slaughter and near extinction of bison during the 19th century, deer became even more important as an expression of a specifically American masculinity, tied by Roosevelt, to the national mythologies of Crockett and Boone. At the same, however, Roosevelt lamented that "the most striking and melancholy feature in connection with American big game is the rapidity with which it has vanished."[41] This decline in game animal populations prompted Roosevelt's investment in preservation activities, such as setting aside large tracts of land, which he understood as a democratic project, and therefore also a part of nation building. Shiras was instrumental in this preservative effort. In his role as a law-maker, he was, for instance, a vocal supporter of setting aside wild land as game refuges, particularly focused on protecting habitat for large game like deer. Roosevelt determined that deer were a particularly good candidate for preservation because they "thrive best in semi-domestication."[42] For Roosevelt and his

[40] Theodore Roosevelt, *The Deer Family*, (London: MacMillan Company, 1902), 1.
[41] Ibid, 16.
[42] Ibid, 70.

contemporaries, deer had a special relationship with humans and were partially reliant on human action and legislation for their survival.

Though they are not a domesticated species, deer history has shaped and been shaped by human history in the way similar to the one that Donna Haraway describes as the co-constitution of dog and human history in *The Companion Species Manifesto.* For Haraway, companion species are products of naturecultures, meaning that humans and dogs have co-evolved side by side as companions and kin. Haraway writes: "Dogs are about the inescapable, contradictory story of relationships – co-constitutive relationships in which none of the partners pre-exist the relating, and the relating is never once and for all."[43] While Haraway refers specifically to dogs, she acknowledges that most domesticated animals function in this way as humans' significant others.

Deer may not have the status of domesticated companion species, but deer's standing as both subsistence meat and hunting trophy as well as the symbolic importance of deer in projections of patriarchal and colonialist identities means deer lives are certainly intertwined with human ones. Deer have served for centuries as a primary food source, focus of recreation for hunters (and source of national identity formation), and today pesky garden pests. Because of this long history, deer are symbolically understood as a point of access to the expression of a rugged American identity (think of even the obligatory white-tail taxidermy shoulder mount in every dive bar in middle-America). Roosevelt himself declares that deer thrive best in a state of semi-domestication but, it is likely that he meant Americans, particularly those who ascribed to his version of American masculinity, thrive best in this state as well. While deer may not be

[43] Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness*, (Chicago: Prickly Paradigm Press, 2003), 12.

humans' companion species precisely as Haraway has conceived the term, deer lives are certainly co-constituted alongside human history in the United States.

Even today deer populations rely, at least in part, on human management. A more detailed discussion of deer management will follow but it is important to note here that historically and especially in the state of Michigan, deer management has not been limited to hunting regulation or the creation of public game refuges. In the 1930s, for example, game management in Michigan was focused primarily on maintaining deer habitat and supplementing natural food during the colder winter months (although it was later discovered that these efforts had basically negligible impacts on deer populations).[44] While deer are often considered an important resource, management of public land always considers multiple competing resources, including grazing rights, access to timber, and wildlife habitat. These lengthy and intertwined histories mean that, despite the frequent belief that wild animals, like deer, are a species existing independently of humans, many wild animals aren't as far from domesticated species as humans often think.

Unlike Haraway and her dogs, though, sportsmen of the late 19th and early 20th centuries did not view these relationships as co-constitutional, or perhaps even relational. Instead, the deer, once hunted, became projections of the hunters themselves. Participating in the hunt created an opportunity to project oneself into the wilderness. Indeed, hunting narratives from the time often wrote from the perspective of the hunted animal or imagined a psychological connection between hunter and animal. This self-view was threatened by the dangerously shrinking populations of big game, and hunters like Roosevelt saw it as their democratic duty to protect deer populations and the landscapes in which they lived. Shiras, Roosevelt, and other prominent

[44] *Deer Range Improvement Program*, Michigan Department of Natural Resources (2017), https://www.michigan.gov/documents/dnr/DRIP_project_report_607688_7.pdf, 4.

game hunters of the time addressed the destructive habit of game hunting and searched instead for activities that provided the challenges of the Strenuous Life and connection with deer while also preventing the killing of game.

In her more recent book, *Staying with the Trouble: Making Kin in the Chthulucene*, Haraway makes the case for tentacular thinking, a way to embrace the many and multispecied entanglements, the making withs, and the ongoing stories that shape our present world.[45] As part of this effort, Haraway seeks collective ways of thinking that embrace multiple ways of making meaning and different ways of knowing. By seeking these multiple ways of knowing, Haraway attempts to make kin across species lines, not limited to companionship. Deer and humans may not be companion species, but we are certainly kin, entangled in a tentacular web that includes a multispecies world. And the story of human and deer entanglements cannot be told as a story of just two species – but many. This account is but one of many stories of the tentacular lives deer and humans share with wolves, for example.

Hunting with a Camera

A one-time avid hunter, Shiras eventually saw photography as the superior hunting technology, preserving animal life and the thrill of the chase simultaneously. He was certainly not alone in this thinking: George Bird Grinnell promoted picture taking over trophy hunting, for instance, while men like Carl Akeley, the famed taxidermist of the American Museum of Natural History and the Field Museum (discussed in chapter 3), and Roosevelt himself, soon sang the advantages of photography as a moral replacement for hunting. Roosevelt wrote frequently about the moral virtue of the game hunter versus the debasement of those who hunted for food or

[45] Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, (Durham: Duke University Press, 2016)

compensation (a claim which is motivated by classism and racism), he soon saw camera hunting as most virtuous, demonstrating virility while still saving animal life and recording it for posterity. In 1926, wildlife photographer William Nesbit published *How to Hunt with a Camera*, which declared his "conversion" to camera hunting – claiming that the process which recorded an animal quarry "for all time," was representative of a "mental evolution."[46] Many hunters and camera hunters sang the civilizing praises of cameras, but Shiras was unique in his devotion to what he understood as the perfection of images which seemingly removed the human presence.[47] In his efforts to record the natural world without a human presence, he instead recorded the profound impact humans have had on the ecosystems he pictured.

Shiras' early experiments with wildlife photography involved constructing blinds, in which he could hide at a distance from a passing animal, often waiting for hours, and pull a wire when one approached. While he captured images of unassuming deer this way, they were distant and small, and often out of focus. Shiras then mimicked the hunting practice of jacklighting, which had been outlawed in most states due to its cruelty. Jacklighting was the practice of paddling along a lake shore at night, silently searching for animal eyes reflecting light along the shore. When spotted, an assistant to the hunter would shine a spotlight or bright flash at the animal – which would momentarily stun it and allow the hunter to shoot it at point blank range. As deer populations were dwindling, hunters like Roosevelt believed that deer learned to be wary of hunters, and only came out after dark, making this an especially efficient hunting method. According the Roosevelt, previously and in places where they were not as hunted, deer were more diurnal.[48] In addition to the claims of cruelty, this hunting method was also less ideal

[46] Nesbit, quoted in Finis Dunaway "Hunting with the Camera: Nature Photography, Manliness, and Modern Memory, 1890-1930" in *Journal of American Studies* 34, no. 2 (Aug., 2000): 216.
[47] Dunaway, Finis. "Hunting with the Camera: Nature Photography," 215.
[48] Roosevelt, *The Deer Family,* 73

because it was associated with physical ease; this was a hunting practice for the tenderfoot. Roosevelt made clear distinctions between skillful hunting and what he considered easy methods, calling them "mere murder."[49] He does admit to having shot his first deer as a boy jacklighting, but still describes his disgust with the practice as one that "entails absolutely no skill in the hunter."[50] In contrast, he compares skilled hunters to soldiers: "To be able to ride through the woods and over rough country at full speed, rifle or shotgun in hand, and then to leap off and shoot at a running object, is to show that one has the qualities which made the cavalry of Forrest so formidable in the Civil War."[51] This kind of jingoist connection between hunters and soldiers was exactly the attitude Shiras sought to preserve through hunting photography.

Despite the fact that jacklighting was considered an ignoble hunting practice, it translated well into Shiras photographic practice. Replacing the camera with the gun removed the animal death and thus the cruelty of jacklighting, and for Shiras, camera hunting in Northern Michigan's lake country, shooting from a canoe or small boat positioned him easily in the local ecosystems. Moreover, the technical difficulties of translating jacklighting into photography made Shiras' efforts pass the difficulty test that hunting via horseback provided. Additionally, it made for much better pictures to try to capture still or slowly moving animals instead of photographing deer in full motion on the chase, which would have been technically nearly impossible in the late 19th century. While he certainly captured stunning images of animals using this process, creating high contrast images (bright animal against the black lake), he also ran into many technical troubles, including setting his boat on fire. This drove him to experiment further – searching for what he understood as a purer way to capture animal life.

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[49] Ibid, 82
[50] Ibid, 82.
[51] Ibid, 82

Working from the assumption that non-human animals in the wilderness were opposed to humanity and civilization, Shiras imagined a way to photograph animals that would seemingly remove human intervention from the creative act. Possibly inspired by Muybridge's recent work with animal locomotion,[52] Shiras invented a mechanism connected to a trip wire that would set off a flash and the camera shutter when tripped. Thus, he began setting up camera traps alongside riverbeds and lakeshores and other game trails throughout the forests, cleverly anticipating deer movement. "The first wild animal to take its own picture," discussed in the opening of this chapter, was the first of many of these automatic tripwire images. While he often captioned these images as if the deer had been imaged unwittingly, he just as frequently baited the traps with salted vegetables to draw the deer in front of his lens.

By demonstrating his ability to hunt and track a deer to picture it in this way, Shiras proved his rugged acumen and naturalist's knowledge. Yet "the first wild animal to take its own picture" (Figure 6) also seemingly removes the photographer's presence altogether. The image is blurry, almost shaky, and lacks the careful composition of a studied photographer's hand. The doe has tripped the wire just as she begins to exit the frame and the fallen logs behind her are in much better focus than she is. Without the caption published in Shiras's *Hunting Wild Life with Camera and Flashlight*, the viewer might assume this to be a poorly timed, clumsy amateur photograph. But with the caption, Shiras all but attributes the image to the doe herself. In response to the threat of decreasing populations, this doe is not just saved from the hunter's rifle, she marks her physical presence through the record of this image.

[52] Beginning in the 1870s, Eadward Muybridge produced images of animals in motion, first with horses at Stanford University, by attaching trip wires to batteries of cameras positioned along a race track. As the horses ran across the track in front of the cameras, the wires would trigger the camera shutters sequentially and capture the animals in motion.

I interpret the ongoing presence of the doe, not just during her lifetime in the late 19th and perhaps early 20th centuries, but also in relation to viewers today. In order to do this, I rely on theories of photography that provide methods to critically look at images of violence, as the history of hunting photography should similarly be considered one of the picturing of violence. In her study of photography, *At the Edge of Sight: Photography and the Unseen*, Shawn Michelle Smith argues that photography has a special ability to reveal the unseen in that it operates at the limits of our cultural vision. Borrowing the term "optical unconscious" from theorist Walter Benjamin, which Smith defines as "photography's ability to make visible what usually evades perception," she is interested in the details that have only become visible to the human eye through photography.[53] Smith warns, however, that while photography has the ability to expand our sight, it is also has the power to limit it. She writes that "as it extended the realm of the visible, photography also suggested that some things would remain forever out of sight."[54] She understands, for example, the ways in which 20th-century lynching photographs are the optical unconscious of the photographs of torture at Abu Ghraib prison, underlying the horrors at Abu Ghraib with America's long history of racialized violence. Through the process of photographing such events, and therefore revealing the optical unconscious, images such as the ones depicting tortured POWs at Abu Ghraib, begin to uncover the many things we had been unable to see. As Smith states, "as photography shows us more, it also shows us how much we don't see, how much our ordinary seeing is blind."[55] This can be an uncomfortable revelation, as it shows how unstable our cultural vision has been. While Smith's analysis is centered around images that can be understood as representations of race and identity in America, including violent images like of

[53] Shawn Michelle Smith, *At the Edge of Sight: Photography and the Unseen* (Durham: Duke University Press, 2013). 4.
[54] Ibid, 8.
[55] Ibid, 4.

Abu Ghraib, her arguments extend well to early trap camera photography. Even though photography has the ability to expand vision, it also has the capacity to continue to limit it, to "reinforce the invisibility of some things by overtly focusing on others."[56] Because of this, the optical unconscious needs to be considered not only for what it helps bring into view, but also for what it continues to not picture. In this way, Smith's interest in the optical unconscious calls for an involved viewer, who is implicated, in some ways, in the production of circumstances, even if unseen, of the production of the image.

This need for an implicated viewer of photography is developed into a call for an ethical one by Azoulay. In *The Civil Contract of Photography*, Azoulay identifies the special qualities of the medium that create such a connection, between the photographed subject, the photographer, and the viewer. She writes: "Every photograph of others bears the traces of the meeting between the photographed persons and the photographer, neither of whom can, on their own, determine how this meeting will be inscribed in the resulting image."[57] Here, photographs function not as a record of a past moment, but rather an ongoing event. The ongoing event of photography includes not just the photographed subject and the photographer, but also any future viewers. While they all may not be in equal positions of power, the event of the photograph creates opportunities for recognition between the viewer and the viewed. For Azoulay, photographs, and particularly photographs of suffering, require a responsibility of the viewer, upon whom the viewed can make demands despite distances of space or time. One might by analogy include distances between species.

Early camera hunters claimed their images, like the optical unconscious, revealed otherwise unseen qualities about animal life. In his article, "A Revolution in Nature Pictures,"

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[56] Ibid, 14.
[57] Azoulay, *The Civil Contract of Photography*, 11.

from 1900, A. Radclyffe Dugmore argued "As a recorder of facts [the camera] is of great scientific value, *for it cannot lie*, and it records in an unmistakable form every detail presented, whether it be the daily growth of a nestling or the exquisite detail of the bird's nest."[58] For photographers like Dugmore, the camera revealed not only a visual "truth," but more importantly, a truth which was previously unavailable to the naked eye, like the up close view of a growing baby bird, allowing viewers unprecedented access to the world of non-human animals. These photographers imagined their pictures as an expansion of sight, creating opportunities to view animals and the natural world that did not exist before.

"The first wild animal to take its own picture," is, at first glance, almost certainly not an image of violence, even if we understand its place in the history of hunting. Unlike early camera hunting images in which trophies are displayed as dead animals alongside the hunter, or are about to be shot, the knowledge that this is a trap image removes any threat of gun violence to the animal body. Yet, the violence and bloodiness of the hunt exists in the optical unconscious. While Shiras claims the deer photographs herself, informed viewers are still aware of the history of hunting, including violent practices, like jacklighting, which led up to the creation of this image. In the photograph, the viewer is positioned as the hunter-- the wide flank of the deer revealed to us almost as if through the sight of a rifle from within a blind or atop a deer stand. One could imagine this as the moment just before a hunter's shot is fired, for instance.

Putting "The first wild animal to take its own picture," aside for a moment, it's worth noting that camera hunting often seeks to erase the violence inherent in the production of the image. For instance, Allen G. and Mary Wallihan, the husband and wife team who published one of the first animal photobooks in the United States in 1894, often photographed cornered animals just before they shot them, shifting away from trophy pictures of a carcass. This was also

[58] Dugmore, quoted in Dunaway, 211.

common practice for another husband and wife animal photographer team, Martin and Osa Johnson, who frequently shot animals immediately after taking their pictures on African safaris. Their publications are full of narratives describing Osa standing with a rifle above her husband's shoulder as he photographed approaching animals.

Nevertheless, Martin wrote frequently about his general disdain for hunting. In *Camera Trails in Africa*. Martin states for example:

> I did not shoot many animals in Africa. A live animal is worth more to a photographer than a dead one. Besides, I do not take much joy in killing. I saw enough of the wholesale slaughter of innocuous animals – the sort of thing that some travelers regard as sport – to put me thoroughly out of sympathy with big-game hunting. Through watching the animals and their ways, I grew fond of them and acquired a protective feeling toward them such as one has toward children.[59]

Though here Martin claims to abhor killing animals, the same text is full of stories of animal killings necessitated by the physical proximity required by his and Osa's photographic practice. One account includes Martin's attempts to photograph a leopard up close. The story begins with Osa shooting the leopard to draw it out of a thicket it was hiding in. The shot terrified, injured, and angered the leopard, who leapt out of the bushes, snarling at the Johnsons. Martin continues: "I whirled my camera toward him and ground away at the crank waiting for him to spring. The thought of recording that spring in motion-pictures made me forget all the stories I had heard of maulings received by men from leopards."[60] Unfortunately for Martin's filmic project, and to his dismay, Osa – in an act of mercy to put the animal out of the misery from the first shot, which apparently wounded the animal more than she had intended—shot the animal again, and killed it, before it had a chance to spring forward.

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[59] Martin Johnson, *Camera Trails in Africa: A Photographer's Safari in British East Africa*, originally published 1924, Santa Barbara: The Narrative Press, 2001: 162.
[60] Ibid, 88.

Most of these killings remain unseen in the Johnson's photographs and films, perhaps with the exception of zebra carcasses that are used to bait a photographic blind for lions and other scavengers. Yet, two images published in Martin's 1928 text *Safari: A Saga of the African Blue*, illustrate the very moment that Osa shot a bull rhino that had apparently charged her husband while he was filming a juvenile rhino in a group (Figure 11). This photograph, which the caption tells readers was "made at the instant Osa shot him at a distance of thirteen feet from the camera,"[61] serves as a visual reminder of the optical unconscious masked by the Johnsons entire oeuvre of wildlife photography. Even though the caption tells viewers this is clearly an image of hunting, the hunter is still hidden, behind the lens of the camera. Additionally, this image masks the destruction wrought to African wildlife by big game hunting and industrialization more broadly, not to mention the slow violence brought by European colonization. Though I cannot tell for absolute certain, this particular rhino appears to be a black rhinoceros, a critically endangered species with just around 3,000 individuals left in the wild and extinct across the majority of their historical range.

Shiras' trap images, like "the first wild animal to take its own picture," mask the animal death in the optical conscious even further. Since the caption tells us no human was present for the taking of the photograph, viewers can assume no human activity disturbed the seemingly natural behavior of the deer, and correspondingly, that there were no gun shots. By claiming to eliminate the human from the production of the image, Shiras also claims to remove the potential for human violence. The doe in "the first wild animal to take its own picture," illustrates this simply by getting away. The poorly framed image evidences not only the lack of human composer, but also that she will leave the scene of the picture unharmed.

[61] Martin Johnson, *Safari: A Saga of the African Blue*, New York: G.P. Putnam's Sons 1928, 144.

Art historian Annie Ronan discusses Winslow Homer's Adirondack watercolors of deer as a response to camera hunting's denial of the unconscious violence inherent in the photograph. Ronan argues that Homer's watercolors force viewers into a confrontation with the gaze of pursued deer, in order to make them face the violence of problematic hunting techniques. These included water hounding, in which deer were chased by a pack of dogs into a body of water and held at bay until they were exhausted enough from swimming to be easily approached, sometimes even grabbed by hand by a hunter in a canoe. It is not clear whether Homer was a advocate of such cruel practices, but his watercolors create sympathy with the animal and present the deer as a being whose gaze can be met, in spite, or perhaps, because of these cruel treatments.[62]

While Shiras' deer imagery, particularly his jacklighting photographs, may have been exactly the type of photography Homer was responding to, his *Hunting Wild Life with Camera and Flashlight* includes photographs of one species within which violence against animals is overtly pictured: the gray or timber wolf. In a heavily illustrated volume, only four photographs are of wolves. Of the four, only one from 1907, is of a live wolf, caught in a trap (Figure 7). The caption for this image reads: "This cruel marauder was captured on July 29, 1907, near the author's camp in Northern Michigan. Immediately after being photographed the creature collapsed from fear and overexertion and lay in a dying condition as a bullet ended its life."[63] For this unfortunate wolf, being photographed was a step in the extermination process. Shiras gives more detail about the capture of this animal, who, after being trapped overnight, dragged herself more than 20 yards as she struggled to free herself from the trap. Upon finding the wolf, Shiras writes that "at the first snap of the camera, the animal collapsed and refused to move."

[62] Annie Ronan, "Capturing Cruelty: Camera Hunting, Water Killing, and Winslow Homer's Adirondack Deer," *American Art* 31 2 (2017): 52-79.
[63] Shiras, 264.

Here, the camera is equal to the gun, delivering the fatal shot as quickly as his rifle will. But, Shiras continues, and tells readers: "I certainly had never expected to feel sympathy for the plight of such a marauder, but this animal's bloodshot eyes, protruding tongue, and entire lack of resistance would have appealed to its most relentless enemy, and I hastened its end with a shot."[64]

In response to the decreasing deer populations, early 20th-century conservation policy agreed one of the best solutions to save deer was to eradicate their greatest natural predator. With support from ranching and farming communities, and increasing bounties on their pelts, wolf slaughter became good business, continuing well into the late 20th-century. While wolves and their advocates are still battling for protection, putting them on and off the endangered species list, deer populations have, as we know, rebounded tremendously. Without understanding the importance of an apex predator to an ecosystem's health, Shiras readily advocated the killing of wolves, participating in their slaughter in the name of conserving deer populations. This duality—the drive to conserve deer by culling wolves-- is precisely the dialectic of the conservation aesthetic.

Hunting Photography's Firstings and Lastings

Photography is both a technology and an artform. This fact has led some photographers (and photographic historians) to obsess over demonstrations of technological mastery, and one history of photography can be told in terms of firsts: the first photograph, the first flash photograph, the first photograph of war, and many others. Shiras undoubtedly participates in this race to the firsts with his caption of "the first wild animal to take its own picture." In fact, his volume on wildlife photography presents approximately 15 images which espouse to be the first

[64] Ibid, 262.

of something. These include “The first successful flashlight picture ever taken of a wild animal” (Figure 12), the “First night picture of a moose ever taken” (Figure 13), and even the “first flashlight picture of a beaver cutting down a tree” (Figure 14).[65] Admittedly, Shiras was preoccupied with the innovation of wildlife photography, but, his frequent use of these firsts also participates in a specific colonializing discourse identified by historian Jean O’Brien as firsting and lasting.

Firsting and lasting is a tool of settler colonialism. It creates discourses in which settlers “claimed to be the first people who established cultures and institutions worthy of notice, thereby subtly declaring the invalidity of Indian ways of life…collectively, the effect of their ideological labor is to appropriate the category ‘indigenous’ away from Indians and for themselves.”[66] This is accomplished through claims of being the first: the first child born in the ‘New World,’ thereby replacing all native children born before, or declaring an Indian to be the last of something, such as the last native speaker of a specific language, cementing Indians into the past and denying their participation in modernity. Additionally, and even more insidiously, the discourse of lasting participates in Indian extinction narratives, meaning, lasting makes claims to modernity’s inaccessibility to Indians; it claims that Indians no longer exist and can be and perhaps even should be replaced. According to O’Brien, American settler colonial society relies on the belief that Indians belong to the past, and that white colonial control over modernity allows colonizers to replace the Indian. O’Brien describes this process as part of a purification narrative.

I introduce O’Brien’s terminology here not to equate Indians and nonhuman animals—in no way do I seek to do this—but rather as an analytic to shed light on the settler colonial

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[65] Ibid, 43, 154, 305.
[66] Jean M. O’Brien, *Firsting and Lasting: Writing Indians out of Existence in New England,* (Minneapolis: University of Minnesota Press, 2010), xxii.

implications of conservation action, and the complicated ways in which hunting and even conservation are mobilized to fuel settler colonial aims. By using the language of "firsts," Shiras participates in this discourse of erasure and purification. Shiras' claims to be the first person to capture a flash image of wild ducks, or a moose at night, are likely true – but the veracity of his firsts is not what is at stake here. What matters is the way his chosen discourse presents these landscapes (and animals) as conquerable, thereby erasing the people who have sovereign and ancestral claims to the lands he is picturing. "The first wild animal to take its own picture," was taken in 1891, just after the ostensive frontier was officially declared closed. The idea of a closed frontier created anxiety in the United States, particularly about the state of American masculinity, leading to efforts like Roosevelt's Strenuous Life. In part, Shiras' images, and multiple claims to firsts are also an answer to that anxiety, creating photographic frontiers to conquer, and presenting landscapes represented and contained, conquered, and controlled – yet all pictured without an apparent or direct human influence. Settler colonialism is insidious because of its subtlety; it has you believe there are not and have never been people in these landscapes, save for the photographer who was able to manipulate these backcountry sites enough to present these images.

Shiras' use of the discourse of firsting and lasting demonstrates the dialectal tension of the conservation aesthetic, however, in that he presents white tail deer as both representative of these famous and modern firsts *and* as the last of their kind. As deer populations were dangerously low, Shiras took photographs of deer carcasses in order to represent the animals as examples of lasts, awaiting intervention from the white savior in the form of conservation action and legislation. Shiras' images of these dead deer as well as his captions for them sought to further villainize wolves, moving a large part of the responsibility for dwindling deer numbers

from white hunters to wolves. For example, in an image of a dead doe, lying prone along a lakeshore, the caption reads, "Though unscarred, it was a victim of gray wolves," (Figure 15). In this particular photograph, Shiras plays into narratives of purity to render sympathy for the fallen doe. Her perfectly white belly is presented to the viewer, almost at the center of the image, and her face is tilted upwards, away from the viewer, reminiscent of romantic Indian captive paintings, such as *The Captive* by E. Irving Couse from 1892 (Figure 16). Shiras' full caption leads viewers to consider the doe's purity even further: "Though unscarred, it was a victim of gray wolves. This deer was found as it lay dead from exhaustion after it had escaped its pursuers by swimming the chilling waters of Whitefish Lake."[67] The wolves here are presented as wasteful, much like the characterization of subsistence hunters during this period who were majority immigrants, indigenous, or other people of color.

Shiras uses other photographs to continue his demonstration of the lasting of deer – like the image of what is left of a deer carcass in the snow (Figure 17). In his book, *Hunting Wild Life with Camera and Flashlight*, this is the image that appears above the photograph of the wolf in the trap (Figure 7). The carcass, unrecognizable as any specific animal, or even necessarily as animal remains, is captioned: "The wolves have had a feast. Many deer are killed by their predatory foes in northern Michigan when the lakes and streams are frozen over and the animals are in yards. Most of the victims were large bucks, which become exhausted more quickly than does and younger males."[68] This image, which presents the fragility of deer life, also denounces the wolf clearly as a destructive force. Interestingly, the shape of the carcass mirrors the form of the wolf's body below it on the page (Figure 18), her outstretched foreleg mimicking the piece of flesh that extends from the center of the frame to the right of the image. Here, the two animals

[67] Shiras, 270.
[68] Ibid, 264.

are visually linked and viewers are left to believe that they cannot coexist peacefully. One of these two species has to go. Men like Shiras believed they had the power and authority to step in and decide which lasting they preferred. Hunters and conservationists lamented wolves as the last of their kind at the same time that they were actively killing the canids.

Despite this settler colonial language, Shiras had complicated, and sometimes even subversive relationships with Indigenous people. Shiras dedicates one chapter in *Hunting Wild Life with Camera and Flashlight* to describing the various wilderness guides he and his family used over many years of hunting, fishing, and camera hunting. Shiras often used patronizing tones to describe his Indigenous guides, yet he is also careful to portray each one as an individual, avoiding descriptions that rely on types such as "Indian guide." He explains his belief that despite differences of race or class, "in the wilds a companionship is developed between man and man more quickly than in most other situations," and that he and his guides were likely to "treat the outing as a joint affair where distinction between employer and employee is largely ignored."[69] To illustrate this point, Shiras tells personal and intimate stories of five guides he knew very well: a Sioux man who was raised in Ojibwe territory named Francis Nolan or Bakakadoose (whom Shiras called Jack La Pete); an Ojibwe man named Fred Cadott; Samson Noll, who escaped slavery on the Underground Railroad; Jake Brown, whom Shiras calls a "typical American;" and a Norwegian immigrant named John Hammer. This, of course, does not mean that Shiras' discussions of his guides are without problems. The fact that he includes descriptions and pictures of guides in a text otherwise about animals is itself very telling. Shiras often jests at the speech patterns or cultural customs of his guides, recounting stories that make them appear simple or reliant on Shiras, despite his simultaneous insistence that he frequently depended upon them wholly for his own survival. Shiras' descriptions of his guides demonstrate

[69] Ibid, 417.

the complexity of these relationships. At the same time that he considered these men to be confidants and close friends, he simultaneously perpetuated settler colonialist policies and practices. This included support for game laws that prevented subsistence hunting for the working class, particularly in rural areas where people relied on such practice for food and income. Just as his relationship to conservation and hunting was complicated, Shiras had a very complicated relationship with the Indigenous people he knew well. He simultaneously wrote about these relationships in terms that were subversive of and reified settler colonialism.

Deer Conservation

By the time the second edition of *Hunting Wild Life with Camera and Flashlight* was published in 1936, Shiras estimated that there were approximately 75,000 deer killed each year from hunting in Michigan alone. While this may not seem like an overwhelming number by today's population standards, deer populations had plummeted to only 500,000 nationwide by the middle of the 19th-century. Starting in 1859, Michigan began limiting the open season on hunting deer to just August through December. By 1923, due to the still decreasing white-tail populations, the state limited this hunting season to only two weeks: November 15-December 1.[70] In addition to hunting seasons, other late 19th-and early 20th-century laws aided in deer conservation. In 1881, a law was passed that limited the sale of venison to just eight days after the hunting season closed, which meant that carcasses couldn't be transported after this time either. Over the next few years, hunting deer with hounds was outlawed, as was the use of snares and steel traps, artificial salt licks, and jacklighting. Similar laws were passed in many other states, with Wisconsin and Shiras' home state of Pennsylvania being leaders along with

[70] Ibid, 441.

Michigan, though none of them would have been referred to as conservation laws – the phrase did not enter the lexicon until 1907. Instead, these regulations were known as game protection.[71]

Most game protection legislation originated from northeastern elite sportsmen's clubs such as the Boone and Crocket Club or the New York Sportsmen Club. These clubs fostered membership of such well-known hunters as Roosevelt, George Bird Grinnell, editor of *Forest and Stream* magazine, and William Temple Hornaday, Smithsonian taxidermist and one of the founders of the New York Zoological Society. While early game protection laws were invested in maintaining game animal populations to support trophy hunting by the elite, hunters like Shiras and Hornaday began to shift with the advent of conservation and became invested in legislation and action that would preserve animal life. Hornaday's conservation efforts, focused primarily on bison, will be discussed in chapter 2.

Game protection focused on increasing numbers of game animals through practices such as predator eradication and by targeting market hunting and subsistence hunting. These hunting practices, which either brought meat to market to be purchased by others or directly to the hunter's own table, were practiced mainly by the working class. As such, subsistence and market hunting were much more likely to be accused of wasteful practices than trophy hunting. By 1895, in Michigan, shortened hunting seasons were coupled with a new requirement for hunting licenses, which limited a hunter to five deer per season.[72] In addition to limiting the number of deer harvested, licenses increased revenue going to federal, state, and local natural resource agencies. Whitetail hunters paid about $11,350,000 in licenses alone in 1949.[73] This sum, not adjusted for inflation, does not include any fines or additional permits required. Trophy hunters and game protectors like Shiras had hoped that these licenses would put market hunters out of

[71] Spiro, *Defending the Master Race*, 20.
[72] Shiras, *Hunting Wild Life*, 441.
[73] Harry D. Ruhl, "Hunting the Whitetail," *The Deer of North America* (1956): 328.

business. Instead, the licenses simply raised the cost of venison, allowing market hunters to continue their business and afford the costly licenses.

In response, Michigan was the first state to pass a buck law. A buck law limits the harvesting each season to only bucks, thus offering protection to does and fawns all year round. Shiras celebrated this law not only because it put severe limits on market hunters, but also because he believed it was scientifically proven to increase deer populations. According to a study he sponsored from the Biological Survey in 1917, over a ten year period, 24 does would be capable of producing 3,120 offspring – removing one doe from this equation reduces that potential population by 130 deer.[74] For Shiras, shooting a buck meant taking one life, but killing a doe meant destroying at least 130 potential deer. Shiras lamented the indiscriminate killing of does before the buck laws: "We went on killing the females year in and out, under the blind assumption that it would make no particular difference in the future supply. Actually, such indiscriminate killing represented the difference between extinction and perpetuation."[75] Coupled with legislation outlawing the sale of venison, buck laws all but wiped out market hunting, setting the stage for deer populations to flourish. These kinds of limits, which targeted the working class, are exactly the kind of classist policies that hunting photography hopes to hide, and relegate to the optical unconscious, by focusing visually on sport hunting.

Of course, the increase in hunting legislation also meant an increase in poaching, as many hunters who relied on deer and other protected game for food would continue to hunt. In 1925, Shiras prepared a bill for the Michigan legislature aimed at preventing illegal hunting known as "The Shiras Gun Law." The Shiras Gun Law prohibited even the carrying of hunting firearms within a game area outside of the hunting season without a special permit. Before this law,

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[74] Shiras, 442.
[75] Ibid, 442.

poachers had to be caught red-handed, that is, with the deer body outside of hunting season or without a license. After 1925, The Shiras Gun Law, and similar laws in other states, made it much easier to catch and fine offenders. In the first year the law was implemented, Michigan apprehended 100 offenders, resulting in $2,115 of fines, 29 confiscated shotguns, and 37 confiscated rifles.[76]

Game refuges were another important step in the protection of deer populations. An amendment to Michigan's game law in 1929 set aside $1.20 from every deer license sold to go towards the preservation of land to be used as game refuges. While this law was eventually repealed in 1949, in those 20 twenty years, the state raised $5,000,000 for wildlife management.[77] Shiras envisioned game refuges that would be surrounded by public hunting grounds. The refuges, he believed, would aid hunting regulation by preserving stable deer populations. Shiras assumed that once populations reached capacity of a certain protected area, individual deer would venture outside of the refuge, onto public hunting grounds, to seek food. Allowing the hunting of these few bucks, would, according to Shiras, control the protected population without removing too many bucks from the potential breeding stock. Additionally, preservation of public hunting grounds, for Shiras, was essential in maintaining what he understood as the democratic nature of American hunting. "All fair-minded sportsmen of today recognize the propriety of maintaining the American system of shooting," Shiras wrote, "where the average man has a chance, and is not selfishly denied such opportunities as is the case in most European countries."[78]

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[76] Ibid, 445

[77] *Deer Range Improvement Program*, Michigan Department of Natural Resources (2017), https://www.michigan.gov/documents/dnr/DRIP_project_report_607688_7.pdf, 4.

[78] Shiras, 447

By removing opportunities for market and subsistence hunting, however, elite hunters like Shiras also challenged the democratic nature of hunting wildlife. Legislation throughout the late 19th- and early 20th-centuries would see gun permits limited only to American citizens, essentially outlawing subsistence hunting by immigrants. Park and game refuge boundaries crossed ancestral Indigenous hunting grounds, turning essential foodways and cultural practices into poaching. Hunting during this period was clearly undemocratic. Game protection laws also had deleterious impacts on predator species. Only large game was considered worthy of legal protection, and wolves, understood like subsistence and market hunting to be a direct threat to stable deer populations, were not only unworthy of legal protection, but of general survival. The last set of legal practices put in place to defend deer was an all out war on wolves, encouraged by federal and state policies.

Wolf Wars

Wolf eradication was an integral part of the process of nation building in the United States, serving purposes far beyond the protection of deer populations. To understand the massive scale of this eradication program, before the late 19th-century, there were around 1 to 1.5 million Great Plains wolves (the population segment of gray wolves east of the Rockies).[79] Today, there are fewer than 4,000. Beginning in the colonial period, wolves were often equated with Native Americans and seen as a threat to civilization and prosperity.[80] Writer Barry Lopez notes equivalencies in attitudes towards the 19th century Indian Wars and the wolf eradication

[79] Dan Flores, *American Serengeti*, 146.

[80] Historian Michael Wise writes about the ways in which wolves and Blackfoot Indians were often equated as predators, at odds with the productive nature of capitalism, like the beef and whiskey trades in the Rockies in *Producing Predators: Wolves, Work, and Conquest in the Northern Rockies* (Lincoln: University of Nebraska Press, 2016)

program he dubs the "Wolf Wars."[81] The detailed history of this war on wolves is hard to stomach, especially for contemporary ears, unused to animal slaughter and such direct violence. Indeed, wolf slaughter was undiscriminating, killing any and all wolves throughout most of the 19th and 20th centuries. Wolfers' favored weapon of choice was strychnine poisoning, itself a product of colonialism, produced from the seed of an East Indian fruit and manufactured in Pennsylvania as early as 1834.[82] Strychnine was most often dosed through ungulate carcasses, left for wolves to scavenge on. These poisoned carcasses did not attract only wolves of course, but also thousands of domestic dogs, foxes, coyotes, and other scavengers including ravens, magpies, and eagles. Dying wolves salivated heavily in their last moments, frequently poisoning the grass in the areas they died, later killing any ungulates, like horses, ponies, and bison who grazed on the poisoned grass. Strychnine killed through asphyxiation, but only after, as environmental historian Dan Flores describes, wracking the wolf's body "with such violence that death left it in a signature pose, a corpse with rigidly arched spinal column."[83] Other eradication methods included steel traps, trapping a few individuals and infecting them with sarcoptic mange before releasing them,[84] and later, gunning down packs from helicopters. Wolfers, as is probably expected, communicated frequently in language reminiscent of lasting. Many hunters bragged about killing the last wolf in their locality, region, or even nationally, although these stories were so frequent, it seems there were many famous "last wolves," in some areas.

Wolfing programs were total and all-encompassing in their destruction. Thanks to these efforts, wolves were basically eliminated from the Eastern states by 1900, save for a few

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[81]He quotes the parallels in the expansion westward, laying out poisoned carcasses with distributing blankets poisoned with smallpox, and digging out dens to kill pubs with kidnapping children and forcing them into boarding schools Barry Lopez, *Of Wolves and Men* (New York: Charles Scribner's Sons, 1978), 170.
[82] Flores, 149.
[83] Ibid, 149.
[84] Flores, 150.

secluded populations in the Great Lakes region. By 1930 they were all but gone from the Western states as well. In 1950, the only wolves in the United States were on Isle Royale, in remote areas of Minnesota, and the few stray individuals who sometimes crossed the border with Mexico.[85] Fortunately, wolves were one of the first animals to be listed as endangered after the passage of the ESA in 1973, and the general environmentalist attitude of the 1970s, which came to view the wolf as a symbol for wilderness (problematic for a slew of other reasons, some of which will be discussed in chapter 4), encouraged wolf populations to rebound. Even so, wolves only exist in a fraction of their historic range. There are only about 16,500 gray wolves in the United States today, with around 7,000-11,000 of those individuals living in Alaska.[86]

Despite their original listing, gray wolves have had a constant battle with the ESA and with federal protection. This battle is often waged over listing wolves as an entire species, as separate subspecies, or as designated population groups. Since 1978 it has been debated whether or not whole species, of any animal, should be listed as a whole group if subspecies exist. Furthermore, it is controversial whether or not wolf subspecies are really subspecies or simply distinct population groups, with some biologists arguing that there are as many as 28 subspecies of wolves in North America.[87] One argument for the protection of subspecies is that it allows ecologists and biologists to better target the animals and habitats most in need of protection and pool resources to the neediest situations. Subspecies protection creates a specific protection for a limited area, instead of sending resources to conserve historic ranges that the broader species may no longer inhabit. But this also means that a focus on subspecies removes the umbrella

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[85] Warren B. Ballard and Philip S. Gipson, "Wolf," in Stephen Demarais and Paul R. Krausman, ed. *Ecology and Management of Large Mammals in North America,* (Upper Saddle River, NJ: Prentice Hall, 2000), 321.
[86] Red wolves have fared far worse than gray wolves, with only 12 known individuals alive in the wilds of the Southeastern United States.
[87] Kristina Alexander and M. Lynne Corn, "Gray Wolves Under the Endangered Species Act (ESA): Distinct Population Segments and Experimental Populations," in *Gray Wolves and the Endangered Species Act*, ed. Chase Ewing and Roger H. Cooley, (New York: Nova Science Publishing, 2012), 5.

protections for the species writ large and leaves some populations vulnerable. In 1974, U.S. Fish and Wildlife Services (USFWS) had listed the wolf species in its entirety, but in 2011, USFWS decided this was done in error, and today only lists subspecies of wolves with very specific (and smaller) ranges as protected.[88]

A 1978 amendment to the ESA also created the concept of Distinct Population Segments (DPS), which allowed the division of species or subspecies based on geographic or genetic distinctions. In 1996, USFWS introduced a DPS policy in the guise of increasing agency efficiency in protecting the most vulnerable populations instead of using efforts to protect an entire species. Congress recommended that this distinction be used sparingly, since it could, in effect, be a way to remove essentially an entire species from being listed by dividing it instead into these smaller DPS groups. This happened with six listings, four of which are DPS groups of gray wolves. The other two are the Columbian white-tailed deer, delisted in 2003 and listed instead as a Douglas County DPS and the Grizzly Bear, delisted in 2003 and listed as the Yellowstone DPS. The wolf, as a whole species, was down listed on the very same day it received a DPS status.[89]

The ESA is a federal regulation but relies heavily on the states for enforcement and ensuring public participation in the listing process. This is particularly challenging for animals with ranges as large as that of the gray wolf. Frequently crossing state boundaries and rarely remaining solely within areas designated as critical habitat, wolves migrate in and out of protection on a regular basis – even as the law is attempting to protect them. These complications, which can often be read as attempts to cut back protection for wolves, can be understood as part of the complicated history humans have co-constituted alongside them.

[88] Ibid, 4.
[89] Ibid, 9-10.

Wolves are often feared, understood as pests and generally undervalued for the role they play in their ecosystems. Wolves shift in and out of protected status as they shift in out of our imaginary, as adversary, as symbol of the wilderness and wildness, and at moments, and hopefully increasingly so, as actual wolves.

The war on wolves consumed many aspects of American culture, including the representation of wolves. A number of artists contemporary to Shiras perpetuated the myth of the wolf as a ferocious villian, but few as successfully as Frederic Remington. Remington, a New York born, Yale educated, self-proclaimed cowboy, nativist, anti-Semite, racist, and loud proponent of the Strenuous Life operated in the same circles as Shiras and Roosevelt. Many of his images of the American West, painted in his suburban New York studio, depict it as a wild frontier, with heroic cowboys, and – if not always violent, then almost exclusively primitive – Indians. In the last few years of his life, Remington challenged himself and his technique by painting primarily nocturnes, depicting subjects lit only by firelight or the moon. Wolves became good subjects for these night scenes, as they were imagined to stalk innocent prey in the dead of night. In *The Call for Help*, c. 1908 (Figure 19), two wolves stalk three terrified horses, who cower in fear, their bodies pressed closely to each other as they back up against a fence, with little hope of escape. The wolves are upright and alert, quite the opposite of the curved and fearful backs of the much larger horses. The wolves' backs are to the viewers, denying any opportunity for eye contact and perhaps any kind of mutual understanding. Beyond the fence, a fire or candlelight is visible in a cabin window, indicating the potential for human intervention to save the three defenseless horses.

Moonlight Wolf, from 1909 (Figure 20), turns the viewer into the wolf's prey. The grays and dark blues of the painting indicate a deep darkness, lit only by the moon and the many stars

depicted above – there is no human created light source anywhere nearby in the dark mountains which recede into the blackness of the background. The wolf appears to be frozen mid step, as if she just turned her head sharply at an alarming sound. Her glowing yellow eyes, which appear otherworldly, lock directly with the viewer, and the viewer gets the sense of being isolated in a wilderness, vulnerable to the attack of this fearsome predator. The wolf here is representative of the dangerous lone wolf in the wilderness, symbolizing the kind of threats that rugged Americans needed to overcome to settle the West. Despite his frequent picturing of wolves, Remington likely saw the lone wolf as one of the last of its kind, a species not long for this continent – as he understood the seriousness of the wolf eradication efforts raging at the beginning of the 20th century. For Remington and Shiras, and the mostly white men who consumed the images they created at the start of the 20th century, the wolf was clearly the enemy, deserving of elimination, whether they were believed to prey on deer or cattle or even humans.[90]

While Shiras does advocate the large-scale slaughter of wolves, his chosen method of a steel trap was perhaps more responsible than poisoning, if not any more humane. Most traps by the turn of the century were Newhouse #14's, newly remodeled with sharp teeth, which made it more difficult for the wolf to tear loose.[91] The trap was usually attached to a six-foot steel chain with a drag hook – making the photographed wolf's 20-yard journey once trapped even more of a herculean effort. Even while men like Shiras were interested in camera hunting because of the way it maintained the challenges of hunting, and upheld their high standards of sport hunting, trapping wolves was not a sporting business. The wolf was seen as a creature lacking the nobility deserving of a sportsman's consideration. Traps were buried in shallow holes, and concealed

[90] It is important to note here that wolf attacks on humans are so rare as to be basically statistically nonexistent. Dan Flores cites the fact that throughout the entire 20th century there were only three recorded wolf attacks on humans worldwide. Flores credits the fact that adult wolves teach pups how to hunt and humans are just simply not a prey template that is passed on to the young. *American Serengeti*, 143.
[91] Lopez, 190.

with earth, and then often baited with rotting meat to lure a wolf in. Wolves, like the one pictured (Figure 7), would often suffer in traps for hours, if not days, to eventually be shot at close range.

While today, we would consider the action of trapping to be "hunting," Shiras likely would not have. The wolf was not a game animal, the action was not sporting or challenging, and as has been discussed previously, there was no chase to fit the standards of the Strenuous Life. In some respects, it is almost as if Shiras expected his viewers to read the wolf photographed in Figure 7, in a trap, but still alive, as already dead. Not only are all the other wolves in his book pictured as hanging carcasses or taxidermy forms (Figures 8-10), but contemporary viewers would understand immediately that this wolf was a creature deserving of slaughter, and slaughter without the principled display as a hunting trophy, in part because of the familiarity of wolf images like Remington's.

Trophy images from the period almost always included the hunter alongside his prize, a genre of photography which is still practiced today (think of the dentist, Walter Palmer, posed, smiling, behind Cecil the lion). Late 19th and early 20th century trophy hunting images frequently portray the hunter standing next to the hanging carcass of his quarry, posed for easy size comparison. Other examples show the hunter's horse in place of the hunter, or display the rifle alongside the killed animal, to present the method and technology used, as well as the multitude of outdoors skills possessed by the hunter. Through this imagery, viewers can even imagine the taxidermy trophy each animal would become. Trophy hunting photography also directly connects the image of the individual hunter, even if depicted by their rifle or horse, to the bagged game. But Shiras' wolf is not afforded display as trophy, instead she is displayed as a bounty, undeserving of the hunter's respect.

Most photographs of wolves from this period represent the animals as bounties. One method, which Shiras employed, was to display the hanging carcass of the animal, sometimes alongside the hunter (see Figure 8). This would demonstrate the impressive size of the wolf, and despite the fact that it would be photographed hanging by its hind legs, I would argue that there was likely an implied visual connection between the dead wolf and a lynched body – thus displaying the slain wolf as a criminal or perhaps even more insidiously, connecting the wolf body to that of a person of color. Another manner wolf bounty images used was to show a mass amount of bodies or hides, either in piles, hanging en masse, or lined up in rows on the ground. Shiras published an image like this as well (Figure 9). Because they are bounty kills, the killer of these four wolves, does not garner mention – instead, Shiras' caption criminalizes the animals: "Next to man, they are the most destructive foe of white-tailed deer in the upper lake region."[92]

Keystone Species

Unfortunately for wolves, and for the ecosystems they once inhabited – there is really no force as destructive as humans on any environment. Wolves often serve as apex predators in the ecosystems in which they live. As ecologist Robert Paine demonstrated in his now famous 1966 experiments with Pisaster starfish in Washington State,[93] predators are absolutely essential to a healthy ecosystem. As part of an exploration to answer questions about why animals don't eat all of the food available to them, Paine found flourishing tide pools in Mukkaw Bay on the lands of the Makah Nation and decided to pry out all of the large *Pisaster ochraceus* starfish, a predator of the tidal pools, and hurl them into the bay. These studies were part of a new interest in studying predators in an attempt to discern what ecological mechanisms were in place to balance

[92] Shiras, *Hunting Wild Life*, 266.
[93] Robert T. Paine, "Food web complexity and species diversity," *American Naturalist* 100, (1966): 65-75.

and control species populations. Before Paine started throwing starfish into the sea, ecologists generally believed that populations were controlled by the amount of food available for them. Thinking of species as stacked in a food chain, the understanding was that populations were controlled from the bottom up. The hypothesis that Paine was testing was a radical shift in ecology: that predator pressure on an ecosystem kept the population of prey species in check. Paine discovered that as he removed starfish from the tidal pool ecosystem, within three months acorn barnacles, a primary food source of Pisaster starfish, took over 60-80% of the available space. About a year later, the acorn barnacles were crowded out by the smaller goose barnacles and mussels. Even more shocking, four species of algae and two limpet and two chiton species all but disappeared from Paine's research plot. Overall, upon removal of the starfish, the tidal pool biodiversity was reduced from 15 species to 8.[94] Paine's results were conclusive, one predator species could control not only the populations of species it ate, but those it did not eat as well.

Later experiments confirmed Paine's results. Well known among them is the discovery that sea otters help control sea urchin populations, which in turn allows kelp to flourish. Areas where otters have been hunted to low levels also have what are known as urchin barrens, kelp free zones with very little biodiversity. Paine coined the term keystone species to describe species like sea otters and Pisaster starfish, that exert this cascading effect on the populations of animals in trophic levels below them. Keystone species are very often also apex predators, the predators at the highest trophic level, or the very top of the energy pyramid in an ecosystem. Paine termed the large-scale effects that either removal or reintroduction of a keystone species

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[94] Sean B. Carroll, "The Ecologist Who Threw Starfish," *Nautilus*, March 10, 2016, http://nautil.us/issue/34/adaptation/the-ecologist-who-threw-starfish

has on an ecosystem: trophic cascades. Molecular biologist and geneticist Sean B. Carroll describes a trophic cascade thus:

> Indeed, trophic cascades have been discovered across the globe, where keystone predators such as wolves, lions, sharks, coyotes, starfish, and spiders shape communities. And because of their newly appreciated regulatory roles, the loss of large predators over the past century has Estes, Paine, and many other biologists deeply concerned.
>
> Today, of course, one predator has more influence than any other. We have created the extraordinary ecological situation where we are the top predator and the top consumer in all habitats. "Humans are certainly the overdominant keystones and will be the ultimate losers if the rules are not understood and global ecosystems continue to deteriorate," Paine says. The only species that can regulate us is us.[95]

Without an understanding of the concept of a keystone species, Shiras and other conservationists who wanted to save deer were correct in their assumption that the removal of wolves would have direct impacts on deer. The trophic cascades caused by the intentional removal of wolves has been well documented. For example, reintroduced wolves in Yellowstone National Park have had positive impacts on many other species. Wolves not only control elk populations, which leads to a reduction in overgrazing, but also, the threat of predation changes elk grazing habits, shifting how and where elk graze, which results in a flourishing of plant biodiversity. This has led to a statistical increase in plant populations, such as an increased aspen overstory growth, as elk are no longer eating all the aspen shoots, giving the plants time to grow to tree height. This also leads to enriched habitats that support increased biodiversity in the park, including more insects, birds, and small mammals.[96] In a similar manner, wolf predation on moose in Isle Royale National Park produced an increase in balsam fir growth.[97] While human hunting of ungulates can reproduce some of the effects wolf predation does, hunting has never

[95] Carroll.
[96] William J. Ripple & Eric J. Larsen, "Historic aspen recruitment, elk, and wolves in northern Yellowstone National Park, USA," *Biological Conservation* 95, issue 3 (October 2000): 361-370.
[97] McLaren, B.E. & Peterson, R.O. (1994) Wolves, moose, and tree rings on Isle Royale. Science, 266, 1555–1558.

been proven to change the grazing patterns of ungulates in this way.[98] Wolves and wolf hunting patterns also play a huge role in the population of scavenger species such as bald eagles, golden eagles, ravens, coyotes, grizzly bears, black bears, and magpies. Carcasses left behind after a wolf kill are a primary food source for these scavengers. The primary causes of death for large ungulates are often natural, including disease and starvation, with more deaths occurring during long winters. As winters shorten and are statistically warmer, the seasonal survival rate of ungulates increases. Fewer death means a smaller production of carrion to feed eagles, bears, and other scavengers. In this sense, a healthy wolf population can mean more generation of prey carcasses and thus protection against an often-unnoticed impact of climate change and an increase of the survival chances of other at-risk species like golden eagles and grizzlies.[99]

Early 20th-century conservationists could not have predicted the science that would demonstrate the importance of wolf populations on ecosystems. But today, even with the data we have about wolves' importance for biodiversity, habitat health, and their potential to offset some of the ill effects of climate change, wolves are still hunted and largely hated in the United States. This is due to many factors, including the challenge their intelligence presents to hunters, their low numbers which "appeal to the human desire for the rare and elusive," and that they are still competitors for game hunters and at times do kill livestock.[100] While these all add to what biologists and ecologists term wolf persecution by humans, American cultural understanding of wolves and wolf conservation has primarily been formed by late 19th- and early 20th-century conceptions shaped by the writings and material culture production of men like George Shiras.

[98] Andres Ordiz, Richard Bischof, and Jon E. Swenson, "Saving large carnivores, but losing the apex predator?" *Biological Conservation*, (September 2013): 131.
[99] Christopher C. Wilmers and Wayne M. Getz, "Gray Wolves as Climate Change Buffers in Yellowstone, *PLOS Biology*, March 15, 2005, https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0030092
[100] Ordiz et al, 130.

Wildlife conservation in the United States is a direct product of trophy and sport hunting. To this day, trophy hunting, through permit revenue, is a primary means to fund conservation efforts. Though it may seem counterintuitive, allowing limited seasons on even threatened or otherwise protected species can encourage political support, especially in red states with large swaths of public land, larger populations of livestock, and more general disdain for predator species like wolves. Hunting also reduces the perceived risk to humans and livestock, whether or not there is any actual established threat from wolves. While this kind of financial and political support is essential for wolf conservation, hunting is possibly more disruptive than some biologists allow. Killing individual animals has immense impact on wolf social structure, affecting population dynamics, and leading to unsuspected wolf mortality later on. Losing breeding individuals exerts a destructive force on wolf packs (in up to 85% of cases), which is especially detrimental to wolves' impact as apex predators, because it is the pack as a whole and not the individual wolf that exerts the pressure as an apex predator. Lowering wolf populations can also leave gaps in ecosystems that are filled by other carnivores, especially coyotes, potentially leading to denser populations of competitor species which can actually produce an increase of livestock death since there are more animals to compete for the same resources, often forcing wolves or even coyotes to prey on easier to catch livestock.[101] Immensely intelligent, large carnivores like wolves, bears, and lions often adjust their behavior in response to increased human hunting to avoid potentially lethal encounters, especially during hunting seasons, which can again led to population densities in particular areas and increased pressures on the ecosystems there (including increased predation on livestock), as well as potential evolutionary costs that humans are not yet aware of. When apex predators adapt to being hunted by humans, their behavior begins to resemble prey under stress, lessening the positive impact they have on

[101] Ibid, 130.

their ecosystems as apex predators. Prey species also adapt to these changes, as species such as moose and elk have been recorded as using human infrastructure as a shield against predation by wolves and bears, thus increasing human conflict with ungulate species as well.[102] Their ecological importance and extreme intelligence can and should have an impact on the way we look at wolves. Today, our thinking about wolves needs to consider the troubled past of wolf eradication and more contemporary wolf persecution. The acknowledgment of animal sentience all but requires a way of looking at wolves that develops as an ethical viewership.

An Ethical Viewership

The photograph of the trapped wolf, illustrative of the optical unconscious of turn of the century hunting photography, images aspects of the Strenuous Life and reveals conservation efforts that men like Shiras were uncomfortable confronting. The wolf, pictured in the moments just before her death, is an enduring reminder of the animal death and subsequent ecological destruction, that seemed necessary as part of the efforts to save another species, the deer. The death of this animal was unsporting and easy, and her stare forced a confrontation as she looks the hunter directly in the eye. This is a violent and disturbing image. Yet the process of photographing the timber wolf creates an otherwise unattainable sympathy and closeness with the creature. And sympathy bears with it an ethical responsibility.

If we can extend Azoulay's civil contract of photography to transgress species boundaries, then the image of the timber wolf can be viewed as a connection between the photographer and the subject as well as between the subject and the viewer.[103] Understanding the

[102] Ibid, 130.
[103] While Azoulay herself does not write about non-human animals, in a 2018 conversation with her, I asked about the possibility of extending an ethical viewership, collaborative photography, and perhaps even a citizenship, to looking at animals. She responded that she has really never considered it, her work is so often tied intimately to

photograph as an ongoing event, the wolf gazes directly through the camera to the viewer, her terror palpable in the extreme tension of her extended front leg, making a taut line, which frames her face in the triangle made with the branch over her head. That branch intersects the straight line of her back, which ends at her haunches, dug into the dirt, giving a sense of both her struggle and her surrender.

Keeping in mind that for Azoulay, a photograph is always a collaborative act, I want to return focus to the wolf's eyes, and argue that on some level the wolf knowingly seeks to connect with the viewer. Of this participation, Azoulay writes: "the photographed subjects of numerous photographs participate actively in the photographic act and view both this act and the photographer facing them as a framework that offers an alternative – weak though it may be – to the institutional structures that have abandoned and injured them…"[104] While Azoulay argues for photography's ability to facilitate participation in citizenship, I want to suggest that both the trapped wolf and the doe argue for recognition.

For Azoulay, photography and citizenship alike are gained through recognition.[105] For non-human animals, and for wolves especially, particularly wolves of the 19th and 20th centuries, mutual recognition from their human others was nearly impossible. By contrast, Shiras' captions of his deer photographs, even when the animals are not looking at the camera and are unaware they have even been captured on film, do in some sense recognize the animal. His captions anthropomorphize: he refers to a doe as "she," references them as mothers, and pairs of bucks and does as families. Wolves, however, are "it", "marauders, and cruel. In his written text, he attempts to deny the recognition so readily offered to deer. But, the photograph of the trapped

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the oppression of humans by other humans – but that it seemed like a practical extension, and one I could rightly make.

[104] Azoulay, 18.

[105] Ibid, 25.

wolf, and her last actions before her death, function within Azoulay's understanding of photography as a collaborative process that is ongoing – one which requires the consent of all parties concerned, including the photographer (Shiras), the subject (wolf), the camera, and now the viewer. For we too are complicit in this story. Viewer involvement, through an ethical spectatorship, can change the distribution of that mutual recognition. This is perhaps why Shiras had so few images of wolves, particularly live ones – because he feared that direct confrontation and the responsibility it placed on him for the wanton slaughter of wolves.

Shiras' wolf is making a plea with viewers, to be recognized as worthy of more than the fate she received. This plea is part of what Azoulay would call the civil contract of photography, but since I am using it to make a claim for multispecies recognition instead of citizenship, we can refer to it simply as a contract of photography. According to Azoulay, the contract of photography "binds together photographers, photographed persons, and spectators. Each of them fulfills her role – persons are being taken in photos, photographers take pictures, spectators look, and all of them know what is expected of them and what to expect from the others."[106] This begs the question then, can a wolf participate in this contract of photography if she has no concept of what photography is?

In many respects, I believe it does not matter if the wolf knew exactly that her image was being captured and reproduced for humans of the future to see. She likely knew there was a threatening human in front of her, he had a weird black box, and a gun, and she was in pain and scared. It's possible that those combinations of emotions and physical sensations created the look of terror, and that she looks directly at the camera because she was looking directly at Shiras, and in that sense, she was a collaborator of the image as much or more as any human whose likeness is captured without their knowledge. I also challenge if it matters at all to ask the question about

[106] Ibid, 26.

her direct participation and consent to be photographed. Rather, I would emphasize the power and importance of our ability to understand this as a collaborative image. Should we interrogate a dead wolf's knowledge of the photographic practice or our ability, as 21st century humans, to consider our complicity in the destruction of American eco-systems and consider new possibilities for the ways we think about the natural world? Is it possible to look with this wolf in order to find new pathways to remove wolf slaughter from the optical unconscious and instead, consciously consider contemporary wolves as wolves, instead of symbols heavy with meanings from the past century?

In his discussion of the wolf wars, Barry Lopez states: "We killed hundreds of thousands of wolves. Sometimes with cause, sometimes with none. In the end, I think we are going to have to go back and look at the stories we made up when we had no reason to kill, and find some way to look the animal in the face again." In a sense, Lopez is asking readers to bring the history of wolf eradication from the cultural unconscious. Though it is a small step for wolf policy, changing the way we look at wolves, removing the attempts to hide their planned slaughter in the optical unconscious is still an important one, as it can help change the way see and therefore think about wolves. The timber wolf in Shiras' photograph is asking us the same as Lopez does, to look her in the face in perpetuity. Maybe this will be what Shiras called his "contribution toward a better acquaintanceship with our fellows of the wild."[107]

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[107] Shiras, xix.

CHAPTER 2: *BISON BISON*: NATURALIZING BISON EXTINCTION IN *THE DAYS OF BISON MILLIONS* BY CARL RUNGIUS

Introduction

According to his biographer, Carl Rungius wanted to paint America's big game "as it exists," and "to achieve this, the artist went to the source of truth – nature – living and working in the wilderness, among the animals."[108] To depict wildlife well, Rungius believed, an artist had to know a species intimately. And the best way to know an animal was to hunt it. Rungius' archive and the many articles and books written about his paintings during his lifetime are rich with stories about his hunting prowess. Rungius was a member of some of the period's most influential hunting clubs, such as the Boone and Crocket Club, he was an honorary Boy Scout, and, like George Shiras, a vocal supporter of the Strenuous Life, particularly for the way in which it associated American style democracy with American big game hunting. Game hunting in Rungius' native Germany was primarily the purview of the aristocracy and he saw hunting on American public land as holding a democratizing power, despite its functional prejudices of class and race in practice.[109] Rungius' belief in the democratizing power of the hunt may seem contradictory to his suspicion of urbanization and modernization, trends he saw as threatening to his outdoor interests. Participation in big game hunts and in the Strenuous Life allowed him to reenact his vision of the 'good old days.' Averse to social change and what he understood as negative effects of progress, he wrote to his mother in 1922, "The direction in which the world is

[108] William Schaldach, *Carl Rungius: Big Game Hunter with Brush and Rifle,* (Columbia, SC: The Sporting Heritage Collection, 1993), 11.

[109] The perception of big game hunting as democratic is discussed in more detail in Chapter 1 – but, despite the idea that hunting on public land was open to any American, both game laws and gun legislation prevented minority populations from accessing the sport. Popular opinion, presented through ideas like Roosevelt's Strenuous Life, also set up subsistence hunting and techniques used by market hunters as 'unsporting,' creating a perception of trophy hunting that elevated the practice (reserved only for the wealthy elite) as more ethical.

progressing I do not like! I belong to the old school and hope everything will remain as it is, at least as long as I am here."[110]

In many respects, Rungius' entire oeuvre is illustrative of the conservation aesthetic and the dialectal tension it contains. His paintings in general celebrate North American wildlife, and through their dissemination in popular print sources, often connected with articles that called for conservation or in advertisements for the railroads and westward travel, sought to bring the general public into closer contact with wilderness areas and wild animals. Yet, the primary value that Rungius understood wildlife to hold was as the object of the chase. Like many of his contemporaries, including close friends such as William Temple Hornaday, Frederic Remington, Teddy Roosevelt, and George Shiras, Rungius lamented the dwindling populations of big game and the detrimental impact westward expansion had on areas previously viewed as pristine wilderness. Rungius saw the value of wildlife and wilderness for its ability to host continued participation in frontier mythology.

Yet concern over decreasing habitat did not necessarily slow Rungius' appetite for hunting. Hunting, in fact, fueled his painting; Rungius' technique was almost entirely dependent on observations of animal bodies that he made while hunting in remote locations. After killing an animal, Rungius and his companions would often dissect it in the field, decapitating the head in order to preserve it so it could be made into a trophy later. But the decapitation was also important for Rungius' painting; it allowed him to tie an animal head to an armature made from sticks, from which he could then sketch. After a hunt, Rungius would tediously sketch and photograph the slain animal, usually just the head, propped up so that he could place it in a wilderness background (Figure 21). At times, when the animal size allowed, Rungius would leave the whole body intact, and tie it up in lifelike poses to create these sketches in place

[110] Carl Rungius, letter to his mother, September 27, 1922. Glenbow Museum Archives.

(Figure 22). With some larger animals, which were too difficult to prop up, he draped the skin over a branch or tree to sketch it in its entirety, as can be shown in his photograph of bear skins (Figure 23). It is likely that he killed at least one representative animal for almost every species he ever painted (though for elk, moose, deer, and bear the numbers he hunted are especially high).

There is one important exception. In 1917, as part of a commission from William Temple Hornaday to paint endangered animals for the New York Zoological Society, Carl Rungius painted the American bison (*Bison bison*). Searching through his writings and archival records, it does not appear that Rungius ever hunted bison. It is possible that by the time he emigrated to the United States in 1896 bison numbers were so low as to make them practically extinct in the wild, and therefore impossible to hunt. In keeping with this probability, his painting for the commission, *Days of Bison Millions (Looking West Toward the Wyoming Range)* (Figure 24), does not just lament the shrinking numbers of bison, it mourns the loss of an entire species. Looking at Rungius' *Days of Bison Millions* through the conservation aesthetic, I argue that the painting makes claims for the necessity of bison conservation while simultaneously denying the human, capitalist, and settler colonial causes of bison extermination. Rungius' early 20th-century naturalization of bison extinction, moreover, has produced the current vision of bison in the 21st-century imaginary as romanticized and mythologized. Bison today are viewed primarily as a symbol of the American West, and rarely, if ever, viewed as the semi to fully domesticated animals they now are.

By comparing this image to Charles Knight's murals and illustrations of prehistoric mammals (see Figure 25 as an example), I argue that Rungius presented bison eradication as a natural event. Charles Knight may no longer be well-known, but his vision of prehistory is still

ever present in our modern constructions of the past. In the 1920s and 30s he painted murals for the American Museum of Natural History (AMNH), the Field Museum in Chicago, and the Los Angeles Natural History Museum; his images also appear in countless articles and journals. Knight's vision of prehistoric life, including dinosaurs and other extinct creatures has become so recognizable and familiar, in fact, that even his mistakes are commonly replicated.

When compared to Knight's prehistoric mammals, the way in which Rungius' *Days of Bison Millions* functions within the conservation aesthetic becomes clear: on the one hand, the painting seeks sympathy for the plight of America's largest land mammal and makes a claim for the necessity of wilderness conservation, but on the other hand, it naturalizes the eradication of the animal, denying the settler colonial causes of the bison's demise. As Knight brings prehistoric animals to life through his murals and illustrations, Rungius cements bison as an animal of the past. Together, the artists position extinctions from the Pleistocene to the Anthropocene as natural and predetermined events. In this way, both paintings obscure not only the human causes of extinction, but also the direct pressures of settler colonialism that led to the destruction of bison herds in the 19th century.

After a brief biographical background of the artists, this chapter begins with the natural history of bison and bison eradication as a way to set the stage for the current condition of the species, and to understand the environmental conditions that Rungius and Hornaday were considering when *Days of Bison Millions* was painted. In order to understand the settler colonial implications of bison eradication and to explain the problem with naturalizing bison eradication, I highlight the links made between bison extermination to tropes of the Vanishing Indian. Additionally, through a comparison to Knight's paintings, bison eradication is critically connected to the cultural understanding of the late Pleistocene megafaunal extinctions, which

helps show how prehistoric megafaunal extinction has been used to naturalize both bison extinction and a social Darwinist logic that places Indians as inferior to Euro-Americans. The chapter ends with my own experience and observations of a re-introduced bison herd and with the possibilities of an ethical viewership that challenges the vision of bison presented by Rungius. This way of looking asks viewers to meet bison where they are instead of where they are imagined to be.

Background and Biographies

Carl Rungius was born in 1869 in a small town outside of Berlin, Germany. His father was a Lutheran minister who expected his son to follow in his footsteps and initially opposed him becoming an artist. But even as a young boy, Rungius was fascinated with the natural world, collecting butterflies, sketching, and learning taxidermy. After obligatory military service, Rungius studied at the Berlin Art Academy, where legend has it, he spent more time sketching animals in the Berlin Zoo than he did in class. During these early years, Rungius was very focused on learning animal anatomy and would visit glue factories to study horse corpses and even killed neighborhood cats in order to dissect them to draw from the carcasses (Figure 26).

In 1894, he was invited by his uncle Clemens Fulda, who was living in New York, to come to the United States to hunt moose in Maine. Their first hunt was unsuccessful so Rungius stayed longer than planned to be able to try again the next season. During this time, Rungius also made a hunting trip to Wyoming, which cemented his love of the American West and the big game it harbored. By 1896 he had made the decision to emigrate to the United States permanently, a decision in part prompted by his growing affection for his cousin Louise Fulda, a Brooklyn schoolteacher, whom he later married. Throughout his life, Rungius, sometimes

accompanied by Louise, made many hunting trips to the West, finally settling on the national parks of Alberta, Canada as his favored hunting location. He eventually built a summer home and studio in Banff.

Rungius befriended William Temple Hornaday, the famed conservationist, director of the New York Zoological Society (Bronx Zoo), and former taxidermist for the Smithsonian Museum of Natural History. Like other early conservationists, Hornaday was conflicted about big game hunting, but believed in the power of bringing the general public, especially on the east coast, into close contact with western game species in order to garner awe and sympathy for their conservation. This was done not only through live specimens at the Bronx Zoo, but also hunting trophies, taxidermy, and artwork. In 1900, Hornaday created the National Collection of Heads and Horns at the zoo, donating 131 of his own mounts to start the collection, which included impressive trophies collected by big game hunters from Hornaday's social and scientific circles. Among those individuals whose trophy heads ended up in Collection of Heads and Horns was Madison Grant, a polarizing figure who wrote some of the earliest and most effective conservation law as well eugenicist texts (as discussed in the introduction). It should be said that Hornaday is a polarizing figure as well, largely due to his decision (encouraged by Grant) to display a human, a Mbuti man named Ota Benga, in the Primate House at the Bronx Zoo. At the urging of the naturalist, writer, and founder of the Boy Scouts, Ernest Thompson Seton, Hornaday gave artists special access to the collections (including the live animals) at the Bronx Zoo, and Rungius was one of the first to take advantage of this. Along with Daniel Beard and El Harvey, Rungius designed a drawing studio for the zoo that included special cages that would temporarily house large predators to give artists especially close access to the animals. In

addition to the paintings of North American big game commissioned by Hornaday for the zoo, Rungius also painted the background for the lion enclosure.[111]

In 1912, Rungius was asked by Hornaday, to paint the large game and predators of North America to be displayed at the zoo in "The Gallery of Wild Animals." Hornaday, who wrote some of the most important conservationist texts of early 20th century, including *The Extermination of the American Bison*, was especially interested in species with shrinking populations, and he commissioned paintings from Runguis that included images not only of bison, but also images of white-tailed deer, grizzly bears, mountain goats, polar bears, timber wolves, mountain lions, muskoxen, elk, fur seals, pronghorn, mule deer, moose, and caribou—all animals with shrinking populations. From records such as hunting permits and photographs, we know Rungius prepared for this work, with the exception of the bison and the polar bear, by hunting each of the species.[112] Rungius spent about one year on each of his commissioned paintings until 1933.[113] Each of Rungius' 20 paintings were relatively large, about five feet by six feet, and designed to function like a mural when installed at the zoo. Of the impetus for the commission, W. Reid Blair, a veterinarian who became the director of the zoo in 1926, further explained the paintings' function: "The primary object of the Society's collection of paintings is that the subjects must be portrayed with scientific, anatomical and zoological exactitude even if it is necessary to sacrifice qualities of purely aesthetic values."[114]

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[111] Jesse Donahue and Erik Trump, *Political Animals: Public Art in American Zoos and Aquariums*, (Lanham, MD: Lexington Books, 2007): 29.
[112] Rungius archive contains written hunting stories or photographs indicating he had successfully hunted every other species represented on that list except the polar bear and muskox. However, his archives, at the Glenbow Museum, do contain a 1904 hunting permit for muskox in the Yukon Territory
[113] Karen Wonders, "Big Game Hunting and the Birth of Wildlife Art," *Carl Rungius: Artist & Sportsmen,* companion to the Exhibit Organized by Glenbow Museum, 2000, Calgary, Canada, (Toronto: Warwick Publishing: 2000), 31.
[114] Quoted in: *Carl Rungius: Artist & Sportsmen,* companion to the Exhibit Organized by Glenbow Museum, 2000, Calgary, Canada, Toronto: Warwick Publishing: 2000: 87.

Charles R Knight was born in 1874 and grew up fascinated by the natural world he felt was absent in his native Brooklyn. Knight's favorite subjects to paint or draw as a student were animals, and he spent long hours sketching at the Bronx Zoo as a child and young man; he was one of the artists who trained at the Bronx Zoo after Hornaday granted access to artists, and he completed sculptures for the north side of the zoo's Elephant House in 1908.[115] Knight understood his own desire to depict animals as part of a primeval longing, saying: "there was no special art consciousness about these attempts, merely a primitive urge to depict what I saw before me, much no doubt in the manner of the ancient cave-man, who loved to engrave and color upon the walls of some remote cavern the shapes, tints, and actions of the various wild beasts that existed in his immediate neighborhood."[116] For Knight, then, the simple depiction of animals linked him to a primordial and primitive past.[117]

In 1896, Knight met Henry Fairfield Osborn, who at the time was a professor of paleontology at Columbia.[118] Osborn would, however, soon become the president of AMNH and mentor Knight in a lifelong career of recreating prehistoric and extinct animals through paint. Knight considered himself an artist, but was also a freelance employee of AMNH who worked closely with the top scientists employed there. Osborn's description of Knight's murals in the Hall of the Age of Man reveals how Knight's work was placed within a scientific discourse. About Knight's painting, Osborn wrote, for instance, "these animals are shown not only as

[115] Donahue and Trump, 35.

[116] Quoted in Richard Milner. *Charles R. Knight: The Artist who Saw Through Time*. (New York: Abrams, 2012), 9.

[117] Knight was interested in art, particularly drawing from a very young age. After studying at SVA and the Metropolitan Museum of Art School, Knight began work at only 16 years old in New York as an animal illustrator for major magazines including Scrinber's and Century Magazine. He also worked for J & R Lamb Studio, a stained glass studio, where he specialized, of course, in depictions of animals, often biblical scenes for churches or cathedrals. Milner, 12.

[118] Knight was introduced to Osborn through his father George Wakefield Knight, an English transplant to New York and secretary to banker J.P. Morgan, who was also Osborn's uncle. Morgan arranged many private visits for the Knights to AMNH, including after hours and behind the scenes, making Knight familiar with the workings of the institution from a very young age. Milner, 11-12.

mounted skeletons but in a series of large mural paintings portraying them as they appeared in the flesh amid their natural surroundings."[119] Similarly, contemporary scholarship places Knight firmly within a discourse of discovery, often highlighting the fact that he was the first artist to establish a clear picture of the primeval past in the popular imaginary. For example, Richard Milner writes: "He seemed to peer through the mists of time and return with snapshots of amazing creatures that no human eyes had ever seen."[120]

Unsurprisingly, Knight's work, due to its prominence in natural history collections such as the Field Museum and AMNH, is largely absent from art historical discourse. Even Osborn most often referred to Knight's work as restorations, establishing the paintings as natural historical artifacts instead of fine art objects. But Osborn did understand Knight's work as part of the long-term legacy of AMNH, stating in 1934, "Charles R. Knight is the greatest genius in the line of prehistoric restoration that the science of paleontology has ever known. His work in the American Museum will endure for all time."[121] Osborn's words have so far proved prophetic, as Knight's works still hang behind articulated fossils in both AMNH and the Field Museum, immortalizing both his conceptions of the past and American exceptionalism at the turn of the 20th century. Knight's work, alongside other presentations of American prehistory, establish North America as the at one time home to the world's largest and most ferocious animals as well as the home to the best scientific minds to study them.

Even before Knight was born, there was a vested interest in representing the specific Americanness of the pre-historical past. Modeled on the Dinosaur Park from the 1850s at the London Crystal Palace, that featured life size models of dinosaurs discovered in Europe, New

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[119] Henry Fairfield Osborn. *The Hall of the Age of Man in the American Museum*. Guide Leaflet Series No. 52 (May 1921) Published in *American Museum of Natural History Guide Leaflets 1917-1921*. Accessed online: https://archive.org/stream/guideleaflet4552amer#page/n372/mode/1up, 3.

[120] Milner, 8.

[121] Quoted in Milner, 9.

York City planned to open the Paleozoic Museum in Central Park, which was meant to feature models of dinosaurs and other extinct animals found in the United States and deemed as more ferocious than those discovered in Europe (Figure 27).[122] Due to the corrupt New York City government of the 1870's, however, the Central Park museum was never completed, and the models created for display were destroyed.[123]

Around this same time, paleontologists started to discover dinosaur and other fossil skeletons in the American west, extending Manifest Destiny not just further westward, but deeper into the earth and further back in time. So intense was the search for dinosaur bones that the years 1877 to 1892 were known as the "Bone Wars", where rival paleontologists Edward Drinker Cope and Othniel Marsh battled for dig sites in the West each seeking to locate as many fossils as possible.[124] As more and more fossils were discovered, in the West as well as the Southwest, the primordial past became the site of colonial discovery. As the period of westward expansion was coming to a close, fossil hunting became a new site of exploration. American identity, particularly the rugged individualism preferred by Roosevelt, relied heavily on the discourse of discovery and the ideology of conquering wild lands. Fossil hunting set up prehistory as a new space of discovery. That is, the popularity of fossil discoveries provided new frontiers to conquer during the same period that witnessed the proverbial closing of the Western frontier. As cultural historian Paul Semonin states: "In many ways, the savagery of prehistoric

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[122] This discourse is linked to earlier Jeffersonian national tropes, which considered the mastodon or mammoth, typified through displays like Charles Wilson Peale's mammoth, as both possibly still alive west of the Missouri and representative of the American wilderness in need of civilizing. See Paul Semonin, *American Monster: How the Nation's First Prehistoric Creature Became a Symbol of National Identity* (New York: New York University Press, 2000) and Laura Rigal, "Peale's Mammoth" in David Miller, ed. *American Iconology* (New Haven: Yale University Press, 1993: 18-38).
[123] Paul Semonin. "Empire and Extinction: The Dinosaur as a Metaphor for Dominance in Prehistoric Nature," *Leonardo* 30, no. 3 (1997): 171-182, 174.
[124] Milner, 9.

nature today may be replacing the wild west as the symbol of the violent nature in American culture."[125]

Artists like Knight also frequently represented human ancestors, visually connecting Paleo-Indians to extinct species like prehistoric bison and woolly mammoths. This imagery helped fuel the period's social Darwinist discourse, which understood racial categories of people as separate species. By believing that American Indians were scientifically inferior people, more closely related to the prehistoric ancestors of humans than Euro-Americans, the dominant settler colonial culture could more readily accept the genocidal logic of Indian removal, forced assimilation, and erasure. The fascination with prehistoric species and extinction helped Euro-Americans manage the anthropogenic extinctions they were complicit in, like of bison or even the Passenger Pigeon and Carolina Parakeet, and understand them as natural events, despite human causes. Relatedly, this model of understanding extinction allowed artists and scientists such as Knight and Osborn to present American Indians not only as biologically inferior, but also as one-time colonizers of the North American landscape who acted as a large-scale destructive force on Pleistocene megafauna. This thinking positioned the colonized as former colonizers, seeing the pathways of settler colonialism as coming full circle, and therefore more palatable. In this manner, and as representative of the dialectical tensions of the conservation aesthetic, Rungius naturalizes bison eradication by making visual and cultural links with the megafaunal extinctions of the Pleistocene while at the same lamenting mass scale species loss as unnatural and at the hands of contemporary American society.

[125] Semonin, *American Monster*, 409.

Bison bison: a Natural and Unnatural History

Until the 18th century, bison ranged across the majority of North America, in at least 40 of the 48 contiguous states and across most of Canada, as far east as Western New York, through the Carolinas, and into Florida. Today, wild bison are gone from 99% of their original range.[126] While the exact numbers are debated by wildlife biologists and environmental historians, many cite the total number of bison until the 19th century as high as 30 million. By the end of that century, there were fewer than 200. The last bison were seen in Georgia around 1800, in Pennsylvania in 1801, in Louisiana in 1802, in Illinois and Ohio in 1808, in Tennessee in 1823, in West Virginia in 1825, in Indiana in 1830, and in Wisconsin in 1832.[127] Before this, there were probably two to four million bison east of the Mississippi. The popularity of bison fur increased dramatically in the 1830s and eventually prompted the almost total destruction of the species. Bison, extremely well adapted for surviving the cold and arid winters on the Great Plains, have incredibly warm wool, making their fur, referred to as robes, very valuable and fashionable for coats and blankets. Additionally, bison tongue became a sought-after delicacy, meaning that many bison hunters would simply cut the tongue out of a slaughtered bison and leave the carcass to rot on the plains.

Bison populations naturally fluctuate due to cycles of drought and abundance, but even a species adapted to shifting with ecosystem changes could not recover from the mass scale hunting and habitat reduction of the 19th century. Bison herds range across great distances, requiring huge amounts of open space, which reduces pressure from territorial predators like wolves. But on the Great Plains some wolf packs would follow bison herds, not only to prey on the young, old, and sick bison, but also on the many small mammals flushed out by stomping

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[126] James A. Bailey, *American Plains Bison: Rewilding an Icon*, (Helena, MT: Sweetgrass Books, 2013): 37.
[127] Ibid, 23.

hooves. Migrating herds also provided great benefit to the prairie ecosystems they grazed. Unlike other ungulates, like deer, bison are not picky eaters, and will ingest all sorts of grasses and forbs, eating young woody plants, which prevents woodland from invading into the grasslands, particularly in wet seasons that foster an increase in tree growth. Moving in large herds, bison hooves dig up the soil as they travel, which acts similarly to plowing, stimulating plant growth, particularly after events like fire and drought. Bison stimulate plant growth in numerous other ways as well, such as by spreading seeds through their fur and feces and fertilizing the soil through urine and dung. Wallows, spots where bison roll in dust to remove parasites and insects, compact the soil, creating depressions that hold water, form micro-ecosystems in the grasslands, and irrigate prairie habitats. Wallows become especially important in maintaining these environments in periods of drought. Bison wool is also important for providing nesting material for birds and small mammals because it is water repellant and its strong smell masks the nesting animal's own, protecting young from predators.[128] In short, bison were an incredibly important, if not essential, element of the plains and prairie ecosystems. While most of the prairies have been turned to farmland throughout the United States, the grasslands that do exist have a limited number of the species that once flourished there, in part because of the absence of bison. Wildlife biologist James Bailey points to the failure of the national understanding of the ecological role of the bison when he writes:

> Our Endangered Species Act recognizes the threat of ecological extinction. A purpose of the Act is to conserve the ecosystems upon which threatened and endangered species depend. This recognizes the dependence of a species upon its ecosystem. But the Act does not clearly recognize the dependence of an ecosystem upon the species.[129]

[128] Ibid, 46.
[129] Ibid, 47.

In addition to their ecological role, or rather as a complement to it, bison also hold an extraordinary cultural value for many indigenous people of North America. For one thing, Bison were probably the most important protein source for Plains Indians. Not only could a few bison produce enough meat to feed several families, but dried meat, ground up with dried cherries and other fruits, would be made into pemmican, which provided an important protein source through winter months when game was scarce, especially for nomadic peoples. Nations such as the Blackfoot were so dependent on bison meat that in 1894, with the northern herds almost entirely depleted, at least one quarter of the Blackfoot population in the United States died of starvation.[130] Moreover, Bison robes provided warmth, while hides were used to create clothing, shelter, and as the support for artwork and community records. So integral are bison to many tribes, that peoples such as the Lakota, Ute, Crow, Cree, and Arapaho nations have creation stories explaining that bison predate humans, and in fact, that human life is brought into existence and sustained by the bison, who co-exist with humans as an independent but allied nation. For many American Indians, the bison-human relationship isn't just one of prey-hunter or human-animal, but of diplomacy between nations.[131]

Before settler expansion, it is estimated that approximately 200,000 bison were killed annually by indigenous hunters. For many Plains tribes, bison hunts were annual events, with many animals killed at one time through practices like buffalo jumps and penning. In both activities, the majority of animals in a herd would be directed, through the coordination of several people strategically placed along a set route and others driving the animals on horseback, or much earlier, on foot, to run over a cliff or into pens where they could be slaughtered at close

[130] Ken Zontek, *Buffalo Nation: American Indian Efforts to Restore the Bison*, (Lincoln: University of Nebraska Press, 2007): 20
[131] Ibid, 3.

range. Bison hunts not only provided important resources, but hunts created opportunities for community gatherings and ceremonial cycles.

Often, as was the case with wolves, bison eradication was linked to the removal of American Indians. By the 1830s, Great Lakes tribes were forcibly removed from their lands, coinciding with the eradication of bison from that region. For the dominant settler colonial society, eradication of the bison herds was a step in the genocidal process of Indian removal and erasure. In many tellings of the story of American expansion westward, the US military is held solely responsible for the extermination of the bison as part of a tactic of Indian extermination, an attempt to destroy a source of food and cultural value. Environmental historian Dan Flores points out that the story of bison extermination is much more complicated though. Bison were victims of the 19th-century Indian Wars, but also of an unregulated market for their hides and tongues, and of the competition for grazing land for cattle. Cattle passed diseases to bison, such as tuberculosis, anthrax, and brucellosis, further diminishing bison numbers. Additionally, a drought in the Great Plains in the 1840s reduced available forage for bison, putting natural pressure on a bison population already under increased pressure from hunting for robes and tongues. According to Flores, it seems unlikely that the US military had an official policy of bison eradication as part of Indian removal, but did see the impact of bison eradication on native populations as an unexpected benefit that made Indian communities more vulnerable.[132] Columbus Delano, Interior Secretary under Ulysses S. Grant, commented that, because of the detrimental impact on tribal cultures and foodways, he "would not seriously regret the total disappearance of the buffalo from our western prairies."[133]

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[132] Dan Flores, *American Serengeti: The Last Big Animals of the Great Plains,* (Lawrence: University of Kansas, 2017): 120-126.
[133] Quoted in Flores, 131.

Prior to their dwindling numbers, bison seemed so plentiful (there were tens of millions) that hunters often killed them for single products. For example, robe hunters only removed the skins from a bison carcass, leaving behind the rest of the body to decompose. Other hunters killed bison to remove only the tongue. Even more tragically, as the species became rarer, trophy hunters became interested in securing just bison heads, primarily because of that rarity. Throughout the 1830s and 40s, individual fur companies each shipped at least 100,000 robes a year, and as steamship and rail access increased to the interior west in the 1860s and 70s, these numbers dramatically increased. Hornaday estimated that in the years 1872-74 alone, 3,698,730 bison were killed. This number included native subsistence hunting, robe hunting, hunting for tongues, and at least 150,000 killed by US soldiers for meat and sport.[134] By the 1880s there were so few bison left that hunters turned to collecting the bones left behind by skinners, then bleached by the sun. Bones were ground down to be used in things like fertilizer and in the production of powdered sugar.

Robes were most valuable during winter months, particularly at the start of the season, when bison coats were longest and before the animals started shedding in the early spring. This limited window encouraged robe hunters to take as many animals as they could at one time in order to maximize profits from the finest robes. The cover of the December 12, 1874 *Harpers Weekly* displays a wood engraving of the robe hunt (Figure 28) with the caption, “Slaughtered for the Hide.” However, despite the violent connotations of the word ‘slaughter,’ the image suppresses all the gore and violence of the robe hunt. The bison’s visible eyelid is heavy, just barely open, making it appear as if he is falling asleep not dead, and the cleanliness of the hide and skinner make it appear as if the bison has simply slipped out of his skin, like one would a

[134] William Temple Hornaday, *The Extermination of the American Bison*, (Washington: Smithsonian Institution Press, 1889): 500-501.

jacket. The skinner holds the entire hide aloft, in his right hand, displaying the skin of the bison, and not the head or horns, as the most valuable trophy of the hunt. The whiteness of the underside of the hide, and the steep angle formed by the skinner's extended arms draw our eyes away from the bison carcass and back to the prized robe. The scale of the hunt, which was at its peak in the early 1870s, is barely referenced in the illustration, with just a few humps representing other bison kills. These bodies blend in with the ground they rest on, making them appear almost as natural features in the landscape and not victims of a mass scale slaughter. The image removes the violence of the hunt for an eastern audience who, though geographically distant from the slaughter, readily consumed its products, primarily the expensive bison robes.[135]

While Hornaday partially blamed the demise of the bison on native hunters, he also cited an unregulated and insatiable robe market, or as he said: "men's reckless greed, his wanton destructiveness,"[136] and "the total and utterly inexcusable absence of protective measures and agencies,"[137] as well as advancement in gun technology, particularly the Sharps breech-loading rifle. He cited as well "the phenomenal stupidity of the animals themselves," as another key factor responsible for the decimation of bison numbers.[138] Hornaday was correct in some respects, as the hunting technique used to kill bison undoubtedly led to their extirpation. The most popular and effective method of bison hunting was the still hunt. In this technique, single hunters would find a high spot upwind of a bison herd and pick off sometimes hundreds of bison at a time, one by one, with a sharpshooter rifle. The quicker breech-loading technology and better aim of the Sharps rifle, and what Hornaday describes as bison stupidity, is what made this

[135] Buffalo skinners had to work quickly on dead bison, as it was easiest to skin before rigor mortis set in. When skinning cows or young bulls, skinners would remove the entire hide, leaving the perfectly skinned carcass behind. Older bulls had particularly tough skin on their heads, so to save time and effort, buffalo skinners would remove bull's hides up to the head, leaving behind carcasses with heads intact. Hornaday, 442.
[136] Hornaday, 464.
[137] Ibid, 465.
[138] Ibid, 465.

method so effective. Similar to the response to jacklighting (briefly discussed in chapter 1), Hornaday condemned the still-hunt: "of all the methods that were unsportsmentlike, unfair, ignoble, and utterly reprehensible, this was in every respect the lowest and the worst."[139]

Wildlife biologists are still unsure of what made still hunting so successful. Unlike their ancestors the steppe bison, who likely stood their ground at a predatory threat, bison evolved to run away from trouble as a herd. This evolutionary response to danger is exactly what Indigenous people were taking advantage of when they led bison over jumps or into pens. Additionally, bison developed another a defense strategy of safety in numbers. In moments when flight is not possible, bison will circle up as a herd, often protecting the youngest and weakest in the middle of the herd. While this evolutionary response is very useful when responding to ground level threats like wolves, the stationary wall of bison bodies would be an easy target for gunshot. Moreover, and strangely, during still hunts, hunters could pick off dozens, if not hundreds, of bison in a herd at one time because, for some reason, the bison did not flee at the sound of a gunshot or the sight of another bison falling. Hunters of the period explained that herds always followed a leader, often one of the oldest cows, and if you could figure out which cow was the leader, by shooting her first, the herd would see her motionless, and also stay put. Whatever the reasons, bison, though co-evolved alongside humans, did not evolve alongside humans armed with guns, and could not adapt their defense strategies quickly enough.

An 1888 painting by Canadian artist James Henry Moser (Figure 29) illustrates the still hunt. This painting, along with another by the artist titled *Where the Millions Have Gone* were commissioned by Hornaday for an exhibit on *The Extermination of the American Bison* as the

[139] Hornaday, 465.

Smithsonian's contribution to an 1888 exposition in Cincinnati.[140] In 1890, the Smithsonian asked Moser to recreate the paintings for their Indian galleries, demonstrating the institution's understanding of the link between bison eradication and state sponsored Indian removal. Moser's painting both displays the mass scale slaughter made possible through the still hunt by the number of already fallen bison and the mass amount of ammunition still available to be used displayed prominently in the bandolier laying alongside the hunter. At the same time, however, Moser makes the bison seem incredibly numerous, extending infinitely as black dots into the distance.

Despite the generally accepted idea that bison eradication was beneficial to 19th-century genocidal Indian policy, many senators, particularly from Midwestern and Western states, were concerned about the rapidly declining bison populations and sought to create legal protections. In 1872, California Senator Cornelius Cole introduced a bill to protect bison, elk, and antelope-though this bill quickly failed. Two years later, the House and Senate passed a different piece of legislation, introduced by Greenburg Fort of Illinois, that put limits on bison hunting, including making it illegal for anyone besides American Indians to kill cows. Despite congressional support for the bill, President Grant ignored it, leading to a pocket veto. Fort reintroduced this bill in 1876, and while it passed it the House, it never made it out of the Senate. By this time, however, following the Battle of Greasy Grass (the Little Big Horn) and Custer's death, it was likely that support for bison eradication was even more closely linked to the genocidal logic of Indian removal, leading to more staunch support of bison eradication.[141]

Today, with practically no wild bison left, bison are still not federally protected. In 2019, the US Fish and Wildlife Service declined petitions to list the Yellowstone Bison as a threatened

[140] Alan Braddock, "Icon of Extinction and Resilience," in *Nature's Nation: American Art and Environment*, ed. Karl Kusserow and Alan C. Braddock, (New Haven: Yale University Press, 2018): 255.
[141] Flores, 131.

designated population under the Endangered Species Act.[142] Instead, bison are classified as livestock in most states (with the exception of Utah), which means they are not eligible for protections on a species scale and are regulated as a domesticated species.[143] There are still around 64 conservation herds left in the United States, with 44 of those herds on land originally part of natural and historic bison range. These conservation herds make up a small population of bison in the United States; 90% of bison in the US are in private or commercial ownership and are mostly destined for the beef market.[144] Of all of these bison, whether in conservation herds or bred for the meat industry, the majority are descended from just a few individuals and most have cattle genetics from interbreeding.

Today's conservation herds owe a great deal to 19th-century conservationists and bison enthusiasts. In the late 19th century, a few concerned individuals took action to preserve the bison herds, safeguarding those few animals that have since populated today's herds. As early as the 1870s, Charles Goodnight, a Texas rancher, along with James McKay and Charles Alloway of Manitoba, and Samuel Walking Coyote with his wife Sabine on the Flathead Reservation in Montana, established small bison herds by capturing calves and raising them on cow milk. In the 1880s Frederick Dupree (or Dupuis) and his wife Mary Ann Good Elk Woman (Miniconjou) created a herd in the Dakota Territory, eventually selling it to Scotty Phillip in 1901.[145] While ranchers like Goodnight, and later Charles Jesse "Buffalo" Jones, created bison herds and crossbred them with cattle to make the animals more manageable, the Duprees and Walking Coyote were invested in restoring bison to native communities for cultural reasons, allowing their herds to be free ranging on reservation land, which theoretically preserved a wildness, but

[142] See Chapter 1 for a brief discussion of Designated Populations in the ESA.
[143] Bailey, 162.
[144] Ibid, 150.
[145]Zontek, 48, 63.

made them more susceptible to poaching once bison wandered off the protected reservation land.[146] The passage of the Dawes Act or General Allotment Act in 1887, which divided native held land into individual allotments that could be purchased by settlers if unclaimed in native communities, saw to the end of bison herds on reservation land until the mid-20th century.[147] By dividing land into private allotments, in an attempt to assimilate Indians through private land ownership, the federal government destroyed the shared commons that bison herds had grazed on. Michael Pablo and Charles Allard, who purchased the Walking Coyote herd, attempted to sell their bison to the federal government after allotment made it impossible to keep the herd on Flathead land. When the federal government declined their offer, Pablo sold the herd to the Canadian government, making an enemy of Hornaday who wanted as many bison to remain in the United States as possible.[148] Phillip had also hoped to sell his herd to the federal government, and though not successful in this, the state of South Dakota did buy his herd in 1911 from his widow; descendants of this herd still exist in the state's Custer State Park.[149]

Besides the families that had the foresight to capture calves to raise protected bison herds, Hornaday is likely the biggest name in bison conservation in the United States. In 1886, according to his estimations, the total number of bison left in the wild in North America was only 635. Only 85 of these, he believed, were free roaming in the United States, with another 256 in captivity and another 200 protected in Yellowstone.[150] In response, and as a preservative effort, he mounted a bison hunt to Montana in order to secure multiple specimens for the nation's natural history museums. This included collecting five specimens, representative of different ages, for the Smithsonian. From this, Hornaday unveiled a new habitat group in 1888 consisting

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[146] Ibid, 55.
[147] Ibid, 59.
[148] Ibid, 59, 61.
[149] Ibid, 65.
[150] Hornaday, 525.

of the taxidermied animals. He also brought back a live calf that would be the start of the Smithsonian's live animal collection. The calf, unfortunately, did not survive long and became the sixth bison in his habitat group. Of the months Hornaday and his team spent in the field, the largest herd of bison they saw was only 14 strong. Of this herd, they killed four individuals.[151] In total, they collected 25 bison specimens, a far cry from the 50 Hornaday set out to collect and distribute to museums and natural history institutions across the nation. The 25 bison were made up of 10 old bulls, one young bull, two old cows, four young cows, two yearling calves, and one three-month old calf. From these and bones they collected in the field, the Hornaday expedition attained 24 fresh skins, one head skin, eight fresh skeletons, eight dry skeletons, 51 dry skulls, and two fetuses.[152] At the time of this hunt (1886), Hornaday believed that bison numbers were too small to survive, and that at the very least, museums like the Smithsonian should have excellent records of the animals as they once existed.

Hornaday mounted the bison group (Figure 30) to provide a window into an ecosystem of the past. The bison group offers a vision of Montana, or the Great Plains in general, as it was once was – teeming with megafaunal life. By placing some of the skulls he collected throughout the display (as can be seen in the lower right-hand corner of the diorama), Hornaday reminds viewers of the impending destruction of this species. In a description in the *Washington Star* from March 10, 1888, Harry P. Godwin writes of the new diorama: "In the grass some distance from the pool lie the bleaching skulls of two buffalo who have fallen victims to hunters who have cruelly lain in wait to get a shot at the animals as they come to drink. Such relics, strewn all

[151] Hornaday, 537.
[152] Ibid, 545. Additionally, this hunting trip also provided enough specimens for new habitat groups of antelope, coyotes, and prairie dogs.

over the plain, tell the story of the extermination of the American bison."[153] The large bull in this group also became a national icon, and is the model used on things such as buffalo nickels. Goodwin references the preservative import of this habitat group, but especially of the large bull: "It seemed as if Providence had ordained that this splendid animal, perfect in limb, noble in size, should be saved to serve as a monument to the greatness of his race, that once roamed the prairies in myriads."[154] These six bison have since been returned to Montana, where Hornaday collected them, and the diorama is now featured in the Hornaday/Smithsonian Buffalo and Dean & Donna Strand Western Art Gallery and the Museum of the Great Plains in Fort Benton.

Hornaday, in addition to his preservative drive to kill and mount the last remaining bison he could find, also founded the American Bison Society (ABS) in 1905. With Hornaday as the President, and Teddy Roosevelt as the Honorary President, the ABS touted membership primarily from east coast elites and big game hunters. The Society's main objective was to advocate for wildlife refuges and take bison from captive herds and reintroduce them into wild spaces in order to save bison from extinction. The Roosevelt administration created the National Wichita Forest Reserve (now Wichita Mountains Wildlife Refuge) in Oklahoma in 1905, and in 1907, the ABS encouraged Congress to approve the fencing in of 8,000 acres and the purchase of 15 animals from Hornaday and the New York zoos.[155] In 1908, Congress purchased land in Montana to establish the National Bison Range, but declined to furnish the funds to purchase bison to populate it. ABS, after a massive fundraising campaign, bought and shipped 37 bison to the refuge in Montana. [156] ABS was also instrumental in providing bison to start herds at Fort

[153]Harry P. Goodwin, "A Scene from Montana – Six of Mr. Hornaday's Buffaloes Form a Picturesque Group – A Bit of the Wild West Reproduced at the National Museum – Something Novel in the Way of Taxidermy – Real Buffalo-Grass, Real Montana Diet, and Real Buffaloes," *Washington Star*, March 10, 1888, printed in Hornaday, 547.
[154] Ibid, 547.
[155] Dale Lott, *American Bison: A Natural History,* (Berkely: University of California Press, 2002): 189.
[156] Lott, 188.

Niobrara, Nebraska and what is now Wind Cave National Park in South Dakota in 1913.[157] By 1911, however, Hornaday was convinced that these successes meant that bison were no longer in danger of extinction, and by 1936, ABS had disbanded.[158]

While it seems bison have been saved from the brink of extinction, only a very small fraction of the once very large population exists outside of commercially managed herds today. And the bison that do roam their historic range do so under heavy management by federal, state, and tribal agencies, almost all behind fences or other physical barriers.

Vanishings

As discussed in the introduction, dwindling bison populations were often linked to the trope of the Vanishing Indian, which sees Indian erasure as inevitable and places Indians only in the past, denying them existence in the present or participation in modernity. Figures like Hornaday, for instance, understood the close cultural link and kinship ties between bison and Plains Indians and recognized the physical impacts that the destruction of the bison would have on Indigenous cultures. As I have already mentioned, Hornaday often blamed Indians for excessive bison slaughter and therefore believed that the impacts diminishing bison numbers had on native foodways and experienced by many Plains tribes in the late 19th century was deserved; a lack of stewardship, he argued, created the predicament in which Indigenous populations now found themselves. But as I have already explained, destruction of the American bison was primarily due to the unregulated market, which is not to say that no individual Native Americans caved to the pressures of the market as some individuals did sell robes and bison meat to fur

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[157] Ibid, 189.
[158]Bailey, 155.

companies.[159] However, the language used to describe the last remaining bison was often drawn from settler colonial discourses of the Vanishing Indian, including firsting and lasting, as I will explain below, and concepts of blood purity. These discourses still shape how bison are seen in the American cultural imaginary today.

The Allotment era, which gave rise to an American interest in Indian heritage and bloodlines also fostered a linked obsession with bison genealogy. Similar discourses of genetic purity expose the linkages that settler colonial society made between Indian and bison policy. With bison numbers so low by the end of the 19th century, they interbred with cattle. For some wild bison who shared grazing ranges with cattle, they turned to cattle because their own numbers were too low to support a healthy breeding population. Others were interbed intentionally by ranchers to create cattalo because these bison hybrids were easier to control as domesticated animals on ranches. This interbreeding creating an obsession in 19th-, 20th-, and 21st-century discourses with purity of bison genes, including the assumption that wild (read: pure) bison are better.

In her discussion of the co-constitution of contemporary genetic science with cultural conceptions of race and indigeneity, Kim TallBear identifies the "blood politics" of heritage and belonging that developed from late 19th- and early 20th-century eugenicist pseudo-science and the legislation of tribal affiliation. TallBear acknowledges many instances in which tribal authorities exert sovereignty in the determination of blood quantum policies, yet she also points to the Allotment period, when native landholdings were radically reduced, as a moment in which tribal affiliation and Indian identity were imposed upon native communities. During the same period, eugenicist understandings of race saw Native Americans as higher on the racial hierarchy than African Americans, and therefore closer to whiteness. This belief led to assimilationist policies,

[159] Flores, 128.

like the Dawes or Allotment Act, which was informed by the repeated sentiment "Kill the Indian, save the man." In order to distribute land divided up by the Dawes Act, tribal and federal authorities created the first "base rolls," which registered individuals as enrolled members of a tribe in order to receive their allotted land; in some circumstances these rolls are still used today.[160] The Dawes Act also gave full legal title of land allotments to any person deemed "half blood," Indian or less, while individuals who were identified as more than "half blood," had their land titles held in trust for 25 years. The idea was that Indians who could be considered "more white" were more likely to be assimilated by the process of private land ownership.[161] This understanding of Indian heritage differs dramatically from the American cultural understanding of blackness at the same period, in which blackness was determined by, colloquially, one drop of blood. Thus, while federal policy attempted to erase Indian identity, the American cultural imaginary also fetishizes Indian blood, as can be seen through claims white Americans make today to have distant Indian ancestors, or the popularity of home DNA tests.[162]

This kind of fetishization of blood and heritage has also been done with bison herds, with claims made that more genetically wild and "pure" lineages can trace their ancestry to specific early conservation herds. Purity is proven through the use of historic stud books that trace and record bison ancestry. Even scholars who are primarily focused on demonstrating Indian sovereignty in the management of bison conservation fetishize the purity of bison genealogies preserved by native families.[163] This discourse often criticizes 19th-century ranchers like Goodnight who interbred bison with cattle, using the occurrence of cattle genetics, or lack

[160] Kim TallBear, *Native American DNA: Tribal Belonging and the False Promise of Genetic Science*, (Minneapolis: University of Minnesota Press, 2013): 56.
[161] Ibid, 56.
[162] These kinds of claims of native ancestry are discussed more in Chapter 4, including a discussion of Senator Elizabeth Warren.
[163] See Zontek.

thereof, as a measure of bison-ness over other qualities, such as herd size, herd makeup (in terms of gender and age distributions), access to historic ranges, ecosystem interactions (including with natural predators), or even behavior. By no means do I seek in this discussion of bison blood politics to equate nonhuman animals with the politics of tribal enrollment. Rather, my goal is to identify the origins of obsession over bison purity and ancestry in late 19th-century settler colonial and eugenicist categories of race and identity. Bison, managed as livestock today, are still embroiled within this obsession for purity and heritage as stud books are still in use and managers of conservation herds frequently brag about the purity of their bison. For example, in 2018, FermiLab, which maintains a small herd, released a statement that the animal is in their herd, "have been tested and found to contain no evidence of cattle genes in the mitochondrial or nuclear DNA."[164] Fetishizing bison genetic purity also denies the complicated steps, including cattle interbreeding, that were necessary to save bison as a species.

These categories based on purity are used alongside other settler discourses, such as firsting and lasting, as developed by historian Jean O'Brien, and discussed in Chapter 1, to more specifically link bison eradication to Indian erasure. Rungius participates in this discourse of lasting with his 1900 painting *The Last of the Buffalo (Near Cora, WY)* in which one large central bull stands at attention along a ridge in a cold and snowy landscape (Figure 31). Like many other representations of bison endings, a few more individuals are visible just cresting over the ridge beyond the large bull. Their brown humps stand out against the snowy ground, perhaps demonstrating how these large animals became such easy targets during the winter months. A dark cloud forms over this small herd, likely foreshadowing the difficult future that looms ahead for the bison. The site Rungius identifies for this scene, Cora, WY, is also the location of the Lozier Ranch, which was owned by a friend of Rungius and served as the base for many of his

[164] "FermiLab Bullish on Bison," November 21, 2018, https://news.fnal.gov/2018/11/fermilab-bullish-on-bison/

Wyoming hunting trips. Rungius wouldn't have seen any live bison on these hunting trips because they were all but eliminated from the wild by the time he traveled to Wyoming. His journals from the time, however, reference the countless bison bones, scattered across the landscape, that he saw.[165] Instead of painting the reality he witnessed, of the scattered bones, he instead depicts an imagined existence for the bison.

In colloquialisms of the 19th century, the categories of both species and humans were referred to as races, making these two words almost interchangeable.[166] Bison, then, were often referred to as the last of their race. Rungius was not alone in painting a scene imagining the last bison herds; paintings of the last of the bison were common from the late 19th century through the early 20th century. Many artists, including landscape painter Albert Bierstadt visually connected bison to the discourse of lasting and the trope of the Vanishing Indian, as explained in the introduction. Not only does Bierstadt's painting *The Last of the Buffalo* (Figure 32), use the direct terminology of lasting in its title, but the painting is also referred to as the artist's last great western painting. In a similar way that Shiras uses the discourse of firsting and lasting to connect wolves and deer to the Vanishing Indian, Bierstadt links Plains Indians and bison as the last of their kind, thereby simultaneously emptying the Great Plains of both bison and people in order to make the land available for settlers and their cattle. The painting is a composite of many sites sketched by the artist, meaning it does not represent a specific landscape, as Hornaday's bison diorama attempts to do, but rather provides a view that could be anyplace in the American west.[167] Bierstadt's scene is a depiction of an imagined past, where the Indian is as much at risk of extinction as the bison. Like Hornaday's scene, Bierstadt references this future extinction

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[165] Carl Rungius, Journal of Wild West Trip, handwritten in German, translation accessed in Glenbow Archives.
[166] Gordon Sayre, "The Mammoth: Endangered Species of Vanishing Race?" *Journal for Early Modern Cultural Studies* 1, no. 1 (Spring-Summer, 2001): 63-87, 77.
[167] "The Last of the Buffalo," *The National Gallery of Art*, https://www.nga.gov/collection/art-object-page.124525.html, accessed on 6/25/2020

through the scattered bison bones, adding to the violence of this process through the carcasses displayed in the foreground. Some of these, like the bison in the lower right-hand corner, even appear to be in the throes of death.

Just as the landscape is generalized rather than specific, the figures in the painting are meant to represent a general Plains Indian, that is, the 'imagined Indian,' rather than any historical truth. The central figure, on horseback, is locked with a large bison, pictured in a dramatic diagonal, holding aloft a spear that has cut clean through the bison, exiting its side just below its foreleg. The bison, horse, and rider are entwined, forging a visual connection (one that is also reiterated by Biertadt's color choices) between the body of the rider and the body of the bison, displaying Bierstadt's belief in the connection between bison and Indians. Much like Moser's depiction of the still hunt, however, the bison being slaughtered in Bierstadt's painting are clearly not the last of their species, as the large herd can be seen extending infinitely back into the open plains. Other animals can be seen among the bison herd, including elk, coyotes, pronghorn, foxes, rabbits, and even a prairie dog among the bleached bones in the lower left corner. Most of these animals turn to gaze upon the bison being speared in the middle of the frame, perhaps prescient of the massive effect bison eradication will have on the plains ecosystem.

These kinds of images of bison hunts were common in the 1880s, especially among artists like Bierstadt who earned fame through the visual depictions of Manifest Destiny and westward expansion. Similarly, Frederic Remington, who painted the wolves discussed in the previous chapter, created primitivized representations of Plains Indians, such as *Buffalo Hunt*, from about 1890 (Figure 33). Remington, like Bierstadt, envisions the bison hunt as a violent act. Unlike Bierstadt, Remington depicts it as more dangerous to the humans, with the large bull

trampling a figure on the ground while it gores his horse. Remington provides almost no landscape place clues, creating his version of the ‘anyplace’ western landscape through the general yellowing of the ground, perhaps indictive of plains grasses; the peak of an abstracted blue mountain crests along the horizon line. Remington’s lack of place renders the setting an abstract quality, which also removes a sense of time from the painting. It is as if this buffalo hunt could take place not only anywhere, but also any time. The move to eliminate a specific sense of place or time further serves to primitivize the individuals pictured by removing them from the scales of modernity and settler measures of time.

Bierstadt and Remington are united, however, in imagining the bison’s ending at the hands of native hunters, denying the devastating impact the settler taste for robes, tongues, and trophies had on bison numbers. It is likely that artists such as Remington and Bierstadt understood both bison and native culture as victims of progress, doomed to disappear together at the march of civilization westward. Unlike the paintings by Remington, Bierstadt, or even Moser, Rungius’ bison (both in *Last of the Buffalo* and *Days of Bison Millions*) by contrast are yet to face a human threat. Meant to provide a window onto the populous past of the bison, Rungius’ vision raises awareness of the bison’s fight with extinction but naturalizes the process. This tension, between highlighting the species scale loss and denying its causes, is what places Rungius’ painting within the conservation aesthetic. Rungius mourns the loss of bison by depicting the scale at which bison herds once roamed the Great Plains, but instead of pointing the finger at the white hunters who slaughtered these millions and the consumers who purchased their robes, he presents the extermination of bison as inevitable, as a natural step in the process of westward expansion.

In most of his other paintings, Rungius worked hard to capture qualities of specific animals in specific locations. His paintings were the result of the laborious process of sketching and photographing wilderness areas he had visited and wild animals he had hunted. In many respects, his paintings are almost taxidermic, creating a two-dimensional diorama display of a hunting trophy. Rungius' paintings have often been compared to taxidermy dioramas.[168] In part this is due to his precise presentation of animal anatomy, but also to the fact that his painting method so often involved the death and dissection of the animals pictured (see Figures 21, 22, 23 and 26). Rungius' process included directly manipulating the carcasses and skins of animals he hunted and setting them up in habitat scenes. He also contributed to actual taxidermy dioramas, including painting the background of the moose diorama at AMNH. These paintings, most often referred to as sporting art, are attempts at visually recreating a moment of the hunt, particularly the moment just before the hunter fires a fatal shot. Donna Haraway describes this moment of encounter as instrumental to what she names Teddy Bear Patriarchy of the diorama displays at AMNH, as discussed in the Introduction and elaborated further in Chapter 3.[169] Haraway argues that the recreation of the moment of encounter allows museum goers to virtually participate in the hunt, and therefore in the masculinist process of the Strenuous Life.[170] Haraway conceives of Teddy Bear Patriarchy specifically in terms of the diorama displays at AMNH, and the ways in which they utilize virtual manifestations of the hunt to educate visitors in the systems of whiteness and patriarchy celebrated by the Strenuous Life. These recreations of the hunt, however, also appear in Rungius' paintings and likely influenced the compositions of prehistoric

[168] See Karen Wonders, "Big Game Hunting and the Birth of Wildlife Art," in *Carl Rungius: Artist & Sportsman* and Alex Nemerov, ""Haunted Supermasculinity: Strength and Death in Carl Rungius's *Wary Game,*" *American Art* 13, no. 3 (1999): 3-31.
[169] Donna Haraway, "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936," *Social Text*, no. 11, (Winter 1984-1985): 20-64.
[170] Ibid.

animals created by Knight. In many respects, Knight relies on the standards set by sporting artists like Rungius to create his representations of the distant past. Just as Rungius' paintings are taxidermic, creating a momentary confrontation with the wild animal, Knight tries to present animals of prehistory as present and huntable. In this, he seeks to bring viewers into contact with the mammoth the same way that Rungius confronts us with the game animals he paints.

But without bison to hunt, *Days of Bison Millions* is not a scene he had witnessed—Rungius' wild bison are not real animals, but imagined ones. To begin with, the date of the painting indicates that this is clearly a vision of the past, one that existed even before Rungius had first traveled to Wyoming in 1896. In 1917, bison numbers were dramatically lower than one million, let alone the 30 or so million Rungius is likely referencing by the multiple millions in his title. The directional orientation of *Days of Bison Millions* also sets the painting as representative of the past. As part of a reading of *Westward the Course of Empire* by Emmanuel Leutze, Roger Cushing Aikin identifies a common compositional trope of paintings depicting the American West. Images of western landscapes, especially those depicting the movement of settlers and ideals of civilization (like railroads and telegraph wires), are composed in a right to left orientation. John Gast's *American Progress* from 1872 (Figure 34) is a prime example of this. Applying cardinal directions over these images as one would find on a traditional Euro-American map, with north at the top of the frame, east at the right, etc., Aikin demonstrates how many images of the American west are moving in an east to west directionality, that is, along the general path of settlement of the United States. Aikin writes: "it is difficult to find any depiction of American westward expansion, or 'progress,' in high art or popular illustration that does not feature strong right-to-left, or 'westward,' movement."[171] The emphasis on progress, which is

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[171] Roger Cushing Aikin, "Paintings of Manifest Destiny: Mapping the Nation," *American Art* 14, no. 3 (Autumn 2000): 80.

often understood not only as advancement through space, but also through time, lends these westward moving images a sense of a future-looking as well. The large bison in the foreground of Rungius' painting, however, looks toward the right frame of the image, and so is not westward gazing like so many contemporary images of the American West. In can be interpreted then, that to look eastward is, in a sense, to look backwards. And in the case of the large bison herd, which no longer exists anywhere on the Great Plains, this painting can only be understood as a scene from the past. Similarly, Knight also frequently subverts the typical right to left orientation of Westward progress in his paintings, like in his woolly mammoth mural for the Field Museum (Figure 25), where, like Rungius' bison, the mammoths march eastward across the canvas, drawing viewers into the deep time of the image.

Picturing Extinction

Bison were one of the few megafauna species to survive the late Pleistocene extinctions, a fact that makes their eventual decimation all the more tragic. The most abundant groups of large Pleistocene mammals were bison, mammoths, and horses, all three providing an important role through foraging and grazing.[172] While commonly referred to as the Ice Age, the Pleistocene actually experienced a series of warming and cooling episodes, divided into four major glacial events.[173] However, around 10,000-12,000 years ago, a period now understood to mark the transition between the Pleistocene and the Holocene experienced a warming stage that created profound changes in the climate, melting many of the glaciers and drastically shifting the distribution of plants that the large numbers of grazing megafauna relied on, leading to a

[172] Eric Post, *Ecology of Climate Change: The Importance of Biotic Interactions,* (Princeton: Princeton University Press, 2013): 25.
[173] Post, 26.

dramatic decrease in megafauna numbers.[174] The loss of these ungulate species had detrimental impacts on the broader ecosystem and limited other species' abilities to respond to the shifting climate.[175] This period of mass extinction is known as the Quaternary Extinction, and it witnessed the demise of most megafaunal species in North America, including the woolly mammoth, the dire wolf, horses, short-faced bears, lions, and saber-toothed cats.

The warming period that led to the Quaternary Extinction also coincided with the period that human populations reached most of the globe. Because of this, many have pointed to humans as a main cause of the extinction, a theory referred to as the 'overkill' hypothesis, first proposed by geoscientist Paul Martin in the 1960s. But not all evolutionary biologists agree with this hypothesis. It seems much more likely that megafaunal populations decreased due to climate change and impending habitat loss more than exclusively from the extra pressure caused by human predation. To begin with, humans appeared in Eurasia around 40,000 years ago, coexisting with many of these megafaunal species for tens of thousands of years without causing their demise. Moreover, genetic research indicates that North American mammoth populations began to decline around 20,000 years ago, well before humans arrived on the continent.[176] Additionally, humans did not reach the more northern latitudes where they overlapped with mammoths until about 6,000 years ago, a point when mammoths were almost already extinct.[177] In some of these places, like Wrangel Island off the northeastern coast of Siberia, mammoths survived until as recently as 3,700 years ago, which also puts the sudden overkill hypothesis into

[174] Frank T. Rhodes, "Defrosting the Mammoth," *Origins: The Search for our Prehistoric Past*, (Ithaca: Cornell University Press, 2016): 3.
[175] Post, 31.
[176] Beth Shapiro, *How to Clone a Mammoth: The Science of De-Extinction*, (Princeton: Princeton University Press, 2015): 2
[177] Post, 44.

question.[178] According to genetic research, megafauna survived in other isolated pockets much later than previously thought as well. Steppe bison, for example, lived as recently as 1,000 years ago in small, isolated patches in the far northern Rocky Mountains.[179] The last mass extinction, then, was not the result of one singular catastrophic event or ecosystem pressure, but rather a complex combination of habitat loss, climate change, predation by humans, and perhaps additional pressures or evolutionary changes that science is not yet aware of. Though no longer accepted by the scientific community as the primary cause of the Pleistocene extinction, the overkill hypothesis is still widely accepted by the general public, due to Martin's influential 1967 article that raised popular awareness of the overkill theory.[180] This acceptance of the human causes of earlier extinctions helps naturalize anthropogenic extinctions in the 19th and 20th centuries.

Vine Deloria, a Standing Rock Sioux historian and activist, was among the first to challenge the ready acceptance of the overkill theory. For Deloria, not only is the science limited (he cites the lack of physical evidence of mass scale megafauna slaughter in the fossil record, for example) but the hypothesis also ignores many Indian oral histories which suggest recent ancestors living alongside now extinct megafauna, including the Hairy Elephant star constellation named by the Sioux or other tribal memories of giant beaver among the Mi'kmaq, Penobscot, Wabanaki, and Maliseet people.[181] Most pressingly, Deloria also sees the overkill hypothesis as a product of settler colonialism, because "the image which science has given American Indians is such that modern Indians are blamed for the extinction of these

[178] Shapiro, 5
[179] Ibid, 5
[180] Paul S. Martin, "Prehistoric overkill" in *Pleistocene extinctions*, ed. P. S. Martin & H. E. Wright, (New Haven, CT: Yale University Press, 1967): 75-120
[181] Vine Deloria, Jr., *Red Earth White Lies: Native Americans and the Myth of Scientific Fact,* (Golden, CO: Fulcrum Publishing, 1997) 150.

creatures."[182] This logic, that Indians caused extinction, also serves to justify contemporary extinction events, seeing them as natural processes that humans have experienced before, and in effect, claiming a Paleo-Indian past as part of a long American history that includes Euro-Americans. As Deloria states: "Some people are offended by the idea that many people believe that Indians were more concerned and thoughtful ecologists than modern industrial users. Advocating the extinction theory is a good way to support continued despoliation of the environment by suggesting that at *no* time were human beings careful of the land upon which they lived."[183]

Knight's murals of the wooly mammoths and Runguis' paintings of bison expose late 19th- and early 20th-century understandings of what led to bison slaughter and mammoth extinction, an understanding that involved denying the explicit human causes of the decimation of entire species in just a few decades. Through this process of naturalization, it becomes easier to imagine that today's bison also still exist in a natural state, as wild and not highly managed. In turn, this effort, which can be understood as de-extinction, further naturalizes the process that led to bison eradication. Rungius' and Knight's paintings unveil attitudes about extinction and de-extinction today. As evolutionary biologist Beth Shapiro states:

> Extinction is much easier for us to swallow when it is clearly *not* our fault. Why did the mammoth go extinct? As humans, we want the answer to be *something natural*. Natural climate change, for example. We would prefer to learn that mammoths went extinct because they needed the grasslands of the steppe tundra to survive and that they simply starved to death as the steppe tundra disappeared after the last ice age. We would prefer not to learn that mammoths went extinct because our ancestors greedily harvested them for their meat, skins, and fur.

I agree with much of what Shapiro argues here, except for one point. When Shapiro refers to an us," or "we," who is she referring to? How does she determine a shared ancestry to the Paleo-

[182] Ibid, 112.
[183] Ibid, 112-113.

Indians in North America who purportedly had a role in megafaunal extinctions? Perhaps unknowingly, Shapiro ignores the specificity of settler-colonialism in both the presentation of extinction in the past and the industrial and capitalist causes of biodiversity loss in the present. In the same way that megafaunal and bison extinctions become naturalized, the de-extinction of bison visualized in paintings like *Days of Bison Millions* is naturalized as well. In a very similar way that Shapiro explains we (Euro-Americans) *want* to believe that mass extinction is not our fault, settler culture also needs to imagine that bison still roam the west in large herds as Rungius pictures them. His representation of bison is one of the most common visions of bison in the cultural imaginary – a far cry from bison's actual existence as highly managed semi-wild livestock.

Instead of serving as a warning about the extreme fragility of ecosystems and species survival under the pressures of climate change, the late Pleistocene extinctions have been mobilized to naturalize both climate change and biodiversity loss in the Anthropocene. Charles Knight made this connection between modern biodiversity loss and the overkill hypothesis from the Pleistocene when he frequently created images of human ancestors in the middle of the hunt, effectively illustrating humans as comprehensive predators that killed off other species. In a 1942 painting for *National Geographic*, for instance, Knight depicts a group of early Plains hunters circling a bison (Figure 35). Knight places this scene firmly in a landscape of the distant past, signaled by the smoldering volcano in the background. A common motif in his (and others') prehistoric scenes, the presence of an active volcano is meant to transport viewers back to a primeval and potentially violent land.

Knight's painting of a bison hunt is an image of a distant past, but it is so formally similar to Remington's bison hunt, it seems as if the artist is blurring the timescales between the distant

and more recent pasts of the animal. Even the yellowed grass and distant ridges of both paintings make them appear as if they came from the same landscapes. Such formal choices work to connect both Remington and Knight's figures to an earlier time. The hunting technology illustrated by both artists has changed only slightly: arrows replace spears, and the Indians ride horses in Remington's image rather than stand on foot as in Knight's work. The horses are evidence of colonial influence and cultural syncretism, yet the other similarities present the durational understanding of Plains Indians by settler colonial culture as existing in the past. In a sense, the prehistoric hunters depicted by Knight may as well be the same individuals painted by Remington. The bison makes this comparison particularly lasting, as an enduring visual link between Paleo Indians and Plains Indians.

AMNH, Knight's primary patron, often framed Knight's murals in terms of a discourse of discovery, which further primitivized the indigenous people they picture by linking them more closely to prehistoric ancestors (or even to animals) than to their contemporary moment. The 1920 pamphlet describing the Hall of the Age of Man, places Knight's murals in an originary context, stating that the Hall and its exhibitions, including the murals, intends "to illustrate what is known of the origin, relationships and early history of man, as deduced from his remains and primitive implements, and also to show the animals by which he was surrounded in the early stages of his existence."[184] In the museum's design, primitive humans and animals are considered side by side, which is especially problematic because the museum also seems to equate indigenous people with prehistoric animals.

Even more insidiously, Knight's illustrations helped AMNH scientists such as Osborn, who was president of AMNH, and William King Gregory, who was curator of comparative anatomy, make racist and primitivist claims about human origins and evolution. In a 1923

[184] Osborn, 3.

interview for *McClure's* magazine, Osborn and Gregory discuss fossil evidence for the Dawn Man (*Homo eoanthropus*, also known as the Piltdown Man), a recently discovered human ancestor believed to be the missing link. This fossil evidence was later revealed to have been hoaxed. Knight drew illustrations specifically for this article, including pictures of the Dawn Man hunting mammoths, which were based on "actual skeleton remains," of the mammoth and the "fragmentary skull," of the Dawn Man (Figure 36).[185] Referring to Knight's images of mammoth hunts as evidence, Osborn and Gregory argued that people of color and Indigenous people were steps on the evolutionary hierarchy to whiteness, as can be seen illustrated in a chart published alongside the interview (Figure 37). According to the text and chart in Osborn and Gregory's *McClure* article, indigenous Australians were descended from Neanderthals while Europeans descended on a separate line from Cro-Magnons. In this schema, Indigenous Americans were considered to be on the same evolutionary path as white Europeans, but were thought of as steps lower, as "the nearest modern comparison to the Cro-Magnon in facial appearance is the Eskimo."[186] This thinking is made obvious in a comparison between different groups of prehistoric people illustrated by Knight. His drawing of Dawn Men hunting a mammoth (Figure 36) picture the prehistoric people believed to be more closely related to people of color as the missing link, simian and animal in appearance. His drawing of the people believed to be the ancestors of Europeans (Figure 37) depicts a group of people who appear entirely human, living in organized social structures with domesticated animals. In Knight's racist conceptions of prehistory, the mammoth pictured as under attack by Dawn Men may as well be a bison hunted by Plains Indians. Their vision of prehistory distances Euro-Americans from deep time while conflating prehistory with the existence of Native Americans. In other words, Indians,

[185] Hugh Weir, "The Dawn Man: An Authorized Interview by Hugh Weir with Henry Fairfield Osborn and William King Gregory," *McClure's Magazine* 55, no. 1 (March 1923), 20-21.
[186] Ibid, 26-27.

and even the animals they hunt, are seen as existing only in the past. Gregory uses these linkages made between prehistoric animals and human ancestors to describe the inevitability of Indian erasure and settler colonial genocide: "the fate of such inferior peoples is sealed…They will be wiped out just as surely, just as relentlessly, though perhaps in a more humane and less primitive fashion, as the Cro-Magnon exterminated the Neanderthal. The law of the survival of the fittest operates still."[187] This attitude of inevitability was also applied to the bison, as bison eradication was seen as a nearly natural and necessary step in the process of Indian removal.

In *Days of Bison Millions*, as the viewer looks across the Wyoming range, the bison's backs blend into the landscape, making it difficult to tell whether the shading in the far middle ground of the painting represents bison or depressions in the landscape. Rungius paints an ecosystem where bison are so populous, that it becomes impossible to distinguish the animals from the land they graze. In this vision of the past, bison are part of the landscape. But, this idea, of bison growing out of the very landscape, is only a fantasy; by this point, bison only existed in managed herds and will never again be the millions roaming the plains and prairies of North America. Rungius is painfully aware of this future threat of species eradication. While bison had been reintroduced into some areas, by 1917, when he completed *Days of Bison Millions*, it was far too late to change course for the animal's survival as a wild animal on the open range. The appeal of Rungius' depiction of bison is based on a nostalgic view of the past that gives this image its staying power. *Days of Bison Millions* was painted just a few years after Hornaday and the ABS helped reintroduce bison to wildlife refuges in Oklahoma, Montana, and Nebraska. Thus, though nowhere near their early 19th-century numbers, bison were at least no longer teetering on the brink of extinction by the time Runguis completed his painting. In fact, they could be seen roaming several thousand acres of their original habitat on federal and state land

[187] Weir, not numbered.

across the Great Plains. Despite this, *Days of Bison Millions* imagines a Great Plains of the past, full of millions of bison not faced by eradication at human hands. In doing so, the process of bison eradication is naturalized and it becomes easier to imagine a future for bison recovery that could look similar to this past. Bison will never again range in herds millions strong, yet even heavily managed conservation herds are imagined to look more like the animals in *Days of Bison Millions* than the livestock they are managed as.

In 1917, this vision of millions of bison could only occur in painted form and could not be witnessed in reality. If Rungius (or any of us for that matter) were to visit the Wyoming Range, even today, he would not be confronted by large bison herds like his painting imagines, but instead by their obvious absence in the landscape. Moser represents precisely this absence in a companion to *The Deadly Still-Hunt*. The painting, titled *Where the Millions Have Gone* (1888) shows an aftermath of the hunt in a landscape scattered with bison skeletons, some, in a macabre vision, with their heads still intact (Figure 39). In this work, instead of seeing the humped backs of Rungius' grazing bison, are a series of small, dark heads, receding far into the distance. This is the kind of landscape, populated with the remains of bison, that Rungius would have witnessed on hunting trips west. I would argue, in fact, that Rungius never witnessed a live bison in the wild. According to the contents of his studio, it is clear that Rungius relied heavily on clippings of photographs of bison from books and magazines as his source material. What Rungius does, then, is revive Moser's bison skeletons, bringing flesh to these scattered bones.

Days of Bison Millions is a resurrection of sorts, in the same sense as Knight's woolly mammoth mural. And the landscape Rungius represents – the west from less than a century earlier when millions of bison roamed North America – is just as distant and inaccessible as the past Knight pictures. Yet with his paintings, Rungius seeks to bring viewers into close contact

with impressive North American megafauna, such as moose and elk. In part this is done as a preservative effort, an attempt to represent American game animals for posterity, to help prevent them from vanishing. In the case of the bison, however, Rungius is mourning the loss of the larger bison herds numbering in the millions, through his nostalgic representation. While bison are not technically extinct, they are extant, as mentioned above, only in small, managed herds, in zoos, and mostly with cattle genetics. The bison that Rungius represents, roaming the Great Plains in herds thousands strong, are as lost to time as Knight's mammoths.

On the one hand, then, Rungius' *Days of Bison Millions* mourns the loss of the bison, and shows viewers an image of what could have been preserved, perhaps as a warning to better manage wildlife policy for other species with dangerously low numbers. But on the other hand, his painting, as I have argued throughout this chapter, also naturalizes the process of eradication. *Days of Bison Millions* contains the same taxidermic accuracy as Rungius' other paintings, attempting to recreate that moment of encounter with the wild animal. Yet, the title and the eastward orientation of the bison in the foreground direct viewers to see this as a scene from the past. *Days of Bison Millions* lulls viewers into believing that bison numbers could rebound, perhaps even that they could still be found at this magnitude. By linking the bison bodies so closely with the landscape, their lives, and by extension, their deaths, are also seen as natural. The mass slaughter of the bison becomes as naturalized as the extinction of the mammoth, a model which situates even human-related causes as inevitable. Looking towards the future of bison, Rungius' vision asks viewers to imagine a future where bison conservation could be as natural as the means by which he pictures their near-extinction. *Days of Bison Millions* works within the conservation aesthetic in this way; he mourns the loss of bison, but by naturalizing their extinction, and picturing hope for a false recovery, accepts bison eradication as inevitable.

Instead of as a warning of anthropogenic near extinction, bison are pictured as a symbol of the open lands and adventurous spirit of the American west. This mythology, of flourishing and reintroduced bison, is still very present in the American imaginary, and unless shifted, could impact the practical management of bison into the future. Imagining bison as still wandering open lands of the Great Plains has a numbing effect for bison conservation.

Conclusion: Picturing De-Extinction

"When I imagine a successful de-extinction," writes Shapiro,

> I don't imagine an Asian elephant giving birth in captivity…under the close scrutiny of veterinarians and excited (and quite possibly mad) scientists. I don't imagine the spectacle of this exotic creature in a zoo enclosure, on display for the gawking eyes of children…What I do imagine is the perfect arctic scene, where mammoth (or mammoth-like) families graze the steppe tundra, sharing the frozen landscape with herds of bison, horses, and reindeer – a landscape in which mammoths are free to roam, rut, and reproduce without the need of human intervention and without fear of re-extinction.[188]

In the first quarter of the 20th century, before de-extinction was even an imagined scientific possibility, this is exactly the vision that Knight sought to bring to life for Field Museum visitors (Figure 25). He depicts the group of mammoths, grazing the steppe tundra, albeit alongside woolly rhinoceroses instead of Shapiro's imagined bison, reindeer, and horses. In the popular (and sometimes scientific) imaginary, de-extinction is a process to resurrect long extinct mammoths from flesh frozen in the permafrost, and then populate a controlled and visit-able ecosystem, like Pleistocene Park. Most often, de-extinction is not imagined to prevent the loss of critically endangered species in the now, like the pangolin or the red wolf, but instead to resurrect those lost to distant time.

[188] Shapiro, 12.

Over the last few years, in my time spent thinking about *Days of Bison Millions* and bison in general, I have made attempts to observe bison in the wild. But bison, not listed as protected by the ESA in any of their former range and managed primarily as domesticated species, are nearly impossible to find 'in the wild.' My first two attempts took me to South Dakota where I viewed the reintroduced herd at Custer State Park, but then later failed to track reintroduced bison in Buffalo Gap National Grassland. Once, on California's Catalina Island, I had the terrifying experience of coming far too close for comfort to a wallowing bull and a herd of about 50 bison after rounding a bend in a trail. Bison are not endemic to Catalina but were introduced in 1924 as a living backdrop for a film. Today, the herd has free range of the island, with their population controlled by a contraceptive program managed by the Catalina Island Conservancy.[189]

About three years ago, I learned that there was a reintroduced bison herd much closer to my home, on the Midewin National Tallgrass Prairie just outside of Joliet, IL, about 50 miles south of the city of Chicago. Midewin is a fascinating place. Named for the Anishinaabek Great Medicine society of healers that keep the world in balance, the Tallgrass Prairie is on the site of the former Joliet Arsenal. The landscape is dotted with rail tracks, light poles, and half buried bunkers that used to store explosives. When restoration of the prairie began in 1996, very little, if any, of the native seed bed remained. Bison were brought to Midewin in 2015 as part of the broader project to restore the prairie landscape. The hope is that after at least 20 years of bison grazing and wallowing, other native prairie species, both plant and animal, will be sustained. It seems like it's working. In this area, so close to the third largest city in the United States, I have

[189] "Ecological Effect of Bison on Santa Catalina," Catalina Island Conservancy, https://www.catalinaconservancy.org/index.php?s=wildlife&p=ecological_effect_of_bison, accessed on 6/25/2020

seen coyotes, bald eagles, red tailed hawks, egrets, painted turtles, common snapping turtles, crayfish, opossums, white tailed deer, wild turkeys, and countless songbirds that I can't identify.

For the last two years, I have spent almost every weekend in the spring, summer, and fall, biking around Midewin, hoping to spot the bison. I have been doing it for long enough now that I can often predict patterns in the herd movement, although sometimes, I can't find them at all. I should note, however, that these are not free roaming bison, but a closely managed herd, kept in a well fenced-in 1,200 acres. Frequently posted along the fencing are signs stating: "AREA CLOSED. BISON AREA. **KEEP OUT**. CLOSED TO ENTRY. Subject to fine, imprisonment, or both." The fences and signs are in place to protect both bison and people, and even places like Yellowstone National Park manages its bison through fencing and culling. The population sizes of bison herds need to be managed even on the largest swaths of public land because North America no longer contains enough contiguous open space to foster large bison herds. As a migratory species, they would simply run out of space before coming into conflict with farms, homes, roads, or other private properties. In Midewin, for example, the Forest Service determined that the 1,200 allotted acres will only be able to support a herd as large as 100 bison. Additionally, as described in the previous chapter, the same period that saw the destruction of the bison herds led an active warfare against one of the bison's only natural predators, the wolf. The lack of wolf packs across the Great Plains and prairie states means that human management and disease are the only things to keep bison populations in check.

Bison, however, across the prairie and plains states, are important aspects to ecological restoration. Many would argue that without bison, it would be impossible for certain landscapes to even function as prairies. But visitors to these landscapes, myself included, regularly come to view a scene that they imagine to be more like Rungius' *Days of Bison Millions* than the reality

of reintroduced bison herds (see figure 40). Due to the development of land, particularly for large scale agriculture across former prairie lands, Rungius' vision of the *Days of Bison Millions* can only be understood as an imagined scene from the past, of an animal and a habitat that no longer exists. It has more in common with Knight's mural of the woolly mammoth than it does Hornaday's bison diorama.

In 1911, a Lakota man named Olaute said, "If the buffalo where here today, I think they would be different from the buffalo of the old days, because all the natural conditions have changed."[190] In many places, like Midewin, bison are being used to help change back some of those natural conditions. But bison have also changed, through partial domestication and interbreeding with cattle. Representations like *Days of Bison Millions,* through pleas to preserve wild lands and an outright refusal to see bison as they are, deny these environmental changes. *Days of Bison Millions* holds the dialectical tension of the conservation aesthetic between seeing the need for bison conservation and seeing bison as only a symbol of the 'Old West,' the infinite megafauna of the Great Plains and a link to the primordial past. In *Days of Bison Millions*, Rungius asks viewers to meet bison as he imagined them to be, never as they are.

[190] Quoted in Zontek, 2

CHAPTER 3: *URSUS MARITIMUS:* PICTURING CLIMATE CHANGE IN HIROSHI SUGIMOTO'S *POLAR BEAR*[191]

Introduction

The first photograph I saw from Hiroshi Sugimoto's series *Dioramas* happened to be the very first image he took in the series. I was visiting MoMA with my mother on a trip home, which provided a leisurely atmosphere for an anxiety riddled grad student to meander through the galleries without a specific aim. *Polar Bear* (Figure 41) was tucked away at the top of a staircase. From a distance, it seemed the picture was simple wildlife photography – but as I moved closer, the polar bear's extreme stillness was awkward and unnatural, she appeared still beyond the camera's freezing capabilities. It was hard to decipher exactly what I was looking at. Then I slowly began to recognize the polar bear diorama from my many childhood trips to the American Museum of Natural History (AMNH).

Begun in 1976, Hiroshi Sugimoto's *Dioramas* series pictures the diorama displays at AMNH. The series has no set end date, and Sugimoto has returned to the Museum many times to add to the work, most recently in 2012. The images' subjects range from mounted displays in the Akeley Hall of African Mammals, like the mountain gorilla habitat group, to scenes from the lives of early human relatives, such as Cro-Magnon, to underwater scenes, and even to dioramas of events like the bombing of Hiroshima. Of the series and his first visit to the AMNH as a tourist in 1974, Sugimoto says, "I made a curious discovery while at the exhibition of animal dioramas: the stuffed animals positioned before painted backdrops looked utterly fake, yet by taking a quick peek with one eye closed, all perspective vanished, and suddenly they looked very

[191] Material from this chapter appears in Jessica Landau, "Preserving the (uncanny) End of Nature: Hiroshi Sugimoto's *Dioramas*," *Antennae: Exposing Animals*, no. 40 (Summer 2017): 20-30

real. I had found a way to see the world as a camera does. However fake the subject, once photographed, it's as good as real."[192]

And it is true, at first glance, it appears that these are wildlife photographs, live animals frozen in time by the camera, not the taxidermist. Looking at *Polar Bear*, for instance, the painted background, upon being photographed, becomes atmospheric, extending infinitely away, no longer appearing as a decorated wall in the back of a diorama but as the real Arctic icescape. The contrast created by the photograph's black and white film also places a heaviness back into the bear's footsteps, making her body appear full and live rather than as mounted skin stretched across a manikin. It is as if her heavy footfalls have been halted only by the camera's shutter. Sugimoto's photograph of the *Gemsbok* diorama (Figure 42) has a similar effect; the eye contact each animal makes with the viewer creates a startled momentariness that seems captured by a camera, not frozen by the taxidermist. The diorama frames and glass barrier separating the display from viewers cannot be seen, making it appear that these animals have been confronted in the 'wild,' whatever the viewer's conceptions of this wilderness may be.

This trick of light lasts only an instant, however. Quickly the viewer notices that the polar bear is in fact too stiff to be a living creature, or that the background of the Gemsbok is too smoky and ethereal to be the actual Southern African plains, each blade of grass and painted tree leaf too perfect. The photographs appear to be testing reality, playing with its representation. As Sugimoto himself explains, "The photographs present a counterfeit reality that tricks the mind."[193] For Sugimoto, the *Dioramas* series reveals truths about the nature of photography, reality, and human understanding of nature itself. Like many photographers and taxidermists

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[192] Hiroshi Sugimoto, "Diorama," https://www.sugimotohiroshi.com/new-page-54, accessed 6/25/2020

[193] Hiroshi Sugimoto, *Hiroshi Sugimoto: Dioramas*, (Damiani and Mutsumoto Editions, 2014): 3.

before him, including Carl Akeley,[194] Sugimoto saw the connection between the ability of both photography and taxidermy to stop time, freeze moments indefinitely, and make indexical truth claims through the connection to a once living animal. But more important for my purposes here, Sugimoto also sees in the series a potential to unveil the cultural construction of nature, especially within the natural history museum. By removing the museum artifice from the framing of the photograph, Sugimoto sees his images as alerting viewers to the ongoing destruction of the habitats depicted within the dioramas on the one hand, and as potential imaginings of a future without such human disruption on the other. Sugimoto's essay that accompanies the catalog of the series is far more than an artist statement, and functions as a sort of manifesto about his views on nature and representation of the natural world. As this essay communicates the artist's key beliefs on nature and conservation, it serves as a crucial point of departure for my interpretation of the photographs as well as their role as part of the conservation aesthetic. In it he writes: "natural habitats like these are rapidly disappearing from the face of the earth because of the dramatic changes wrought by humankind since the industrial revolution of the nineteenth century. My daydreams and my enthusiasm retreated further back – to nature prior to the advent of humanity, to untouched 'natural' nature."[195] He continues on to describe how these visions of "untouched nature," provide an almost hopeful look at a future without people, where nature is fully able to recover.

Few habitats are disappearing as rapidly as the one depicted in his first image from the series, *Polar Bear*. In 1976, when Sugimoto took this image, melting sea ice was not the urgent environmental risk it is today, but I believe, especially considering the artist's focus on habitat destruction, that climate change, especially its effects on Arctic habitats and polar bears, needs to

[194] See Mark Alvey, "The Cinema as Taxidermy: Carl Akeley and the Preservative Obsession." *Framework: The Journal of Cinema and Media*, 48, no. 1, (Spring 2007): 23-45
[195] Sugimoto, *Dioramas*, 5.

be the primary lens through which we read *Polar Bear* now. Instead of thinking about Sugimoto's photograph primarily through the historical contextualization of the 1970s when it was created, I pull the image from its place in the past in order to more fully expand on its meaning making potential for viewers of this present moment. Effectively producing an interpretation that is, then, intentionally anachronistic, *Polar Bear* has gathered meaning as the lives of the animals it depicts have changed drastically since it was made. This chapter demonstrates that while Sugimoto's writing upholds the mythologies of pristine nature and the potential for a post-human recovery, the photographs, and *Polar Bear* in particular, undo them. By viewing the photograph through a lens of the ecological uncanny as well as taking a closer look at the ecology it purports to represent, I seek to reveal the ways that the photograph works against the nature/culture binary that Sugimoto sets out to establish through his series. *Polar Bear* reveals not the post-human daydream Sugimoto describes, but rather a landscape that has, quite possibly, been decimated beyond repair.

Environmental Destruction and *Dioramas*

In a brief article, poet and art critic John Yau discusses the ways in which *Dioramas* is as much about the nature of photography as it is about the animals represented.[196] Yau interprets Sugimoto's photographs as a challenge to a time-based reading of photography, as theorized by figures such as Roland Barthes, who famously argued that photography gestures toward death, both in terms of the depicted subject's past as well as the viewer's future death. Barthes describes this temporal ordering as the *this has been* and the *this will be* of photography.[197] Yau, however, claims that Sugimoto's images close the gap Barthes articulated between the subject's

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[196] John Yau, "Time Halted: The Photographs of Hiroshi Sugimoto," *The American Poetry Review* 33, no. 5 (September/October 2004): 11-16.
[197] Roland Barthes, *Camera Lucida: Reflections on Photography,* (New York: Hill & Wang, 1980).

past and the viewer's future past. Referring to the museum dioramas themselves as three-dimensional photographs, Yau points to the fact that, "while a photograph halts time, Sugimoto photographs time halted, even if it is a moment that occurred many hundreds of centuries ago, before the camera existed."[198] Sugimoto's camera, in other words, cannot capture the viewer's future past because it is photographing an already perpetually frozen and therefore ongoing moment.

Yau is not alone in this interpretation; Sugimoto himself understands his *Dioramas* series as a way to question the traditionally accepted connection between photography and death. Describing his thought process with regard to this work, he writes: "I realized that I too could bring time to a stop. My camera could stop time in the dioramas – where time had already been halted once – for a second time. Might killing something that was already dead bring it back to life?"[199] Sugimoto describes further how he was struck by the representation of death in AMNH's dioramas. In fact he says he was "overwhelmed by the fragility of existence that is captured. Being models of nature, dioramas include many of the world's constituent parts. The only thing absent is life itself."[200] Later in the essay, the photographer writes about his emotional state during the 20 minute exposure to create *Polar Bear*, where he longed for the bear to come back to life, even as he acknowledged how dangerous standing that close to an actual live polar bear would be. After viewing the resulting image however, Sugimoto declared that his "life as an artist begun the moment I saw with my own eyes that I had succeeded in bringing the bear back to life on film."[201] In a sense, by photographing the already dead and taxidermically frozen bear, Sugimoto rejects both the *this has been* and *this will be* of Barthes' conception of photography.

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[198] Yau, 11.
[199] Sugimoto, *Dioramas,* 3.
[200] Ibid, 3.
[201] Ibid, 3-4.

By picturing the frozen moment, the photograph does not re-freeze it, but reanimates it, creating, as Sugimoto understands it, a conditional *this could be*.

For Yau, the power of the *Dioramas* series comes from this strange reanimation. He describes these otherwise "perfect corpses, bodies that have been vacated," as returning to life through the process of being photographed; they live now, Yau says, in a "self-contained, self-sustaining world that never acknowledges our existence."[202] The problem here, however, is that taxidermy animals are not corpses. Taxidermy, like many other art forms, requires animal materials in its creation, but the final result is not itself an animal corpse. They are treated skins mounted over a form in the shape of a living animal, combined with glass eyes, lead or plastic noses and tongues, and cast teeth to complete the finished and lively look. And while death is certainly required to obtain the hides used to mount a taxidermy specimen, the resulting object has been so taken apart, had so many pieces removed, and been so heavily treated with chemicals, that it would be inaccurate to call the limited animal remains anything close to a corpse. The difference between taxidermy and other media, including the silver gelatin photograph, is that taxidermy is more upfront about the animal costs of its output.[203] Here I am referring not only to the way in which Sugimoto, channeling Barthes, references the second death of the animals he pictures, but also the livestock bones, skin, and connective tissue which are boiled down to produce the gelatin used to make his photographic prints in the first place.[204] Shiras' photograph of a trapped wolf also makes this unfortunate connection between animal photography and animal death, as discussed in chapter 1. In this way, inextricably linked in their animal materiality, taxidermy and photography are ghostly traces of their once living referents.

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[202] Yau, 12.
[203] Giovanni Aloi, "Animal Studies and Art: Elephants in the Room," *Antennae*, 'Beyond Animal Studies,' (March 2015): 2-30
[204] Ibid, 11.

Sugimoto, of course, is not the first artist or scholar to understand this entrenched connection between taxidermy and photography. Many historians of photography have linked the early history of photography to that of hunting, as I briefly discussed in Chapter 1.[205] 20th-century taxidermist Carl Akeley, who created many of the AMNH dioramas photographed by Sugimoto, also saw film, photography, and taxidermy as the best methods to preserve quickly disappearing habitats and wildlife. Akeley went to great lengths, like Shiras, to photograph animals unaware of his human presence. When working in Africa, he even built a photographic blind in the form of a rhino as a way of trying to hide.[206] Such photographs then became essential resource materials for taxidermists interested in recreating animal forms and motion. And certainly Akeley, like Shiras before him, saw both taxidermy and photography as important tools for preserving representative individuals from dwindling animal populations that may, in the near future, no longer exist in the wild.

Additionally, as Donna Haraway describes in her seminal article "Teddy Bear Patriarchy," taxidermy dioramas not only preserved wild animals for posterity, but also functioned as an aid in developing an American identity based on Teddy Roosevelt's Strenuous Life (discussed previously in chapters 1 and 2). According to Haraway, the animal in the diorama recreates the moment of encounter between wild animal and masculinist hunter for the museum visitor, allowing viewers to experience virtual elements of the Strenuous Life without ever having to leave major urban centers.[207] The diorama displays create a virtual hunt, by bringing viewers into close contact with the taxidermy animal in a setting resembling its natural habitat. This moment can be seen in the way that many of the taxidermy animals acknowledge

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[205] See also Brian Coe and Paul Gates, *The Snapshot Photograph: The Rise of Popular Photography 1888-1939,* (London: Ash & Grant, 1977).
[206] Alvey, 31.
[207] Donna Haraway, "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936," *Social Text*, no. 11, (Winter 1984-1985): 20-64.

the viewer. For example, the gemsbok, also photographed by Sugimoto (Figure 42), look like they have just raised their heads in alarm at the viewers' footfalls entering the scene. The Field Museum's Mark Alvey sees expedition photographs and dioramas as occupying this similar role: "A habitat diorama, like an expedition photograph, has a preservative aspect as well as an evidentiary one, but its evidentiary nature is more than just the indexical 'record' of the particular skins collected on particular dates in a particular locality; it is the transcendent, almost mystical, encounter with the 'real' animal."[208]

Indeed, the ability to recreate this mystical encounter becomes even more pressing for animals whose wild populations are drastically decreasing, but Sugimoto is interested in taxidermy dioramas not only for their eerie effects of reanimation, but also for how they allow him to interrogate the space of natural history and the construction of nature in the popular imaginary, including the masculinist imperialism described by Haraway. In other words, many of the landscapes depicted in the dioramas photographed by Sugimoto are under threat, and perhaps no longer exist as they were pictured by the taxidermists and exhibition fabricators in the first half of the 20th century.

This feeling of loss is identified by natural history museums as well. For example, the marketing materials from a fundraising campaign at Chicago's Field Museum that sought to raise money for the restoration of the museum's striped hyena display, references the time capsule quality of habitat dioramas. According to the museum, dioramas present a picture of a habitat as it existed at the moment of the diorama's creation, providing conservation scientists of the present and future a baseline to understand ecosystem change and habitat and species loss over

[208] Alvey, 41.

time.[209] To some extent this line of reasoning is true—dioramas do provide a kind of image of past habitats, but Sugimoto's work questions the objective truth claims made by habitat dioramas, a point Sugimoto's own writing again makes clear. "As I took my photographs," he writes, "I was overcome by the desire to depict natural history as a false image with all the illusion of realism."[210] Much like a photograph, a diorama—despite its evidentiary appearance—can (and does) lie. It is after all a construction built by multiple hands and not the actual physical habitat depicted. Dioramas are not snapshots, per se, of a specific ecosystem at a specific moment in time, but rather an image of the museum's understanding of that place at a specific moment in time.

Dioramas, by appearing first as wildlife photography, highlights the unreality of the virtual encounter created by the habitat diorama. This attempt, to illustrate the fallacy of nature created by the natural history museum, is one side of the dichotomy that places *Polar Bear* under the lens of the conservation aesthetic. Sugimoto's critique of the diorama's constructed vision of the natural world relies on what I consider to be two problematic fallacies, however. First, his work asserts too firm of a dichotomy between nature and culture, rendering anything potentially human made as artificial and unnatural, or as he calls it "un-nature."[211] Second, Sugimoto throughout his *Dioramas* series clings very resolutely, and I would say also problematically, to the hope of a recovered planet in a post-human future. Discussing the metaphor of *Dioramas* as daydreams, Sugimoto writes:

> If humans are just one of many animals living in the natural world, then the island of Manhattan represents the most extreme example of artificial nature that this particular animal has created. In the middle of this island sits the pseudo-natural environment of Central Park, with the American Museum of Natural History

[209] The Field Museum, "Project Hyena Diorama," January 26, 2016, https://www.fieldmuseum.org/blog/project-hyena-diorama
[210] Sugimoto, 5.
[211] Ibid, 5.

> snuggled up against its flank. Inveterate daydreamer that I am, in my mind's eye I picture the museum's roof collapsing upon moldering dioramas, everything ensnared by vines and overgrown with wild grass. Civilization has come to an end.[212]

Sugimoto's impulse to classify places like Central Park as pseudo-natural reveals the way in which he imagines wilderness as an ideal space, an idea critiqued throughout this dissertation, and by scholars such as William Cronon.[213] The idea that pristine wildernesses exist, untouched by humanity decries the natural spaces that flourish in places like New York City, but also denies the thousands of years of human histories that have shaped the very place the cultural imaginary believes to be untouched by humanity. In fact, contrary to Sugimoto's interpretation, taxidermy dioramas do not necessarily help construct "un-natural" spaces, but rather, reify the cultural belief in distant and pristine wildernesses. Early natural history museum directors believed that bringing these distant landscapes and animals into close contact with museum visitors would aid conservation efforts. The hope was that seeing these animals up close would educate the public and help build empathy for places and creatures otherwise out of sight and mind of the American public.[214] The museum dioramas reify the fiction that the spaces they depict exist as pristine landscapes, untouched by humanity. Nevertheless, Sugimoto's observation that Manhattan is "artificial nature" echoes some of what American environmentalist Bill McKibben describes in his well-known book, *The End of Nature*. McKibben describes the need to hold on to the mythology of a pure wilderness, untouched by humans in order to define humanity as something outside it. He writes: "we still feel the need for pristine places, places substantially *unaltered* by

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[212] Ibid, 5.

[213] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature,* edited by William Cronon, 69-90. New York: W.W. North & Company, Inc., 1996: 69-90

[214] Karen A Rader and Victoria E. M. Cain, "The Drama of the Diorama, 1910-1935," *Life on Display: Revolutionizing U.S. Museums of Science and Natural History in the Twentieth Century*, (Chicago: The University of Chicago Press, 2014), 55.

man. Even if we do not visit them, they matter to us. We need to know that though we are surrounded by buildings, there are vast places where the world goes on as it always has."[215] Conceiving "nature" as such can draw attention to the destructive forces colonialist and capitalist societies have placed on the planet, yet it comes at a risk: holding on to the mythology of pristine nature risks recreating the kind of frontier thinking that led to beliefs like Roosevelt's Strenuous Life. The idea of pristine nature, untouched by humanity, denies the long and intertwined histories between indigenous people and their land in North America and establishes nature as something separate from humanity. The nature/culture binary encourages the thinking that nature is, at worst, something to be dominated or at best, something distant and separate from culture and human influence that is not a part of our everyday lives. While designated wilderness areas certainly do need to be preserved, nature cannot and should not be considered only as a lost wild landscape, dynamic and shifting, but separate from urban areas. Nature is not some wild, out-there place that needs only to be conquered or conserved, but is something humans are entrenched in, in the very biomes of our bodies.

So wilderness is not some pristine "other" space, but equally problematic in Sugimoto's daydream is that "civilization has come to an end"—an idea that for him signals a hopeful emphasis on the recovery of nature in an imagined post-human world. "The museum's roof collapsing upon moldering dioramas," he wistfully imagines. And in some sense, his *Dioramas* photographs, in the way they remove the museological framing of the dioramas, successfully visualize this fantasy. The habitats in his images, once photographed, become detached from both the specific time period in which they were created as well as "humanity" more generally. Viewers, already unsure of the liveliness of the plants and animals they see in Sugimoto's pictures, or of their geographic location, are also uncertain of the photograph's when. Are these

[215] Bill McKibben, *The End of Nature*, (New York: Random House Trade Paperbacks, 2006), 47.

contemporary images? Are they historical? Are they an imagined future's past? Many of the photos from the series feel like wildlife photography, which endows them with a kind of presentness, but, as they reveal themselves to be taxidermy dioramas, they become simultaneously grounded in the past. Yau credits this feeling of timelessness to the fact Sugimoto, "approaches photography as something that is no longer bound by the constraints of time and space that we have assumed are inherent to the camera."[216]

Though I disagree with Sugimoto's expressed focus on the potential for nature's recovery in a post-human world, Yau's analysis of Sugimoto's sense of timelessness is essential for my reading of *Polar Bear* in terms not only of the past but also our current climate crisis. Speaking of his experience photographing *Dioramas*, Sugimoto writes: "Photographing dioramas that recreated landscapes prior to human colonization, I took great comfort from the thought that nature would probably need only a few thousand years to revert to its pre-human state should the human race ever be wiped out."[217] The hope that nature will return after human life ends is seductive, and often referenced in cases as wide ranging as stories about increased wildlife and decreased fog in major cities during COVID-19 stay at home orders, the wolves flourishing in the Chernobyl containment zone, fish and coral returning to Bikini Atoll, wildlife thriving on Vieques, or even the prairie reclaiming the former site of the Joliet Arsenal at Midewin National Tallgrass Prairie, discussed briefly in Chapter 2. Anna Tsing similarly finds hope for humanity and the planet in the ruins of capitalism.[218] However, historians of the environment, such as Kate Brown, warn against putting too much faith in these redemptive tales. Writing about the Chernobyl containment zone specifically, Brown states: "The people who argue that plants and

[216] Yau, 11.
[217] Sugimoto, 5.
[218] Anna Tsing, *The Mushroom at the End of the World: on the Possibility of Life in Capitalist Ruin*, (Princeton: Princeton University Press, 2015)

animals in the Chernobyl Zone are thriving are wrong, but they are accurate in asserting that nature can help correct man-made disasters. That doesn't mean humans can step away and let nature do its work. Contaminated spaces need curation."[219]

When Sugimoto dreams about nature's return, he isn't speaking primarily about contaminated spaces or disaster zones, but rather the slower destruction of ecosystems that happens through industrialization and colonization. Nevertheless, the sentiment that humans cannot step away and let nature do its work remains. *Polar Bear* exemplifies this perfectly as the Arctic ecosystem is being ravaged by anthropogenic climate change and the bioaccumulation of toxins and microplastics. The Arctic simply will not be able to recover on its own after humans because it will not survive humanity. Here is the conservation aesthetic at work. Sugimoto seeks to promote conservation aims while simultaneously upholding a binary between nature and culture that supports mythologies of wilderness and the post-human recovery of nature.

The Disappearing Arctic and Polar Bears as Climate Symbols

The belief that without human interference, ecosystems would recover on their own is especially dangerous for the Arctic. The Arctic is warming at a rate approximately twice the global average, and this temperature rise, including the resulting melting of sea ice—has already been profoundly detrimental to Arctic ecosystems. Future predictions are even more bleak: it is expected, for instance, that Arctic summers will be entirely free of sea ice by the mid-21st century, which among other things likely means extinction for polar bears.[220] Polar bears, *Ursus maritimus,* are marine mammals, that spend the majority of their time on sea ice, using it to hunt,

[219] Kate Brown, *Manual for Survival: A Chernobyl Guide to the Future*, (New York: W.W. Norton & Company, 2019), 306.
[220] *Fourth National Climate Assessment, Volume II: Impacts, Risk, and Adaptation in the United States,* Report-in-Brief, US Global Change Research Program, 2018, 154.

travel, and sometimes as sites for maternity dens. Ringed and bearded seals are their primary prey, though they also prey on other pinnipeds, such as ribbon, spotted, or harp seals. The AMNH diorama pictured in Sugimoto's *Polar Bear*, shows a bear preying on a ribbon seal. These seals use sea ice as haul-out platforms to give birth, nurse pups, molt, and simply rest. Polar bears most often stalk seals at their breathing holes, waiting for them to emerge before swiftly pouncing and pulling them out of the frozen waters. Adult bears consume the blubber almost exclusively, as they are in need of a high fat diet to keep their own fat reserves high to combat the Arctic's extreme cold. These fat reserves are essential during the summer months when all bears fast because summer sea ice is limited and they cannot hunt as effectively. And for denning females, fat reserves are even more important: mothers do not hunt when nurturing their young; instead, for approximately 8 months while sheltering in a maternity den, female polar bears rely solely on fat reserves to support both themselves and their cubs.[221]

As sea ice melts, and as ice floes reform later and later into the year, bears are losing the ice pack they depend on for hunting. On average, ice breakup is happening 7-8 days earlier each decade, reducing the number of hunting days for bears. In some places, it is occurring two and a half weeks earlier than in previous decades.[222] Scientists estimate that increased open Arctic waters will only benefit harbor seals, and that populations of ringed seals – bears' preferred food – will be the most negatively affected.[223] Most polar bears can handle a single short ice season, or one season with limited prey availability, but as these trends become the norm, it is hard to imagine anything but increased pressure on bear populations. Moreover, as fertile hunting ice pack decreases, usually solitary polar bears are forced into competition with other bears in

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[221] Ian Stirling and Claire L. Parkinson, "Possible Effects of Climate Warming on Selected Populations of Polar Bears (Ursus maritimus) in the Canadian Arctic," *Arctic* vol. 59, no. 3 (September 2006), 266.
[222] Andrew E. Derocher, Nicholas J. Lunn, and Ian Stirling, "Polar Bears in a Warming Climate," *Integrative and Comparative Biology,* vol. 44, issue 2 (2014), 165.
[223] Derocher, Lunn, and Stirling, 168.

smaller areas. Recent years have also witnessed a stark increase of polar bear sightings by people inland, as bears shift further away from the coast to find food. Ever resourceful, bears have been forced to scavenge human garbage, berries, and other vegetation, and hunt birds, muskox, caribou, and small mammals further and further inland as the availability of seal prey decreases. This brings polar bears into increased conflict with humans, a fact that has been misinterpreted by governing authorities as an indication of population increase, which in turn has led to increased harvests on bears, threatening their population numbers further.[224]

In addition to decreased sea ice, polar bears are also combating the ill effects of the bioaccumulation of toxins plaguing most ocean ecosystems. These contaminants, including persistent organic pollutants (POPs) such as PCBs and DDT; fire retardants; heavy metals such as mercury, lead, and cadmium; and radionuclides in the form of cesium, polonium, and uranium, enter Arctic ecosystems from distant waste runoffs.[225] POPs come from a number of sources, including pesticides, plastics, marine paint, coolants, and lubricants, among other sources. Heavy metals, naturally occurring in rocks and soil, are released in the environment from mining, smelting, and burning fossil fuels. Radionuclides are also naturally occurring but are released from the testing of nuclear weapons, the dumping of nuclear waste, and nuclear accidents. While some of these toxins are naturally occurring in the Arctic and are released into the environment through practices like mining, the majority are not local and find their way to the Arctic on ocean currents or in animals. These contaminants cause a number of neurological and physiological problems in infected animals and the humans who consume them.[226] Polar bears, as an apex predator, are especially susceptible. When an animal consumes another animal,

[224] Stirling and Parkinson, 263.

[225] Martina Tyrrell, "Making Sense of Contaminants: A Case Study of Arviat, Nunavut," *Arctic* 59, no. 4 (December 2006), 371.

[226] Tyrrell, 371. In the Arctic, the majority of the people who consume these toxin in wild food sources are indigenous.

they are also consuming all of that animal's toxins. Thus, as this goes further up into higher trophic levels, otherwise known as the food web, contamination increases. Additionally, the young of any species are at great risk because toxins are passed to an infant through breast milk, resulting in slowed growth rates and impaired functioning.[227] PCBs, moreover, are known to cause infertility in male polar bears, resulting in lower birth rates.[228]

It is difficult to get an accurate count of polar bear population numbers in part because they cover a lot of ground, walking and swimming between ice floes, which are also moving. The best estimates today, however, put their population at 21,500-25,00 individuals.[229] According to recent scientific data, polar bear numbers in the United States are expected to decrease by 30% by 2050.[230] In response to this projected decrease, polar bears were listed as threatened under the Endangered Species Act (ESA) in 2008. But the US Fish & Wildlife Service (USFWS) faces a serious challenge when trying to enforce ESA protections of polar bears. That is, the USFWS is charged with protecting polar bears' critical habitat designation, but the habitat designated as critical is disappearing, and doing so because of anthropogenic climate change on a global scale. In no way could USFWS dictate energy policy, control emissions, or take other action that could help slow the rate of sea ice melt impacting polar bear habitat.[231] In fact, when announcing the decision to list the polar bear in 2008, then Secretary of the Interior

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[227] Ibid, 372.

[228] Viola Pavlova, et al, "Allee effect in polar bears: a potential consequence of polychlorinated biphenyl contamination," *Proceedings of the Royal Society B* (2016). Even though PCBs were banned in 1979, the contaminants persist in ecosystems for decades and are still affecting polar bear birth rates, and likely had a great impact on birth rates in the 1990s especially.

[229] Derocher, Lunn, and Stirling, 163.

[230] Lindsay Card, "Polar Bears: Climate Refugees, Expanding and Protecting Designated Critical Habitat for Polar Bears Using the Endangered Species Act," 170.

[231] Lindsay Card, 175.

Dirk Kempthorne stated that the species listing would be intentionally limited so that it "wasn't abused to make global warming policies."[232]

During the late 20th and early 21st centuries, polar bears came to stand in symbolically for climate change writ large. Greenpeace activists frequently dress in polar bear suits at protests to limit Arctic oil drilling and many other environmentalist groups share photographs of shockingly thin polar bears, adrift on ice floes, unable to eat because of the degradation of their hunting habitats. Subhankar Banerjee's 2001 photograph, *Polar Bear on Bernard Harbor (Oil and The Caribou, Barter Island)*, (Figure 43) became symbolic of the potential loss of animal life and habitat in the 2003 congressional debate about whether or not to open the Arctic National Wildlife Refuge (ANWR) for oil drilling. Senator Barbara Boxer, (D, CA), used the photograph as visual evidence of what needed to be protected in ANWR, and urged her colleagues to attend an upcoming exhibition of Banerjee's work at the Smithsonian Institution's National Museum of Natural History.[233]

Boxer's amendment to block the Bush administration's proposal to drill for oil in ANWR passed, but the Smithsonian decided to move Banerjee's exhibition to an out of the way gallery and removed all of his explanatory captions from the exhibition. According to cultural historian Finis Dunaway, the exhibition was censored because the photographs, like of the polar bear, "gesture toward an alternative way of viewing the region: not as separate or remote, a faraway land disconnected from the rest of the United States, but rather a space vitally connected to national and even global ecosystems, a landscape valued not only for its special and unique qualities but also because of its crucial links to places closer to home."[234] In other words,

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[232] Quoted in Card, 175.
[233] Finis Dunaway, "Reframing the Last Frontier: Subhankar Banerjee and the Visual Politics of the Arctic National Wildlife Refuge," (Tuscaloosa: University of Alabama Press, 2009), 254.
[234] Ibid, 255.

Banerjee's captions emphasized interconnectedness. For example, many of Banerjee's images focused on the migration of animals, especially migratory birds, linking the Arctic to the distant landscapes they traveled through on their journey north. Without the captions that describe the lengthy migration path of birds such as the buff-breasted sandpiper, viewers would not readily see the connection the bird's flight path makes between Argentina and the Arctic, for example.[235] Another photograph shows dwarf birch and golden willow trees ablaze in autumn color, an image that appears simply as a beautiful landscape. The caption, however, explains that these tree species are new transplants to the Arctic, moving northward as temperatures gradually rise. These trees cannot be seen as part of a pristine and untouched landscape, but instead are representative of the anthropogenic forces changing environments that may at first appear distant.[236]

Banerjee's combinations of caption and image reminds viewers of the ways in which even seemingly distant landscapes are enmeshed in global human histories. His polar bear photograph is no exception. Banerjee's text about this image explains that this bear is moving across the frame of the photograph towards a whale carcass, left behind by Inupiat hunters. This carcass was also scavenged by grizzlies, arctic foxes, and gulls, again, a point that demonstrates the breadth and interconnectedness of the Arctic ecology. Dunaway interprets this as "turning the image of the lone animal roaming the landscape into a broader vision of the regional ecology."[237] Though whale carcasses have only recently become a staple of the polar bear diet – an effect of the necessity to find alternative food sources as access to seal hunting decreases with melting sea ice – Dunaway's larger point about interconnection remains, or perhaps is even amplified.

[235] Ibid, 269.
[236] Ibid, 263.
[237] Ibid, 266.

Looking at Banerjee's polar bear image in relation to Sugimoto's further highlights the changing patterns of polar bear diets. The diorama photographed by Sugimoto was installed in 1966 after the AMNH's Hall of Ocean Life, originally opened in 1933, underwent a major renovation from 1962-1969, including this inclusion of a polar bear, a species previously absent from the Hall.[238] The habitat shows the polar bear just as it has pulled a ribbon seal out of a breathing hole. Blood pools under the seal's nose, so viewers know the fatal blow has already been struck, and the bear appears to be stepping towards its prey, we assume, in order to consume it. Banerjee, on the other hand, shows his polar bear in full stride, demonstrative, perhaps, of the greater distances bears now need to travel in order to locate food sources. The photograph displays the changes in bears' food sources, including the increasing reliance on scavenging from human waste. The bear is reflected almost perfectly in the watery pool that sits stilled alongside the its path, reminding viewers of the rising temperatures that melt the ice bears rely on to hunt. The landscape depicted here is not a frozen one, but a melting one – as the bear is surrounded by slushy pools and even its coat appears to be dripping and wet. Additionally, its reflection in the watery pool it walks by is not a perfect one, with its feet and back cut off from view, creating a fractured image that is prescient of its impending species-scale demise.

As a diorama, the polar bear display at AMNH can be somewhat misleading. Dioramas are durational in the sense that they appear to depict continuing or ongoing images of the natural world, as if the represented scene has been plucked from the wild and placed within the museum for visitors to see up close. In part this is created, as discussed earlier, by the indexical qualities of the animal skins used in the taxidermy mounts as well as the lifelike quality invoked by the taxidermy itself. The 1966 remodel of the polar bear diorama also sought to create a lifelike quality by presenting the polar bear as a predator. This differed from the first polar bear diorama

[238] Email from Mai Reitmeyer, Sr. Research Services Librarian, American Museum of Natural History, 5/28/2020.

at AMNH from 1922, which was housed not in the Hall of Ocean Life, but with the North American Mammals. In this display, two almost friendly appearing adult polar bears and one cub roamed the scene. Though adult bears are solitary creatures, the Museum displayed a male and female together, one lounging casually on its side, with the cub, the other stepping towards the viewer. The bears can be seen photographed in front of adoring children in Figures 44 and 45. Here, the bears look more like fluffy playthings than dangerous predators, and indeed the image of the polar bear as fluffy and cuddly is still present in the American imaginary; just think of the polar bear displayed in Coca Cola advertisements and Christmas decorations. The bear's ability to draw on public sympathy in PSA's for climate change further illustrates the longevity of this image of the polar bear as soft and friendly.

But this cuddly and charismatic polar bear is not the one depicted by Sugimoto. The 1966 diorama, the one Sugimoto photographed, displays the bear as a solitary predator with a pool of artificial blood forming beneath the seal's nose. Tough, remote, powerful—these are the kinds of adjectives one might use to describe this bear. Yet even as early as 1966, this bear, if still in the wild, would have been experiencing the ill effects of toxin bioaccumulation and climate change, as contaminants such as POPs and heavy metals were already in marine food webs. By photographing the diorama, Sugimoto challenges the vision of the natural world that is constructed by the diorama scene. By making the viewer question if the scene is 'real' or not, viewers continue to question the reality presented to them by the diorama even after they realize its taxidermic qualities. The diorama is a re-creation of the Arctic ecosystem, a construction of it, and not, if you will, a snapshot of the lived experience of contemporary polar bears. The world that the diorama is trying to picture no longer exists outside of the museum and will not recover from the devastation of climate change. Once the diorama is photographed, "halted" as Sugimoto

describes it, the scene becomes more clearly one of the past and participates less in the present. By photographing the diorama of polar bear predation on a ribbon seal, the diorama loses its sense of timelessness. This is not just because of Barthes' *this has been* of photography, but also because of the physical changes and irreparable damage experienced by Arctic ecosystems and availability of traditional polar bear food sources. Because of the changes forced on Arctic ecosystems by melting sea ice and toxin bioaccumulation, polar bear predation on ribbon seals in a fully frozen seascape is no longer an instant frozen in perpetuity, but a frozen moment from the past. More probable now are scenes like the polar bear photographed by Banerjee, forced to scavenge as their hunting habitat melts around them. The black and white photograph projects a mournful quality, a sense of loss, and the idea that what is displayed by the diorama will soon only be observable in taxidermic form.

Almost certainly Sugimoto was not thinking about climate change when he photographed *Polar Bear* in 1976, though his focus on picturing the cultural acceptance of the destruction of nature likely stemmed from the increased cultural awareness of environmental issues in the 1960s and 70s. Many scholars place the beginning of the contemporary American Environmentalist movement in the United States at the publication of Rachel Carson's *Silent Spring* in 1962. This, of course, wasn't an isolated event. The Wilderness Act was passed in 1964 and the first Earth Day founded in 1970. And the ESA, though not invoked to protect polar bears until much later, was passed in 1973. The same year, the United States also entered into an international agreement with the other Arctic states to protect polar bears. Signed in Oslo by the governments of Canada, Denmark, Norway, USSR and the United States, the 1973 Agreement on the Conservation of Polar Bears, consigned all 5 nations to "take appropriate action to protect the ecosystems of which polar bears are a part, with special attention to habitat components such

as denning and feeding sites and migration patterns."[239] As has already been noted, though, the factors causing the most harmful conditions to polar bear denning, feeding sites and migration patterns are not controllable within their ecosystems. Rather, the rising global temperatures that cause melting sea ice, later ice formation, and soon to be ice free summers in the Arctic, are created by the global reliance on fossil fuel consumption. Ecosystem conditions on which polar bears depend cannot be protected solely by setting aside spaces in which polar bears live, breed, and hunt, but can only be protected through extreme action to curb carbon emissions and slow the steady rate of climate change.

In some sense, then, Sugimoto was correct in lamenting the rapid rate at which ecosystems are being destroyed; as has been explained, the Arctic in particular is disappearing at an alarming rate. And, in the way that Banerjee establishes connections between the seemingly distant Arctic and viewers' daily lives, the Arctic is becoming what Sugimoto calls "un-nature. The rate at which the Arctic is changing does seem to be incredibly unnatural. Due to pressures originating from outside the region, such as pollutants and increased carbon emissions, the polar landscape is slowly becoming unrecognizable as it no longer maintains Arctic conditions. Nevertheless, Sugimoto's reliance on the myth that these spaces can recover if left to themselves is a dangerous one. The Arctic landscape, slowly ravaged by climate change, will never again be the image pictured by Sugimoto in *Polar Bear*. Bears are losing the multi-year pack ice depicted in the background of Sugimoto's photograph as the Arctic is becoming more permanently the melting pools shown by Banerjee. Most unfortunately for the bears who call that landscape home, the timeless quality of Sugimoto's photograph cannot project into the future.

[239] "Article II," *Agreement on the Conservation of Polar Bears*, Oslo, 15 November 1973.

The Challenges of Picturing a Changing Climate

Timothy Morton identifies material that will far outlast its cultural use, material such as Styrofoam and plutonium, as hyperobjects.[240] Dipesh Chakrabarty borrows this term to explain climate change itself—a process which will far outlast the conditions that created it.[241] The scale of the hyperobject's temporal ordering—that is, it exists as something so large and long lasting that it lives on past the time of its own usefulness—mirrors the scale of what might be called the climate's unrepresentability. In other words, climate, and therefore climate change, are objects too big and too multifaceted to picture. In fact, even discursively, climate change is often only discussed by its symptoms, such as rising temperatures, increased acidity of oceans, and increased major weather events. As Chakrabarty describes, climate change can be especially difficult to discuss because its anthropogenic causes mean that humanity is operating on a geologic scale, and this is incommensurate with the writing of history.[242] This problem of unrepresentability is why, in part, symbols like polar bears have come to stand in for climate writ large, since symptoms or victims of climate are easier to fathom.

As art historian Emily Eliza Scott notes: "one of the key representational challenges that climate change poses is how to maintain a degree of resolution fine enough to capture interrelations that are dispersed across time and space, and are often radically asymmetrical in nature."[243] Posing a solution for the problem she identifies, Scott calls for images of climate change that "engage multiple, ultimately incommensurable scales and registers."[244] Scott sees

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[240] Timothy Morton, *The Ecological Thought,* (Cambridge: Harvard University Press, 2012).
[241] Dipesh Chakrabarty, "Climate Change and the Human Condition," lecture given at the University of Illinois, November 4, 2013.
[242] Dipesh Chakrabarty, "The Climate of History: Four Theses," *Critical Inquiry* 35, (Winter 2009): 197-222.
[243] Emily Eliza Scott, "Archives of the Present-Future: On Climate Change and Representational Breakdown," *The Avery Review: Climates: Architecture and the Planetary Imaginary*, (May 2016): http://averyreview.com/issues/16/archives-of-the-present-future, 135.
[244] Ibid, 136.

Amy Balkin's *A People's Archive of Sinking and Melting* (Figure 46) as an example, stating that: "the archive simultaneously serves as 'a time capsule' for a near future," which Balkin herself calls "the future anterior."[245] *A People's Archive of Sinking and Melting* consists of objects contributed by people living in places that might disappear due to climate change. Databased and accessible online, these contributions form an archive of "what will have been."[246] *A People's Archive of Sinking and Melting* illustrates one of the main challenges in picturing climate change: it attempts to show a present that is representative of both the past and the future, the moment when the often repressed responsibility for climate change is confronted in both the actions of the past and the devastation of the future. Many other artists have grappled with the challenge of picturing climate change, and though Sugimoto, as explained above, almost definitely did not intend *Polar Bear* to participate in this imaging, his photograph nonetheless enters into the history of such picturing.

Sugimoto's use and mobilization of taxidermy is key here. Taxidermy, in its attempts to reanimate life, is often referred to as uncanny. This makes sense even when just thinking about the word's vernacular definition: the uncanny refers to something mysterious, creepy, or to a strange feeling of being watched. The uncanny feeling of being watched is evident in several of Sugimoto's photographs from the *Dioramas* series, such as *Gemsbok* (Figure 42), where it appears as if all the glass eyes of the taxidermy antelope are on the viewer. But Freud, in his essay, "The Uncanny," develops a more specific definition. For Freud, the uncanny is the appearance of something familiar made unfamiliar and frightening. This fright emerges because that which appears had previously been concealed from the self or repressed. The uncanny, then, is anything we experience that reminds us of aspects of our unconscious life. Freud writes, the

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[245] Scott, 138, and Balkin, "A People's Archive of Sinking and Melting (2012-)," in *Critical Landscapes: Art, Space, Politics,* ed. Emily Eliza Scott and Kirsten Swenson, (Berkeley: University of California Press, 2015): 63.
[246] *A People's Archive of Sinking and Melting*, http://www.sinkingandmelting.org/

uncanny is "something which is secretly familiar…which has undergone repression and then returned from it."[247] Considering this, taxidermy, such as that displayed at AMNH and photographed by Sugimoto, might be said to function not exactly as Freud describes, but in reverse: taxidermy displays that bring nature within sight, if not reach, make the unfamiliar familiar again. By mounting and containing wild animal skins within a diorama, an animal that the viewer is unlikely to ever encounter in person, from a place most viewers are unlikely ever to visit, is made possessable, or at least placed within the field of vision.

Jane Seppänen develops a term, the ecological uncanny, that further clarifies how Sugimoto's work might be thought in terms of both the uncanny and also Morton's hyperobjects. Seppänen uses the term ecological uncanny to discuss the photography of 2007 Finnish Press Photos of the Year Competition winner Hannes Heikura.[248] For Seppänen, images that visualize ideas of climate change, which, as already mentioned, is itself an abstract idea that is impossible to picture, are at once both beautiful and frightening, like a sunset made more stunning by atmospheric pollution. This combination of the frightening and beautiful is exactly the quality, for Seppänen, that renders an image as part of the ecological uncanny.[249] The ecological uncanny functions, similar to the conservation aesthetic, at a paradox, where environmental destruction is both too frightful to bear and to too detrimental to ignore. This is illustrated in uncomfortable images that almost let the viewers slip into denial while also forcing them to reckon with the anthropogenic forces impacting the environment. While much psychoanalysis is not applicable to my (or Seppänen's for that matter) discussion, the uncanny is particularly useful because of Freud's focus on how that concept is connected to denial and repression, two sentiments that are

[247] Sigmund Freud, "The Uncanny," in *The Norton Anthology of Theory and Criticism,* edited by Vincent B. Leitch 929-952.(New York: W. W. Norton & Co., 2001): 947.
[248] Jane Seppänen, "Lost at sea: The Freudian uncanny and the representing ecological degradation,"
[249] Ibid, 198.

pertinent when discussing the cultural response to climate change, especially in the United States.

In other words, the ecological uncanny is uniquely situated to address the issue of climate change because of the fervent denialism of the anthropogenic causes of global warming as well as the difficulty in picturing an object as massive and shifting as climate. Seppänen links the ecological uncanny specifically to the "disruption of the harmony of nature."[250] Even though humans have been interfering with nature for our entire species existence, climate change feels uncanny for a number of reasons: one, because that disruption is now occurring on a geologic scale, and two, because for so long, particularly in the global North, Americans and Europeans have been able to hold on to a picture of harmonious nature free of human caused disruptions. ANWR, for example, is still referred to as the last American frontier. But, if this landscape is being changed by human action elsewhere, the myths of pristine wilderness and the frontier begin to dismantle. How does a nation built on the mythology of exploration and wilderness frontiers reckon with the realization that pristine wilderness has never existed? In many circles, the general public does not, and instead represses the paradoxical elements of wilderness. This repression is part of the ecological uncanny, and also part of the conservation aesthetic.

Furthermore, the ecological uncanny is useful not only to discussions about the mythologies of wilderness, but also to the fervent and deliberate denial of climate change which has emerged from the conservative right in American politics. Despite overwhelming scientific evidence that climate change is anthropogenic, American leaders like Donald Trump and Oklahoma Senator James Inhofe still claim that there is no evidence for climate change, even going so far as to claim that climate change is a hoax created by China to destabilize the United States. Fossil fuel industries have a stake in climate change denialism, and since the mid-20th

[250] Ibid, 200.

century, have funded research that questions the anthropogenic causes of climate change. Others point to past geologic warming and cooling events to explain the current climate crisis as a natural event. These acts of repression are so insidious that even the majority of people who believe in science view this denialism as uncanny itself, and attempt to keep it at a distance, or in other words, repress it. *Polar Bear,* even unwittingly, engages with climate change both as a hyperobject, and in its specific symptoms

What becomes so ecologically uncanny about Sugimoto's *Polar Bear* is, in part, the ways in which it does not allow viewers to either deny climate change or repress fears of a changing climate. Instead of providing a window into a distant past that could predict a post-human future, as Sugimoto hoped or thought *Dioramas* would, *Polar Bear*, understood through the ecological uncanny, reveals a false image of the past while simultaneously drawing from the imagined Arctic of the repressed American imaginary. The view of the future offered by *Polar Bear* is one free of both polar bears and the Arctic landscape as we currently understand it. In this, *Polar Bear* represents a vision of the Arctic that is both familiar and unfamiliar. Most Americans have a clear vision of what they believe the Arctic to be. Popularly, the Arctic is envisioned as a blank and open whiteness, nothing but snow and ice extending for miles. But this vision of the Arctic has been modified in recent years. As climate change becomes a readily accepted reality, the Arctic many Americans just as frequently envision is as a melting land under threat. It is no longer only imagined as a cold and distant icescape, but as a landscape at risk of disappearing because of climate change and habitat destruction. Others still imagine the Arctic as the last frontier, rich in natural resources and fossil fuels ready to be extracted. Despite these shifting visions that assume some familiarity with the landscape, the Arctic is a space that most

Americans will never visit, meaning that if it can be clearly pictured, whether that picture is accurate or not, it is rarely known and made truly familiar.

When *Polar Bear* is compared to a 1967 installation photograph of the polar bear diorama (Figure 47), Sugimoto's framing of the image and his use of a long exposure removes any sense of the painted backdrop and constructedness of the scene. In the diorama, the fake ice ends abruptly at the front edge of the diorama space; the painted background, while providing some illusion of space, appears as a vertical backdrop. In contrast, the background of Sugimoto's photograph fades infinitely into the gray background, creating the illusion of an infinite expanse of sea ice, which in fact no longer exists, and the sea ice that does remain forms later and later into the year, to the point that it soon will stop re-forming at all over the summer months. Additionally, the polar bear hunting behavior represented in the photograph and that is so dependent on the formation of sea ice will also cease to exist, making *Polar Bear* appear more as a ghostly image than a representation of present-day life.

Given these circumstances, *Polar Bear* might more accurately be thought of as a spectral image that asks the viewer to question their own sense of time and space. Considering this, it is also unclear where and when the viewer stands. Are viewers museum visitors in our current moment or members of the early 20th-century Arctic expedition which collected these polar bear and ribbon seal specimens? Or somewhere else altogether? The taxidermy diorama, itself, is an attempt at timelessness – but photographing it does not freeze a specific moment in time, rather, it captures a frozen, yet perpetually ongoing moment. Habitat dioramas are attempts at presenting animal behavior, observed in the wild, for viewers at a permanently close range. Until the diorama is removed from view, the polar bear will always have just killed this seal, and always be just about to consume its blubber. But as has been discussed earlier, the image of a

polar bear hunting seals through their breathing holes in sea ice is a vision that will no longer exist in the not too distant future. While the photograph appears to show an action forever taking place in the presence of the viewer, it is an image in the process of disappearing. This uncanny effect dictates the viewing of the image, begging for a slowness in the viewing process as it requires the viewer to take their time. I have argued it is important to pull *Polar Bear*, in part, from its original cultural context in order to understand new, and I believe more pressing, meanings. By not having a settled place in space or time, *Polar Bear* pushes itself into the viewers' moment, and should be interpreted according to our current environmental knowledges. Like the taxidermy bear, viewers, confronted with the overwhelming scope of climate change, are likely immobilized by mourning future loss and what can no longer be saved.

The ecological uncanny identifies the strangeness that is now experienced as our current climate conditions. Climate change creates a strangeness in temperature, weather patterns, and atmosphere that becomes unrecognizable to people experiencing these changes. This repression is not only a denial of the damage wrought to ecosystems, but also of the vehicles which created these destructive forces: especially, in the case of North America, settler colonialism. For many indigenous peoples, these effects are not uncanny, but dystopian. As Kyle Powys Whyte explains: "the environmental impacts of settler colonialism mean that quite a few Indigenous peoples in North America are no longer able to relate locally to many of the plants and animals that are significant to them. In the Anthropocene, then, some Indigenous people already inhabit what our ancestors would have likely characterized as a dystopian future."[251] Whyte's use of dystopic thinking expands what can be understood as climate change and experiences of climate change: "In the nineteenth and twentieth centuries, we already suffered other kinds of

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[251] Kyle Powys Whyte, "Our Ancestor's Dystopia Now: Indigenous Conservation and the Anthropocene," *The Routledge Companion to the Environmental Humanities*, 207.

anthropogenic environmental change at the hands of settlers, including changes associated with deforestation, forced removal and relocation, containment on reservations (i.e. loss of mobility), liquidation of our lands into individual private property and subsequent dispossession and unmitigated pollution and destruction of our lands from extractive industries and commodity agriculture."[252]

Polar bears are a species whose behavior and range are shifting due to climate change; they are moving landward to find alternative denning sites and food sources. As apex predators, they experience the highest rates of toxin bioaccumulation. For many people living in the Arctic, current conditions cannot be understood in terms of Sugimoto's hope for a post-human utopia, but only in terms of the present dystopic conditions. In many respects, one of the reasons that *Polar Bear* is so uncanny is because it feels familiar. *Polar Bear* illustrates the polar bears we think we know, but, as climate change continues to destroy their hunting and denning habitats, and as POPs and heavy metals continue to accumulate in Arctic trophic levels. The polar bear that we picture, as she is shown by Sugimoto, will no longer be the polar bears that exist in the wild – that is outside of the museum walls or not in captivity. Compared to Banerjee's polar bear, which is partially reflected in a pool of melting water as it walks towards a whale carcass, Sugimoto's *Polar Bear* pictures instead the mythologized bear of the American cultural imaginary.

Conclusion: Freezing and Melting

When Senator Boxer held up Banerjee's polar bear photograph to defend against oil drilling in ANWR, the opposition response included Alaska Senator Frank Murkowski holding up a blank white poster board arguing that this was a more accurate picture of the Arctic coastal

[252] Ibid, 208-209.

plain.[253] Gale Norton, Bush's Interior Secretary, echoed this sentiment by describing ANWR as a "flat, white nothingness."[254] Of course, Norton and Murkowski's take couldn't have been more wrong. The coastal plain is seen by ecologists as a tension zone, or ecotone, between two habitats. Ecotones, and the Arctic coast is no exception here, generally foster far more biodiversity than either of the zones they join. The Arctic ice edge is particularly interesting ecologically as it is reliant on ice formation and has no fixed boundaries.[255] The Arctic coast's status as an ecotone makes it a particularly important yet challenging candidate for legal protection.

Just a few years before this congressional debate, AMNH remodeled the polar bear diorama photographed by Sugimoto. The diorama needed to be rebuilt to accommodate a fire exit in the Hall of Ocean Life, but also was part of an attempt to drum up public excitement for the planned 2000-2003 renovation of the Hall of Ocean Life.[256] The background of the diorama photographed by Sugimoto was dull with age, and even its original form lacked color or excitement. Sean Murtha was assigned the task of imbuing new life into the polar bear diorama, and to do so he created a dramatic and colorful background (Figure 48). No longer a blank and open white snowfield, Murtha painted sweeping snow drifts and blue ice caps twisting toward a vibrant orange and pink sunset. The perfect cracks, leading to the breathing hole we can presume the seal was dragged out of, were replaced by Murtha with a deep blue hole surrounded by crumbling ice and snow, visual evidence of the polar bear's brute force. Adding to the blood pooling around the ribbon seal's face, a new trail of blood leads the eye back to the breathing hole, further evidence of the predatory strike.

[253] Dunaway, 259.
[254] Ibid, 259.
[255] Thomas et al, 179.
[256] Sean Murtha, email to author, June 4, 2020.

Even something as static as a natural history diorama changes. With shifting museum priorities and changing (if not changed) public opinion about taxidermy, it is possible that one day in the not too distant future, Sugimoto's *Dioramas* series will picture not only a vanishing natural world, but a disappearing artform as well; that is, dioramas are not just representations of ecosystems of the past, but a past mode of representation. AMNH decided to revamp the Hall of Ocean Life partially in response to concerns over public attitudes that habitat dioramas were outdated and even creepy. Murtha recalled that when the renovations were first discussed, there were concerns that the older dioramas might just be removed. The new polar bear background was partially an attempt to show how refreshed excitement could be brought to old dioramas.[257]

While the brightly colored background was meant to draw excitement for more diorama renovations, it also works to shift the popular understanding of the Arctic landscape. Murtha's painted backdrop is certainly a far cry from Murkowski's poster board. Murtha's brilliantly colored icescape and dramatic sunset also contrast with the faded and expansive background of Sugimoto's *Polar Bear*. The ice depicted in the updated diorama background is likely older pack ice, more specifically pressure ridges that are formed when older pack ice collides. Pack ice, which is any ice not tied to land, is constantly shifting, moving across the ocean surface from the force of currents, wind, and wave action. This movement can cause the collisions necessary to create pressure ridges which can be as tall as a few hundred kilometers.[258] Arctic ecotones are consistently shifting environments, dynamic as the one painted by Murtha in the updated background to AMNH's polar bear diorama.

Polar bears generally roam the same geographic area over long periods of time. Their skills of navigation seem even more impressive when you consider that they find their way to

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[257] Ibid.
[258] Thomas et al 183.

favored hunting spots and breeding dens year after year across a landscape of sea ice that is constantly moving with changing ridges and windswept hummocks. Despite the shifting landscape, however, bears do prefer younger pack ice to the thicker multi-year floes that have multiple large and rough ridges, as the smoother ice is easier to travel across.[259] This means that a bear is more likely to be found along the smoother pack ice that is more expected to break up, as pictured in the background of the 1966 diorama, than in the more dramatic landscape of Murtha's updated diorama. Additionally, as ice breaks up earlier in the year and re-forms less every fall, bears may be forced to hunt across less preferred but more reliable multi-year ice. It is also possible that the towering pressure ridges depicted in the diorama background will also cease to be an aspect of the Arctic landscape. In this sense, and as previously described, the dioramas become habitat baselines against which to measure present and future ice comparison.

Polar Bear was not the only time Sugimoto pictured the Arctic Ocean for his *Dioramas* series. In fact, pictures of the Arctic literally bookend the project: *Polar Bear* is the cover image for the catalog and *Arctic Ocean*, from 1980 (Figure 49), is the very last image in the book. *Arctic Ocean* is possibly even more difficult to decipher as a photograph of a diorama. As a diorama of just a habitat, with no taxidermy animals, it lacks the telltale stiffness of the mounted animal to create that moment of pause in the viewer. Most likely a photograph of a much smaller diorama, it shows multi-year ice that, instead of colliding to form pressure ridges, has broken off from larger floes or may be attached to land, or other large non-ice bodies. However, aside from the bird that can barely be made out flying over the painted horizon, *Artic Ocean* is an animal-less space. The long exposure time used by Sugimoto blurs the painted background and makes it seem as if this harsh landscape extends infinitely. The ripples across the ocean water in the

[259] Ibid, 281.

foreground, however, create a sense of movement, bringing the dynamism of the shifting ice to the otherwise still image.

Ten years later, Sugimoto photographed the Arctic Ocean, in person, as part of another long series, *Seascapes*. *Arctic Ocean, Nord Knapp*, from 1990 (Figure 50), looks very much like the other photographs from the *Seascapes* series; the horizon line is at near center of the image and a long exposure time blurs the sky and water so that they both appear as fuzzy gray forms, gradating only slightly due to the movement of clouds or waves. With no sea ice present whatsoever, this ocean, blurred in the photograph, is indistinguishable from any other seascape in the series. Like *Dioramas*, *Seascapes* is destabilizing. It is difficult to differentiate between water or sky, or even identify the elements of the photograph as water and sky. The land the image was captured from and geographic location of each photograph is impossible to identify without the aid of the caption. Again, the viewer is left with no ground to stand on.

Aspects of both *Arctic Ocean* and *Arctic Ocean, Nord Knapp* are certainly unsettling, but they do not, like *Polar Bear*, necessarily operate within the ecological uncanny. By this I mean that *Polar Bear* pictures the denial of climate change and a repression of the irreparable damage past and current actions have caused and will continue to cause to distant ecosystems. Rather, *Arctic Ocean, Nord Knapp*, especially in terms of its similarities to photographs in the rest of the *Seascapes* series, is not an image of the repression of the damage wrought by climate change, but serves as a warning of a future with an ice free Arctic. Together, Sugimoto's three Arctic photographs form a sort of Dickensian trio; with *Polar Bear* representing the Arctic of the past, *Arctic Ocean* showing its present, and *Arctic Ocean, Nord Knapp,* displaying the iceless future.

Lacking the depiction of biodiversity and the dramatic ice formations and bold colors of Murtha's remodeled polar bear diorama, *Arctic Ocean* and *Arctic Ocean, Nord Knapp,* are much

more similar to the blank poster board nothingness held up by Murkowski as a picture of the Arctic coastal plain. The ecological uncanny, as depicted in *Polar Bear*, works to invoke a fear of this potential nothingness. Instead of revealing a potential post-human future in which nature recovers, it unpacks the terrifying truth that fragile ecosystems like the Arctic and particularly at-risk species like the polar bear may actually already be beyond recovery. This mode of thinking challenges the narratives that position the Arctic as a pristine wilderness and a frontier teeming with natural resources to be exploited. Instead of displaying the mythological potential of post-human recovery, *Polar Bear* maintains the human causes of anthropogenic climate change. The spectral quality of *Polar Bear* is a reminder not only of what has been, but of what will cease to be. What *Polar Bear* uncovers is not the constructedness of the natural world but rather the denial of the cultural complacency in its destruction. And as Bill McKibben says:

> All this is not to say we shouldn't act. We must act, and in every way possible, and immediately. We must substitute, conserve, plant trees, perhaps even swallow our concerns over safety and build some nuclear plants. We stand at the end of an era – the hundred years' binge on oil, gas, and coal, which has given us both the comforts and predicaments of the moment…The choice of doing nothing – of continuing to burn ever more oil and coal – is not a choice, in other words. It will send us, if not straight to hell, then straight to a place with a similar temperature.[260]

[260] McKibben, 124.

CHAPTER 4: BIGFOOT: PICTURING THE PARADOX OF WILDERNESS IN BIGFOOT WITNESS PHOTOGRAPHY

Introduction

On October 20, 1967 Roger Patterson and Bob Gimlin were riding horses through the Bluff Creek area in Northern California. Interested in the possibility of Bigfoot's existence, the pair sought to capture evidence of the unknown species in an area where tracks had previously been found. Of this fateful Fall day, Patterson wrote:

> About 1:30 in the afternoon, as we rounded a bend in the road, we saw the creature. My horse reared, and then fell as I tried to control it. But I got the camera out and yelled to Bob to cover me with his rifle while I tried for the pictures. The thing was across the creek beside the road, about 50 yards away. I ran down to the creek and got on a high sandbar to film it. It was obviously a female, for although it was covered in hair you could see it had large breasts. It stood about six feet tall, maybe more, and was very broad. We figured the weight at somewhere between 350 and 400 pounds. She stood there for maybe half a minute, and then started walking away, still upright. She crossed the creek, got back on the logging road up ahead and moved out of sight. Bob started to follow on his horse, but I called him back. The tracks we'd seen earlier indicated she was part of a family group, and that could be dangerous. I was shaking quite a bit, so the film isn't too steady, but it shows the thing clearly. I've believed they existed for a long time, just to talking to many eye-witnesses. Now there's no doubt at all.[261]

The film Patterson describes here has become one of the most celebrated images of the elusive Bigfoot, and one still in particular, a moment when she looks back at the camera, referred to as Frame 352 (Figure 51), is possibly the most iconic image of the North American cryptid ever created. As Patterson tells us, the film is evidence. "There's no doubt at all."

The film is a hoax, yet Patterson swore its authenticity until his untimely death in 1972 and Gimlin continues today to tour the country telling the story of its recording. Whether or not you believe Patterson and Gimlin, Bigfoot has become an important part of national mythology

[261] Quoted in: Christopher L. Murphy, *Bigfoot in Ohio: Encounters with the Grassman*, (New Westminster, British Columbia: Pyramid Publications, 1997), 140-141.

in the United States. She is a pop culture icon, even influencing political debates - like during the 2018 race for Virginia's Fifth Congressional District in which the Democratic candidate Leslie Cockburn accused her Republican opponent Denver Riggleman of authoring Bigfoot pornography based on his Instagram posts of hand-drawn images of a nude and well-endowed male Bigfoot.[262] Or, in the case of Matthew Whitaker, Trump's acting Attorney General from November 2018 until February 2019, who also has Bigfoot ties: he sat on the advisory board of World Patent Marketing, which claimed, "DNA evidence collected in 2013 proves that Bigfoot does exist."[263]

Bigfoot matters enough to be seen, heard, and felt in every state (except Rhode Island).[264] Locally, Bigfoot takes on many names, such as the Ohio Grassman or Florida's Skunk Ape, but sightings are most often reported in rural areas and on public land such as national or state forests and parks. Bigfoot imagery is also more popular in rural areas, with her likeness, frequently a silhouette inspired by Frame 352, appearing on everything from bumper stickers to yard signs and shop names. Broadly, Bigfoot has become a symbol of wilderness and ruggedness yet also represents a counterculture concern for the environment. The belief in Bigfoot preserves a belief in the undiscovered on North American lands; in essence, Bigfoot upholds aspects of frontier culture. But, if a creature the size of Bigfoot were to live in the North American wilderness, the species would require large areas of protected lands to survive, linking the symbolism of Bigfoot directly to wilderness conservation. Images of Bigfoot, in general, operate

[262] Riggleman posted illustrations for his upcoming book *The Mating Habits of Bigfoot and Why Women Want Him*, which he claims is more of an anthropological study on Bigfoot researchers. Despite this criticism, Riggleman went on to win the election.
[263] The company also had a website selling Bigfoot paraphernalia and planned a celebrity event called "You Have Been Squatched!" https://www.washingtonpost.com/opinions/matthew-whitaker-is-steeped-in-time-travel-and-bigfoot-hes-the-right-man-for-the-job/2018/11/13/2ed59fc8-e785-11e8-b8dc-66cca409c180_story.html (accessed January 14, 2020)
[264] Curiously, Rhode Island is the only state in the union without a recorded Bigfoot sighting as of July, 2019.

within the conservation aesthetic because of these linkages both to frontierism and to wilderness conservation. The symbol of Bigfoot has long historical ties both to settler colonialism and to conservation.

What I am most interested in however, are the many attempts to photograph Bigfoot that surrounded the fervor created by the Patterson-Gimlin film. Because of the truth claims made by the medium, photography is often considered the best evidence for the existence of Bigfoot besides footprint casts or actual physical remains. But, outside of the Patterson-Gimlin footage, very few claims have been made to the picturing of an actual Bigfoot. Instead, Bigfoot photography is most often pictures of witnesses. Many are simple portraits, sometimes taken years after the alleged Bigfoot sighting like the photograph of Farrel Shook, who saw a Bigfoot on his own property in North Carolina (Figure 52). Many other photographs depict individuals, most often seriously gazing into the lens, holding other indexical evidence of Bigfoot, that is, footprint casts, like the photograph of Paul Freeman who saw a Bigfoot in a national forest in Washington State (Figure 53) or South Dakota police officer Verdell Veo, who was photographed holding a footprint cast in front of his police cruiser, likely to provide himself more credibility (Figure 54). Many others, however, are photographed at the very site they claim to have seen a Bigfoot, pointing to the spot it was purported to stand, such as Charles Jackson, who was photographed gesturing to the empty space in his California yard where he saw the creature (Figure 55).

This chapter looks at Bigfoot photography as part of the conservation aesthetic, first, by understanding the history of the search for Bigfoot and subsequent attempts to photograph it as part of a settler colonial paradigm that seeks to use Bigfoot, as mythology or cryptozoology, to uphold the discourse of the frontier. The cultural construction of Playing Indian serves as the

model through which I read Bigfoot imagery and narratives to understand Bigfoot as operating as part of a settler colonial discourse. Simultaneously, Bigfoot also functions as a symbol of ecological awareness and the environmentalist aims to protect and conserve wilderness areas. Like the polar bear and climate change, Bigfoot has come to serve as a symbol for wilderness conservation. Similar to the conservation aesthetic, however, the concept of wilderness itself, and legal attempts to preserve wilderness areas, uphold the notions of settler colonial belonging and identity that threaten the very landscapes in need of protection.

Bigfoot photography, itself created within this dialectic, offers a potential to rethink wilderness. Through its attempts to photograph an index that has no referent in the physical world, Bigfoot photography challenges the very nature of the medium. These are not photographs of Bigfoot, but rather pictures of witnesses, sometimes pointing to the blank spots where Bigfoot is no longer. These photographs of Bigfoot are, essentially, photographs of witnesses pointing to the emptiness of the indexical truth claims made by photography. Through attempts to picture an index with no real referent, these witness photographs also point to the instability of the wilderness mythology inherited from the American settler colonial logic of the late 19th and early 20th centuries. The emptiness revealed in the attempts to picture Bigfoot uncovers, also, the impossibility of picturing wilderness, as wilderness, as it is often defined even in legal terms, does not exist.

In order to use Bigfoot photography to destabilize the idea of wilderness, one of the very tropes it attempts to uphold, this chapter begins with a general background and history of the Bigfoot myth in the United States. A frequent topic of folklorists, Bigfoot has not been seriously considered by many scholars outside of anthropology so the majority of this history comes from that discipline or from Bigfooters directly, those who believe in and otherwise search for the

beast, and cryptozoologists, people who study cryptids, that is creatures still unproven to science. Through comparisons to more traditional images of wilderness, I discuss the ways in which Bigfoot imagery, particularly media images connected to the release of the Patterson-Gimlin film, works within a settler colonial logic, particularly the discourse of Playing Indian. Next, the chapter considers both the work Bigfoot photographs do to encourage wilderness conservation and the problems with the very idea of wilderness conservation before unveiling the potential in Bigfoot photography to undo those problems. Drawing from the work of theorist Ariella Azoulay, I argue that Bigfoot photography can help "unlearn" wilderness.[265] Deviating from the previous chapters slightly, this chapter relies less on the natural history, ecology, and biology of the species pictured out of necessity, as Bigfoot, as a cryptozoological creature, does not physically impact the ecosystems she is said to inhabit.

Bigfoot: A Natural and Unnatural History

Although many cryptozoologists argue that Bigfoot sightings have occurred since humans inhabited North America, folklorists establish the birth of the Bigfoot myth in the 1950s, having roots in both Canada and the Pacific Northwest of the United States. This dating can be traced to events like the 1957 Sasquatch hunt in the Canadian town of Harrison Hot Springs. The hunt was organized after the provincial government of British Columbia provided funds to towns for celebrations of the province's centennial; Harrison Hot Springs used their share to help reinvigorate a local legend about Sasquatch.[266] The term Sasquatch comes from the Anglicization of the Coast Salish (an ethnically and linguistically connected group of Indigenous people in the Pacific Northwest), *sέsqəc*, a large, hairy humanlike creature who lives in the

[265] Ariella Aïsha Azoulay, *Potential History: Unlearning Imperialism*, (London: Verso, 2019).
[266] Daniel Loxton and Donald R. Prothero, *Abominable Science: Origins of the Yeti, Nessie, and other Famous Cryptids* (New York: Columbia University Press, 2013),35.

woods and forest. *Sέsqəc* is just one of many names for a group of creatures anthropologist Wayne Suttles refers to as "timber giants," who, besides being large and hairy also have a tendency to disappear quickly and steal food and sometimes women from the Salish people. [267]

Harrison Hot Springs traced their town connection to Sasquatch to one of the earliest written records of the creature from the early 20th century, the writings of John W. Burns, a schoolteacher and Indian agent on the Chehalis Indian Reserve near the town. Burns set out to record sightings of the Sasquatch monster, which could have been the *sέsqəc* or any number of other related creatures, including the mythological beings referred to by Suttles as "timber giants;" ogresses who stole children in baskets to eat; tree-stalkers, who served as bad omens and knocked down trees; or even forest people.[268] Forest people, sometimes simply referred to as unfriendly strangers, were likely mythologized versions of very human and actual enemies who were demonized to seem supernatural and inhuman.[269] Burns combined many indigenous stories into one Sasquatch, but the timber giant mythologies are multiple, having varied and specific tribal names and individualized traits, such as legs that bend backwards, traveling long distances by hopping, or having a long singular spike on the big toe. Burns believed these creatures to be entirely mythological and wrote several articles about native beliefs surrounding the Sasquatch and Sasquatch-like beings in the 1920s and 1930s.

In 1957 the British Columbia provincial government denied the request to fund a Sasquatch hunt inspired by Burns' writing, nevertheless, the idea gained traction as a publicity stunt for the town.[270] Instead of an organized hunt, the British Columbia Centennial Committee

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[267] Wayne Suttles, "On the Cultural Track of the Sasquatch," *Coast Salish Essays*, (Seattle: University of Washington Press, 1987): 73-99.
[268] Ibid.
[269] Ibid, 94-95.
[270] Loxton and Prothero, 35.

promised a $5,000 reward for anyone who could bring in the hairy creature alive.[271] With this, the Sasquatch craze was born, and many researchers and hunters, some who would go on to devote the rest of their lives to the effort, traveled to British Columbia in search of the creature.

It would take only one year for Sasquatch to travel across the border into the United States, where she would earn the moniker Bigfoot. She first appeared in the United States when Jerry Crew, a construction worker, allegedly found tracks in the Bluff Creek, California area, at a logging site owned by Raymond Wallace, where Crew worked.[272] Allegedly, Crew found the first set of tracks one morning in August 1958, and thinking they were a hoax or a joke, ignored them, even though he had heard about reports of similar footprints in the area from as early as 1947.[273] Eventually in October, the tracks started showing up at the logging site every morning. Loggers and other locals began referring to the creature who they imagined left the tracks as Big Foot, and blamed him (in the logger imaginary, the creature was undoubtedly male) for odd occurrences, like missing equipment or lost pets.[274] On October 3, 1958, Crew made his first casting of the prints, and brought them to a newspaper. The casts drew the attention of *Humboldt Times* reporter Andrew Genzoli who changed the creature's name from Big Foot to Bigfoot – believing it would read better in the press as one word.[275] From the beginning, the Bluff Creek Sheriff's office suspected Wallace, the site owner, of a hoax – though he denied any involvement in the prints. Eventually, after Wallace's death in 2002, his family revealed one of the sets of strap-on wooden feet that he had used to make some of the series of footprints through the late 50s, and likely later.[276] While the 2002 admission seems revelatory, Wallace's involvement with

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[271] Ibid, 36
[272] Ibid, 40.
[273] Joshua Blu Buhs, *Bigfoot: The Life and Times of a Legend*, (Chicago: University of Chicago Press, 2009), 68.
[274] Loxton and Prothero, 70.
[275] Buhs, 75.
[276] Loxton and Prothero, 41.

and commitment to Bigfoot hoaxing was well known throughout his life. At one point he claimed to have captured a live Bigfoot, offering to sell it to researchers for one million dollars. While he dragged out negotiations with interested parties for weeks, he apparently decided to "release" the creature instead.[277] Despite this, many believers put faith in Crew's first tracks from 1958 and claim that Wallace's hoaxes only started after this first finding.

Though many folklorists date the beginning of the Sasquatch myth to 1957, and the Sasquatch hunt in the town of Harrison Hot Springs, there are earlier accounts of Bigfoot-like sightings, including one by Teddy Roosevelt. In his 1893 book *The Wilderness Hunter,* Roosevelt references a "goblin story" told to him by a "griseled [sic] weather-beaten old mountain hunter named Bauman," who, because of his German ancestry had been "saturated with all kinds of ghost and goblin lore," and "knew well the stories told by the Indian medicine men in their winter camps, of the snow-walkers, and the spectres [sic], and the formless evil beings that haunt the forest depths, and dog and waylay the lonely wanderer who after nightfall passes through the regions where they lurk."[278] Roosevelt seems to discount this story as superstition from the outset, yet still deems it worthy of telling, cementing it as part of the historical proof many Bigfooters today point to as evidence of the creature's existence. According to Roosevelt, Bauman and a trapping partner were camped in the mountains between the Wisdom and Salmon Rivers in present day Idaho when their camp got ransacked by a bear during their daytime absence. Quite peculiarly, however, Bauman noticed that the tracks indicated this bear walked on two legs. That night loud noises and a strong odor woke the two men. The following day, they again found their camp torn apart upon return from their daytime task of checking their traps. And once more, they found tracks pointing to a creature walking on

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[277] Ibid, 42.

[278] Theodore Roosevelt, *The Wilderness Hunter: An Account of the Big Game of the United States and its Chase with Horse, Hound and Rifle*, (New York: G. P. Putnam's Sons, 1893), 441

two legs. This made the men uneasy enough that they decided to move camp—though Bauman reported they felt like they were being followed in the process. After setting up the new camp, the men went out separately to check their traps, and when Bauman returned, he was horrified to find the body of his friend, "still warm, but that the neck was broken, while there were four great fang marks in the throat."[279] Though Roosevelt is never able to identify the creature for his readers, he writes, "the footprints of the unknown beast-creature printed deep in the soft soil, told the whole story."[280] While Bauman believed his friend was attacked by some sort of goblin or devil, Roosevelt's reliance on the footprint as evidence is likely the main factor that places this tale so firmly in the Bigfoot canon. The connection to Roosevelt also links the late 20th-century hunt for Bigfoot to 19th- and early 20th-century narratives of exploration and Roosevelt's own Strenuous Life.

Bigfoot is not only linked to masculinist American frontier discourses, but broader global histories of imperialism and masculinity as well. While Bigfoot and Sasquatch can be considered distinctly North American, their ascendance to fame happened shortly after the popularization of another monster born out of settler colonialism – the Yeti or the Abominable Snowman. Like the term Sasquatch, Abominable Snowman also originates from a mistranslation of a local language, in this instance, the Tibetan term *meh-teh kangmi*, which is derived from the word for bear but was understood in a 1920 British telegram to reference a terrible or abominable snow creature.[281] The beast gained popular appeal first in England, then across Europe and North America after the English mountaineer Eric Shipton published photographs of large, unidentified tracks in the snow in the Illustrated London News in 1951. Due to their knowledge of indigenous stories of

[279] Ibid, 446
[280] Ibid, 446
[281] Ivan T. Sanderson, *Abominable Snowmen: Legend Come to Life,* (Kempton, IL: Adventures Unlimited Press, 1961) 11-12

wildmen, other mountaineers, Sir Edmund Hillary included, did not immediately dismiss the possibility of a large ape-like creature stalking the Himalayas. In fact, it added explorer appeal to the settler colonial spirit that found many of those men trekking across the British colonial territory. Both Britain and the United States sent scientific expeditions in search of the Yeti in the 1950s, but with no evidence, American attention for unknown apes turned geographically inwards, and was impacted by the settler colonial logic of the United States.

Playing Indian

According to historian Phil Deloria, Playing Indian is a specifically American manifestation of primitivism, whose origin he identifies at the birth of the American nation-state with the Boston Tea Party, where rebellious colonists donned pseudo Mohawk costumes and dumped tea into the Boston harbor. Concerning the legacy of this event, Deloria writes, "for the next two hundred years, white Americans molded similar narratives of national identity around the rejection of an older European consciousness and an almost mystical imperative to become new."[282] For Deloria, Playing Indian contains the desires both to glorify and erase the Indian. While the genocide of American Indians was necessary for the founding of the United States, American identity also relies on the appropriation of Indianness. According to Deloria, "Indians, it is clear, are not simply useful symbols of the love-hate ambivalence of civilization and savagery. Rather, the contradictions embedded in noble savagery have themselves been the precondition for the formation of American identities."[283]

In the United States, Bigfoot embodies this contradiction that Deloria describes. The narratives and material culture that emerged from the search for Bigfoot appropriates Indian

[282] Philip J. Deloria, *Playing Indian*, (New Haven: Yale University Press, 1998), 2.
[283] Ibid, 4.

cosmologies and imagery with claims to honor Indian culture that, in practice, serve to erase Native histories and claims to land. Frequently, Bigfoot research claims native origins for the Sasquatch myth, using this mythology as evidence for a long history of the species' existence. Bigfooters use Indigenous descriptions and stories about human-like monsters to be evidence for a species unrecorded to Western science. This use of Native mythology, however, lacks understanding of the specificities and complexities of Indigenous cosmologies, in which entities can exist without ever leaving behind physical evidence. Many Native belief systems do not necessarily separate the physical and supernatural or mythological worlds – but this does not mean that creatures like *sέsqəc* operate in the same realm as known animals like bear or beaver. According to many American Indians, these ogresses or *sέsqəc* do exist, just not in the ways recordable or understandable through Western scientific belief systems.

The *sέsqəc* is just one of the many beings Bigfooters use to explain the existence of Bigfoot. In the Pacific Northwest of the United States, the Modoc *matah kagmi*, the Klamath *Yay' ahya'h?as*, or the Paiute *Si-Te-Cah*, are connected and overlapping mythologies of a creature whose names roughly translate to keeper of the woods in English.[284] The keeper of the woods is understood to be a generally benevolent creature who comes to the aid of the Modoc, Klamath, and Paiute peoples. In the Northeast and Northern Midwest, the northern Algonquin *windigo* is often considered a candidate for early evidence of Bigfoot. *Windigo* stories, however, tell of an evil winter spirit that transforms people into cannibalistic giants with hearts of ice.[285] *Windigos* are not human-like hairy creatures that live in the woods, but rather humans who have been transformed into cannibalistic monsters – a process that, by many accounts, can be reversed. *Windigo* mythologies are widespread throughout Northern Algonquin cultures: in

[284] "Klamath Tribes Finding Bigfoot Episode Coming Soon!" March 18, 2016. http://klamathtribes.org/news/klamath-tribes-finding-bigfoot-episode/
[285] Shawn Smallman, *Dangerous Spirits: The Windigo in Myth and History*. (Heritage House: Victoria, 2014), 21.

Western Cree they are called *witigo, wee-tee-ko, wendigo,* or *windigo*, the East Cree refer to them as *wiihtikuu, atchen, ahcaan*, or *atuush*, the Mi'kmaq know of a being called the *Chenoo*, and the Wolastoqiyik and Passamaquoddy reference the *Kewahqu'*.[286]

The *windigo* and the *sέsqəc* are two of the most frequently referenced Indian mythologies as evidence of Bigfoot's long existence in North America, but they are by no means the only ones. Most Bigfoot searches look to local Native histories as proof of the historical existence of Bigfoot. However, all of these stories, like of a human-like creature with backwards knees, an evil spirt that turns humans into cannibalistic monsters, an ogress who steals children and hides them in a basket, or a benevolent woodland spirit that leaves behind gifts have all been combined into the hairy ape-like creature embodied by the Bigfoot myth. Bigfoot is a generalized combination of multiple, varied, and geographically diverse appropriated Indian mythologies.

This appropriation can be understood as a response to increasing environmental anxieties in the 1960s and 1970s. As mentioned in the previous chapter, this period saw an explosion of awareness of environmental degradation, considered by most scholars to date to the publication of Rachel Carson's *Silent Spring* in 1962. However, the urge to play Indian as a response to an anxiety produced by ecological destruction dates to the previous century. The late 19th- and early 20th-century anxieties about the feminizing influences of modernity and increasing urbanization and immigration that led to Roosevelt's Strenuous Life, also produced a response in celebration of what Deloria terms the "natural Indian," typified by Ernest Thompson Seton's Woodcraft Indians, a precursor to the Boy Scouts.[287] Indian play through groups like the Woodcraft Indians and the Campfire Girls, formed by Seton's wife Grace Gallatin, allowed figures like Seton to teach what he saw as authentic relationships with the natural world and premodern society. As

[286] Ibid, 22.
[287] Deloria, 93-127.

Deloria explains: "Primitives, imagined as being in close contact with nature, were thought to be able to mime the natural world more accurately than moderns."[288] This construction of the primitive Indian also allowed those who replicated it through Indian play to more firmly claim their modern American identity in contrast to the pure and primitive Indian. The belief in Bigfoot, then, is also connected to an identity grounded in a seemingly indigenous, and therefore primitive, understanding of the natural world.

By the mid-20th century, the construction of the pure and primitive Indian, more closely connected to nature than his Euro-American counterpart, was employed in the name of environmentalism. The "Keep America Beautiful" 1971 television ad campaign featuring a crying Iron Eyes Cody is exemplary of this sentiment (Figure 56). Cody, who was an Italian American actor is quite literally playing Indian in this PSA – which uses the stereotypical image of the Noble Savage as more connected to nature and thus more affected by litter and pollution. Essentially, the ad asks viewers to tap into their own ability to play Indian in order to increase their environmental awareness. An image also operating within the conservation aesthetic, the ad now known as "the Crying Indian" is an attempt to raise environmental awareness but communicates this message through the settler colonial discourse of playing Indian. Bigfoot material culture similarly utilizes the concept of the ecological Indian, allowing Americans, through the celebration of and interest in Bigfoot, to establish an identity that feels close to nature.

Patterson and Gimlin were aware of the power of playing Indian. The pair met on the rodeo circuit, and since Gimlin claimed Apache heritage, the two frequently played cowboy and Indian for the media. These claims to Indian ancestry are not uncommon, as can be demonstrated in recent history by Senator Elizabeth Warren's claims to Cherokee heritage. Claims of Indian

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[288] Ibid, 117.

ancestry are especially insidious because they work to assimilate nativeness in Euro-American culture through the cooptation of native ancestry but they also, especially through the fetishization of Indian DNA, require genetic purity for individuals to be considered authentically native, thus working to erase native people who may not be able to trace their ancestry 100% to a specific tribe. White individuals can claim Indian ancestry based on family stories while at the same time expecting genetic purity of Indians. These stories are more than just harmless family tales. As Kim TallBear states: "Raised on settler narratives and mythologies, Warren is one of millions of Americans who would "play Indian" in a quest to absorb the original inhabitants of this land, whom the state has failed to completely exterminate."[289]

Gimlin's Apache tracking skills were frequently cited as useful in the hunt for Bigfoot, and he and Patterson dressed up for photo shoots as a cowboy and Indian. For example, photographs accompanying Ivan Sanderson's February 1968 article about their film in the men's magazine *Argosy* show the men posed on horseback, in front of a mountain landscape, gazing towards the right edge of the picture frame (Figure 57). Patterson's cowboy persona is complete with a hat, jacket, and his relaxed posture, leaning just slightly back. Gimlin's version of playing Indian is quite stereotypical, with a long black wig, headband, upright rifle in his right hand, and stiff upright posture. The photograph, displayed on the front cover of *Argosy*, in many ways mirrors the image of another version of a settler-native pair: the very small figures from the center of Thomas Moran's *Grand Canyon of the Yellowstone* from 1872 (Figure 58).[290] This painting, and the landscapes by Thomas Moran in general, have received much scholarly consideration, with analysis often focusing on the role of landscape and depictions of wilderness

[289] Kim TallBear, "Elizabeth Warren's claim to Cherokee ancestry is a form of violence," *High Country News,* January 17, 2019. https://www.hcn.org/issues/51.2/tribal-affairs-elizabeth-warrens-claim-to-cherokee-ancestry-is-a-form-of-violence

[290] Sketches for this painting, displayed to congress, are often credited as being the inspiration for the establishment of Yellowstone as the first national park.

in Manifest Destiny and the construction of American identity in the 19th century. As Alan Braddock discusses in his article "Poaching Pictures: Yellowstone, Buffalo, and the Art of Wildlife Conservation," Moran's painting is meant to represent Yellowstone as a pristine wilderness, pure and unpeopled.[291] Braddock continues to describe, however, how the necessity to unpeople the Yellowstone landscape predicated the removal of American Indians, and made traditional lifeways, such as subsistence hunting for bison, a crime on National Park land.

Two figures can be made out in the bottom center of the frame, just at the tip of the inverted triangle made by the massive chasm before them. A detail of this painting (Figure 59) reveals these two figures are also riders, though they dismounted from their horses, which can be seen tied up to their left. One of the figures, dressed as a settler or explorer, is looking outward towards the canyon, arms outstretched, while his partner, dressed as an Indian, looks back towards the viewer, holding a spear upright in his right hand – much like Gimlin's rifle. The looking backward and the looking forward position these figures as operating on different time scales – the Euro-American settler, looks out over the landscape as if gazing upon the future and possibility, and the Indian figure looks back towards the viewer, positioning him in the past. This type of temporality that confines Indianness to the past is the kind of primitive discourse that challenges to conceptions of conservation and wilderness can help us unlearn.[292] Moran's small figures ease the tension of Indian removal for a settler audience. The figures are so small as to go almost unnoticed in the grandeur of the landscape. Instead of an act of genocide, removal here is pictured as a simple transaction, the former "owner," the noble savage, connected to idyllic

[291] Alan Braddock, "Poaching Pictures: Yellowstone, Buffalo, and the Art of Wildlife Conservation," *American Art* 23, no. 3 (Fall 2009): 36-59, 42.

[292] As mentioned earlier, I borrow the phrase unlearning here from Azoulay. This attempt, to unlearn discourses of progress and the 'new' which aid imperialist destruction of worlds will be discussed in greater detail.

nature, is simply transferring power and ownership to the Euro-American settler, who is amazed by the beauty before him, arms outstretched.

While there are countless other examples of these kinds of settler/native or cowboy/Indian pairings, Moran's painting, makes a particularly good comparison, or perhaps companion, to the *Argosy* photograph of Patterson and Gimlin. I cannot explicitly deny Gimlin's claims to Apache heritage, and his actual ancestry is not necessarily at stake here.[293] What I am interested in is the way that Gimlin performs this heritage, as an overt act of Playing Indian in relation to the Bigfoot myth. Patterson and Gimlin are not only paired as the quintessential cowboy and Indian, gazing out across a Western wilderness – but, like the coupling in Moran's painting, the direction of their gaze matters. As discussed in Chapter 2 with Rungius' painting *Days of Bison Millions*, it is useful to think about the directional orientation of the photograph. Orientating the image like a map, if we apply cardinal directions to the frame of the photograph, with north aligning with the top edge, then Patterson and Gimlin look eastwards. In terms of a narrative of westward progress, which associates movement west with the spread of civilization and in some respects the future, then Patterson and Gimlin, sit astride horses in a West that is no longer wild, but quickly urbanizing. In this way, their look east is a look backward in time towards a past for which they are nostalgic. The search for Bigfoot taps into the nostalgia for the frontier culture many imagined having existed in the era of American Westward expansion. Gimlin's Indian play seeks to connect these men to the primitive pasts and simpler times they mourn for at a time of increasing habitat destruction caused by the growth of industrial agriculture, mechanization, urbanization, and the plasticization of commodities. Patterson and Gimlin, through photographs like the *Argosy* cover, and even their film of Bigfoot, attempt to

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[293] A 2016 article about Gimlin in *Outside* did later add a correction that stated "A previous version of this story incorrectly stated that Gimlin's mother was part Apache." Leah Sottile, "The Man Who Created Bigfoot," *Outside*, July 5, 2016, https://www.outsideonline.com/2095096/man-who-created-bigfoot#close

bring back elements of Roosevelt's Strenuous Life, trying to prove themselves as rugged outdoorsmen, connected to nature and noble savagery. This is the double-edged sword of the conservation aesthetic, which seeks to keep wild areas wild but often for the purpose of also conserving a white masculinity built on settler colonial histories.

The search for Bigfoot extends beyond the national origin narrative of nativeness —it is a search for the prehistory of humanity as well. By the time Patterson and Gimlin filmed the Bluff Creek footage in 1967, some physical anthropologists were weighing in on Bigfoot's potential evolutionary lineage. Citing the discovery of other living fossils, such as the coelacanth, some scientists and many amateur Bigfooters surmised that these apelike monsters were really surviving bands of prehistoric humanoids ranging from Neanderthals to *Homo erectus*. The most popular species cited as the likely identification of Bigfoot was *Gigantopithecus blacki*, the world's largest known ape which lived during the Pleistocene (2.6 million to 11,700 years ago) in Southern China. Bigfooters who espouse the Gigantopithecus theory hypothesize that the species must have crossed the Siberian land bridge with other migrating mammals and holed up in the Pacific Northwest of the US and Canada.

Through this connection to a prehistoric past, Bigfoot connects to a primitivizing imaginary beyond its link to Native American mythology. Like the murals of Charles Knight, Bigfoot creates a direct link to a prehistoric humanoid lineage, establishing Bigfoot hunters as connected to a very long human-like inhabitance of the United States. If Bigfoot is understood as a prehistoric humanoid, then individuals committed to the belief in Bigfoot are also linking themselves to this prehistory – establishing a sense of Americanized belonging through deep time. Bigfoot as a prehistoric great ape moves that history back millions of years. While not the same as Playing Indian, claiming Bigfoot as essentially a living fossil functions not only to deny

Indian histories but also to fantasize a connection to prehistory. Moreover, the connection between Bigfoot and *Gigantopithecus*, allows Bigfooters to deny the supernatural conditions of stories in Indian cosmologies surrounding beings like the Modoc *matah kagmi*, the Algonquin *windigo*, or the Salish *sέsqəc*. These beings are not meant to be known or categorized in the same way as a fossilized ape – not all ways of knowing can be measured by the empirical truth value associated with paleontology. The attempt to link Bigfoot and *Gigantopithecus* can be understood as an effort on the part of Bigfooters to erase Native cosmologies and ways of knowing by claiming the mythologies' origins in paleontology. Even while Indian cosmologies and knowledge of beings like *sέsqəc* are used as evidence of a long history of Bigfoot sightings, by also claiming that Bigfoot is really *Gigantopithecus*, Bigfooters are using Native mythologies only to uphold their own belief systems, and are denying Indigenous mythologies and methods of knowledge production.

Wilderness, Bigfoot, and the Genocidal Logic of Indian Removal

Wilderness, in the United States, like the conservation aesthetic, is a paradox. Wilderness is both in desperate need of saving but also does not exist. In his seminal essay on wilderness, environmental historian William Cronon writes; "It is not the things we label as wilderness that are the problem – for nonhuman nature and large tracts of the natural world *do* deserve protection – but rather what we ourselves actually mean when we use that label."[294] Throughout the short history of the United States, the idea of wilderness has served as a defining cultural tenet. In early colonial history, North American wilderness was seen as dangerous and terrifying land, even as connected to the dark forces of evil and the devil. By the 18th century, wilderness

[294] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," *Uncommon Ground: Rethinking the Human Place in Nature,* ed. William Cronon, (New York: W.W. North & Company, Inc., 1996), 81.

was understood through the Romantic principle of the sublime and understood as one of the best ways to get in touch with god. By the 19th-century, the myth of the frontier and Manifest Destiny placed wilderness and the rugged experiences it provided as definitive of a uniquely American character. But as the North American continent became more settled by Euro-Americans, the threat of losing wilderness became ever more real, and the end of the 19th century witnessed attempts to protect wild lands and define American identity based on wilderness experiences through projects like Roosevelt's Strenuous Life, as discussed throughout this dissertation. And as Cronon states: "To protect wilderness was in a very real sense to protect the nation's most sacred myth of origin."[295]

Most wilderness areas were designated as such by the Wilderness Act of 1964, legislation that is contemporaneous to the rise of Bigfoot's popularity in the United States. The goal of the Wilderness Act was:

> to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of the enduring resource of wilderness.[296]

Preserving wild natural spaces is inherently important for the conservation of biodiversity, but the impetus of the Act to also preserve the importance of wilderness as a cultural resource includes some aspects of the double-edged sword of conservation. The Act's very language expresses the dialectic at the heart of conservation: on the one hand, conservation attempts to protect wild lands and animals, but on the other, it perpetuates a narrative of settler colonial expansion that led to the need for preservation in the first place.

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[295] Ibid, 77.

[296] "Wilderness System Established Statement of Policy," Section 2. (a), *The Wilderness Act*, Public Law 88-577 (16.U.S.C. 1131-1136), 88th Congress, Second Section, September 3, 1964, 1.

The Wilderness Act not only set aside spaces the nation could collectively refer to as "wilderness," it also formulated a legal definition of the term wilderness in the United States. The act reads, "in contrast with those areas where man and his works dominate the landscape, [wilderness] is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain."[297] Here wilderness is mostly defined in terms of what it is not: it is space that has not experienced human intervention. The problems with this definition are twofold: One, it creates an image of a peopleless and pristine wilderness that erases indigenous histories from the American landscape. "Where man himself is a visitor who does not remain," the text reads, thereby denying the indigenous histories interconnected with areas now designated as wilderness. In order to make an area wilderness, then, it first needs to be unpeopled. This is one of the many troubles with wilderness that Cronon recognizes: "The removal of Indians to create an 'uninhabited wilderness' – uninhabited as never before in the human history of the place – reminds us just how invented, just how constructed, the American wilderness really is."[298] Cronon references, for example, how the Blackfoot are now legally made to be poachers on their ancestral land in Glacier National Park, land which they only ceded with the promise of continued hunting access to that land.[299]

The second problem with the Wilderness Act's language is that it establishes wilderness as something separate and different from what the federal government considers to be civilization. The belief that any landscape on earth exists untouched by humanity is a myth. Even in spaces where people have not lived for extended periods, anthropogenic forces like climate change and pollution impact ecosystems on a global scale. Additionally, this myth of purity

[297] Ibid, 2.
[298] Cronon, 79.
[299] Ibid, 79.

celebrates wilderness in a way that reifies primitivist discourses. Consider how the Wilderness Act defines designated wilderness as "undeveloped Federal land retaining its primeval character and influence."[300] Wilderness, according to its federal definition, exists outside of historical measures of time, and is seen to be part of a distant past. If people are or were considered to inhabit this landscape, they are seen as primitive themselves, closer to nature, and not part of the civilization for whom the government is in fact preserving wilderness.

Wilderness conceived as a primeval space is part of how it is constructed as space apart from civilization, or, in many cases, its direct opposite. Cronon describes this phenomenon as an "escape from history."[301] Like the search for Bigfoot, wilderness preserves the rugged virtue of frontier culture, a place to escape the stress of urban or suburban life and return to a simpler and less civilized time. But this is a nostalgic vision of wilderness, one that carries with it a sense of loss of all that has been destroyed by civilization. Wilderness areas are small reminders of what is imagined to have been, whether this is the time imagined before European settlement, or before deforestation, or before predator eradication. Additionally, the majority of the wilderness landscapes that have been preserved are the grand mountainous lands of the west, landscapes that fit more with the sublime view of nature celebrated by 18th- and 19th-century romantics or visions of Manifest Destiny. Naturalists like Aldo Leopold as well as environmental historians such as Cronon and Dan Flores mourn the lack of foresight to create a national park in the Great Plains or prairies of the United States, for example.[302] In the popular imaginary, the best landscape in which to escape civilization are those in the mountainous west, or more exactly, the frontier of the American imagination.

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[300] Wilderness System Established Statement of Policy," Section 2. (c), *The Wilderness Act*, 2.
[301] Cronon, 80.
[302] Cronon, 73, and Dan Flores, *American Serengeti: The Last Big Animals of the Great Plains*, (Lawrence: University of Kansas, 2017)

This view of wilderness as a space of escape becomes primarily the purview of the elite. Since wilderness is understood as a place to visit, but not to stay, to experience wilderness usually requires expensive travel and often pricey equipment. Nevertheless, it is this vision of wilderness that has become central to American environmentalism, allowing those privileged individuals who can partake in wilderness recreation to focus on distant landscapes instead of the intersections of social and environmental justice closer to home. Cronon warns us: "If the core problem of wilderness is that it distances us too much from the very things it teaches us to value, then the question we must ask is what it can tell us about *home*, the place where we actually live."[303] Indeed, Cronon urges that we "discover a common middle ground in which all of these things, from the city to the wilderness, can somehow be encompassed in the word 'home.'"[304] Quoting Thoreau's famous line, "in Wildness is the preservation of the World," Cronon advocates for a shift in discourse from wilderness to wildness, as wildness can be found anywhere, from the designated wilderness areas in the national forests to the sidewalk cracks in major urban areas.[305]

Bigfoot, especially the Bigfoot represented by Patterson and Gimlin, symbolizes these ideas of a rugged yet pristine and salvific wilderness. The very potential of Bigfoot's existence maintains the frontier qualities of discovery and exploration that wilderness ideals work to uphold. Bigfoot material culture often illustrates wilderness as a nostalgic space of the past and as a rugged exemplar of American frontier culture. Patterson and Gimlin's Indian play is but one of the many examples of this. In Figure 60, Roger Patterson (right) is shown holding a cast of an enormous footprint alongside René Dahinden (left), the Swiss-Canadian Bigfoot researcher who took many of the photographs of witnesses I analyze later in this chapter. In this image, though,

[303] Cronon, 87.
[304] Ibid, 89.
[305] Ibid, 89.

Patterson again plays up his cowboy persona, with Dahinden dressed as the intellectual, a pipe casually hanging from his mouth. The men hold casts of footprints they found in the Bluff Creek, CA area in 1967 (Dahinden's) and 1964 (Patterson's). Behind them, the wooden shed decorated with a cattle skull and horseshoe further signifies Patterson's ruggedness and the men's shared outdoor acumen, linking them to a long history of wilderness adventurers. Dahinden holds a tape measure against the cast, though the device is more for show than for evidence as the numbers are not visible. The measuring device coupled with the side by side comparison of the casts lends the image a scientific feel.

The measuring device displayed by Patterson and Dahinden connects the pair to 19th-century expeditions of discovery into the supposed wilderness of that era's American West as well as the history of survey photography, which sought to document these expeditions. Patterson and Dahinden's measuring tape can be compared to the measuring stick employed by Timothy O'Sullivan in his photograph, *Historic Spanish Record of the Conquest: South Side of Inscription Rock, N.M., No. 3*, from the Wheeler survey (Figure 61). Wheeler used this image to question the dating of the European discovery of the Southwest, debating whether the date inscribed was really 1526 instead of 1726.[306] Even without the addition of the measuring aid, O'Sullivan's photographs from the Wheeler survey appear as scientific specimens, like the melon cactus depicted in Figure 62, which includes a hat next to the plant as size reference and is nearly centered in the frame. Robin Kelsey argues that O'Sullivan, in "borrowing graphic possibilities from the work of geologists, topographers, and other survey specialists…devised a

[306] Robin Kelsey, "Viewing the Archive: Timothy O'Sullivan's Photographs for the Wheeler Survey, 1871-74," *The Art Bulletin* 85, no. 4 (December 2003), 711.

specialized pictorial rhetoric to persuade viewers that the survey was securing practical gains in knowledge and that his medium could take part in this effort."[307]

In the way that O'Sullivan borrowed from the graphic possibilities of scientific record keeping, 20th-century Bigfooters borrowed from the pictorial rhetoric created by 19th-century Western survey photographers like O'Sullivan. Instead of capturing the highbrow beauty of the landscape represented by contemporary photographers like Ansel Adams, Bigfooters like Patterson and Dahinden attempt to depict both the scientific authority of their footprint casts as well as the nostalgic qualities of the Western landscape that their hunt for Bigfoot sought to reclaim. In a photograph of Paul Freeman by Dahinden, (Figure 63), Freeman can also be seen participating in this logic through his display of a Bigfoot footprint cast. In the photograph, Freeman links the indexical record of the footprint to the image of Bigfoot painted on the end of a cut log. Like O'Sullivan's melon cactus, the footprint cast is held near the center of the image and alongside Freeman's body to provide an appropriate scale. This evidence, along with Freeman as the witness, is placed in the very landscape in which Freeman had his sighting—the Pacific Northwest, signaled by the tall pine trees that appear above Freeman's shoulders and around his face. In this, the photograph seeks to announce that Freeman, just as much as Bigfoot, belongs in this landscape and is a creature of these woods. Bigfoot witnesses make claims to the physical existence of the creature, but seemingly as important to their enterprise is the construction of imagery that pictures themselves within the landscape that produces Bigfoot. In this way, Bigfoot witness photography is not only about producing narratives of scientific discovery, it is also about reproducing wilderness and the discourses of discovery and erasure that accompany it.

[307] Ibid, 702.

Bigfoot Witness Photography and Unlearning Wilderness

In her recent book, *Potential History: Unlearning Imperialism*, Ariella Azoulay argues for the power of potential history to imagine worlds before the violence and destruction of imperialism, and in so doing, unlearn imperialism that has destroyed worlds, as discussed in the introduction.[308] She describes unlearning as:

> a process of disengaging from the unquestioning use of political concepts – institutions such as *citizen, archive, art, sovereignty,* and *human rights*, as well as categories like the *new* and the *neutral*, all of which fuel the intrinsic imperial drive to "progress," which conditions the way world history is organized, archived, articulated, and represented.[309]

Unlearning these institutions, according to Azoulay, is a way to reverse the imperial power structures in which modern history is still told. I would argue that wilderness is another one of these imperial institutions that needs to be unlearned.

In response to the problems of wilderness, Cronon argues for the importance of establishing a middle ground that is not some distant land to escape to, but in fact could be part of civilization, incorporating a comprehensive understanding of wildness that includes the concept of home. His middle ground requires a critical self-consciousness in which we should look closely "at the part of nature we intend to turn toward our own ends and [ask] whether we can use it again and again and again," and that we should never imagine "that we can flee into a mythical wilderness to escape history and the obligation to take responsibility for our own actions."[310] The middle ground encourages connection to a natural world that is not distant, but rather incorporates a broader understanding of natural areas to include both designated wilderness areas, front lawns, and vacant city lots. The middle ground does address much of the

[308] Azoulay, *Potential History*, 10.
[309] Ibid, 11.
[310] Cronon, 89-90.

distancing from nature that wilderness problematically creates, but it does not go far enough in addressing the settler colonial violence of erasure and removal that wilderness promotes.

Instead, wilderness needs to be unlearned. According to Azoulay, "unlearning is returning to the initial refusal of dispossession and the world out of which it emerged and bringing that moment into our present rather than looking for future, better anti-imperialisms." For Azoulay, unlearning is done through the work, or rather the rehearsals, of potential history, which is a "form of being with others, both living and dead, across time, against the separation of the past from the present, colonized peoples from their worlds and possessions, and history from politics."[311] The rehearsal of disengagement with imperial histories "begin[s] by replacing the imperial impulse to innovate with a shared right to participate in the common."[312] Though up to this point I have presented Bigfoot witness photography as seeking to reiterate the myth of the American West, the rugged individual, and a pristine or pure wilderness, here I want to consider how such imagery might be conversely read. That is, thinking through Azoulay's potential history in relation to Bigfoot witness photography, how might we see such images *not* as replicating the colonizing discourse of discovery and erasure, but as imagery that refuses to picture wilderness, and in so doing rejects (or unlearns) the violent histories associated with its creation.

Bigfoot witness photographs play with the concept of indexicality in ways that create opportunities for unlearning wilderness. According to Charles Pierce, indexicality is the nature of signs that have a material relation to the objects they signify. This could be a knock on a door

[311] Azoulay, *Potential History*, 43.
[312] Ibid, 43-44.

signifying a visitor, or footprints left behind on land signifying an actual creature.[313] Indexicality is also what provides photography its evidentiary claims as the photographic image is materially connected to its referent and is often thought of as a record or trace of what was in front of the camera lens at a particular time and place. As Kris Paulsen writes: "photographic theory has typically understood indexical signs as material traces of past moments of physical contact that therefore provide incontrovertible evidence of some existential truth."[314] But, as Pierce describes, the index itself is not always material. It is a trace of the material (like a knock on the door) – and does not always signify the reliable existential truth typically afforded it. Photographs can have shifting and compounding meanings depending on context and interpretation and not always on the materiality of the index.[315]

Even with these challenges to indexicality, however, it remains generally agreed upon that with analog technology, prior to digital manipulation, it is impossible to photograph an index that has no actual referent in the physical world. In relation to my discussion here, as Bigfoot's physical body remains out of sight, Bigfoot photography relies on indices of her existence, such as footprints and casts of those footprints, as well as images of witnesses who, within this genre, become, in the act of being photographed another kind of indexical representation pointing to the existence of an unseen referent: Bigfoot. Indeed, such witnesses are often photographed outside pointing toward the now empty location where they once witnessed Bigfoot, a gesture designed to reiterate their witness testimony as proof. This kind of indexical witness still lacks, however, materiality that lends credence to truth claims. In their exhibition displays, the International Museum of Cryptozoology in Portland, ME, founded by Bigfooter Loren Coleman, plays with

[313] My reading of Pierce and the subsequent complication of the index are influenced by Terri Weissman, "Whose Streets? Police Violence and the Recorded Image," *Arts* 8, no 155 (2019) and Kris Paulsen, *Here/There: Telepresence, Touch, and Art at the Interface,* (Boston: MIT Press, 2017).
[314] Paulsen, 19.
[315] Ibid, 23.

these ideas of indexicality and materiality. Instead of displaying photographic evidence of Bigfoot in their exhibit on the Patterson-Gimlin film, the museum displays the most material evidence they can: the original film canister and reel containing the footage (Figure 63). In the absence of physical evidence, the film canister itself stands in – not just for the photographic evidence – but for the body of Bigfoot. Like footprint casts, or even the pointing witness, the physical film footage and canister create the indexical traces to the event of the filming, in ways that are more material, and the exhibit designers hope, more evidentiary. The referent that Bigfoot photography, and even this film canister, really point to is not the body of the cryptid, however. Because of the symbolic connection between Bigfoot and wilderness, the referent becomes instead the overall mythology of Bigfoot and the lasting settler colonial resonance that mythology has.

Bigfoot witness photographs are examples of shifting indices that begin to challenge that mythology. Looking at the photographs of witnesses like Farrel Shook (Figure 52), a traditional interpretation would indicate that the indices of this image, on the simplest level, point to the referents of a man holding a young child, standing out of doors. Yet, the event that this image tries to picture is not the event of the photograph, but rather the event of the Bigfoot sighting, through its retelling by the witness. But what do these witness photographs actually show? This image, of Shook, as well as other witness photographs discussed below, does not actually reveal much about the event it is recounting, nor even about the witnesses themselves. Instead, the image lacks the very subject it is trying to picture. Thus, more than "prove" Bigfoot's existence, these images, lacking the actual referent or the event they are trying to depict, reveal the instability of the photograph's evidentiary qualities, and relatedly, the instability of the wilderness mythology upon which Bigfoot was founded.

In the absence of physical material evidence, Bigfoot researchers' claims of the existence of Bigfoot rely on eye-witness accounts of the cryptid. Hoping to capitalize on the evidentiary nature of photography, these eye-witness accounts are frequently accompanied by these witness photographs. In many cases, like in the photograph of Verdell Veo (Figure 54), these witnesses hold further indexical traces of the stories they tell: casts of Bigfoot tracks. Many, however, are simple portraits, like the photographs of Farrel Shook (Figure 52) or Mr. and Mrs. Bellvue (Figure 64). The Bellvues were photographed in 1966, when recounting their Bigfoot story to Dahinden about seven years after their sighting. Recorded here is not the couple's experience with Bigfoot, but rather the retelling of that experience. Much Bigfoot photography, like this picture of the Bellvues or Veo, simply attempts to show viewers that Bigfoot witnesses are not crazy. Or in the instance of Veo, are especially credible because of their profession (in his case, as a police officer) and are more like the rest of us than we would initially think.

But as I have been arguing, Bigfoot witness photography also attempts to act as evidence itself. Relying on the special relationship with the "real," that is, that photographic images represent that which once stood before the camera to provide this evidence, Bigfoot photography frequently returns to the scene of the sighting to depict at least the setting of the event it is trying to capture. Like the measuring tape used by Patterson and Dahinden, some witnesses rely on measuring implements, presented to the camera in the location of their Bigfoot experience, to create indexical traces of Bigfoot in photographs. In 1979, 16-year-old Tim Meissner reported seeing Bigfoot (as well as a deer with a broken neck that a Bigfoot allegedly left behind) two times in just three days. Meissner even claims to have shot at the creature, but figured he missed, since no body was found. Just days after the sightings Meissner returned to the woods in which he saw Bigfoot near Dunn Lake in British Columbia with Bigfoot researchers, including René

Dahinden[316] Figure 65 shows a photograph of Meissner, by Dahinden, holding his gun to the height at which the creature stood. An unnamed figure stands on the other side of the tree mirroring Meissner's gesture, gazing casually yet intently at the teenager. Meissner, by contrast, looks directly at the camera as he recounts—even performs— the tale of his encounter with Bigfoot with his body replacing that of Bigfoot's. Here, Bigfoot becomes physically present—even embodied – in the account of the witness. Bigfoot is present in this image through Meissner.

Richard Brown, a high-school music teacher who saw Bigfoot crossing a field near his Oregon home in 1971, was also photographed by Dahinden at the spot of his sighting (Figure 66). Like Meissner, Brown holds his rifle aloft, but instead of using the gun to represent the size of the creature he witnessed, he rests the butt of his rifle on his thigh, so the barrel points out towards the field he observed Bigfoot cross. Standing just alongside a barbed wire fence, Brown is not in a wild or pristine landscape. Like Meissner, however, Brown clings to his weapon in an effort to enact the rugged individualism of the wilderness ideal. A hand casually rested on his hip, Brown's posture tells viewers that, while there is no dangerous animal in this field, if there were, he could handle it. However, in Brown's recollection of his Bigfoot encounter, in which he claims to have watched the creature cross this field through the scope of his rifle, he was unable to fire at it, because of how human-like it appeared.[317]

In a 1977 photograph, a Mr. Sites points to damage on a barn on his New Jersey Farm allegedly caused by a red-eyed Bigfoot. Sites' narrative tells of a huge, red-eyed Bigfoot who terrorized the family for several nights, killing a handful of rabbits, attacking the family dog, and scaring the family enough that the children were sent to stay with relatives. The photograph

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[316] Bord and Bord, 165.
[317] Ibid, 123.

(Figure 67) shows Sites, cigarette hanging from his mouth, pointing to a hole in the siding of the barn, just below the frame of a window covered in chicken-wire. This damage was deemed definitive evidence of Bigfoot's presence by expert investigators from the Society for the Investigation of the Unexplained, who claimed they saw apparent scratches on the outside of the barn.[318] When these same investigators visited the farm armed with cameras, Bigfoot of course did not appear, and they were left to photograph the vestigial evidence.

Unlike other Bigfoot witnesses, Sites is shown at close range, tightly framed within the image so that the damage caused to his barn can be seen in detail. Bigfoot, a creature meant to wander the broad, undiscovered wildernesses of the United States, is evidenced here for her transgressions into civilization. But, Bigfoot does not leave behind physical evidence to be photographed, only absences. Instead of trying to use his own body and rifle, like Meissner, to replace the body of Bigfoot, or simply standing in front of an open field, like Brown, Sites directs the viewers specifically to a hole in the image. It is as if the hole itself, the absence, is meant to evidence Bigfoot. By pointing to the empty space on his barn wall, Sites also reveals, in a sense, the lack of physical evidence, outside of his own presentation, narrative, and interest in upholding a settler colonial myth.

Charles Jackson, like Brown and Sites, similarly gestures to an emptiness meant to recall the story of Bigfoot. According to Jackson, around 9:30 on the night of July 12, 1969, he was in the backyard of his home near Oroville, CA, burning rabbit entrails with his six-year-old son, Kevin. Suddenly, they heard a noise behind them and turned to see a 7- or 8-foot-tall Bigfoot standing about 15 feet away. Jackson later reported that the creature did not seem alarmed, but rather interested in what they were doing. His immediate instinct, however, was to get himself and his son into the cover of their house, where he found his usually fierce dogs cowering under

[318] Ibid, 150.

the furniture. Jackson called the police who were, according to Jackson, reluctant to go out late at night to look into monster reports yet agreed to investigate the next morning, at which point they found no trace whatsoever (not even footprints) of the creature. Later that same month, Homer Stickley, who lived on the same road as Jackson, also saw a Bigfoot in his yard and reported that several bushels of apples were stolen from his trees one night.[319]

In Dahinden's photograph, Jackson (Figure 55), like other witness images, gestures to the spot on his property where he, Jackson, saw the Bigfoot. The photographer and his subject likely want this image to serve as evidence of the sighting Jackson described; they hope to recreate in time and space the event of its happening. Jackson, with his hand firmly on Kevin's shoulder, gestures towards the spot in the yard where they saw the creature, locks eyes intently with the camera. He gestures with an open palm back into the blank space of the middle of the photograph, to the site where he allegedly saw Bigfoot. Kevin, however, seems to undermine the importance both of his father's gaze and gesture, as he looks neither at the spot where Bigfoot stood, nor towards the camera documenting this recreation of the important event. Besides the shed, the yard is mostly empty; the two figures stand in unkempt grass, and above them, the whole picture is framed by scraggly branches reaching down from outside the frame.

Jackson's yard, which connects the faint traces of power lines above his head to the dense woods beyond the white space of grass he points to, can be considered exactly the kind of middle ground Cronon referred to. In fact, the photograph itself is shot at middle distance, emphasizing the space of the middle ground. The exposure of the photograph, which places Jackson and Kevin under shadow, overexposures the sunlit yard, depicting the yard space between Jackson and the woods as a stark white blankness. Here, again, Jackson is pointing to the absence that is meant to be evidence for Bigfoot. These spaces like Cronon's middle ground, Jackson's yard,

[319] Ibid, 108.

Brown's field, and Sites' barn become interstitial spaces that, instead of replicating the wilderness narratives that attempt to separate nature and culture, point to the emptiness of those mythologies. The definition of wilderness is as something separate from humanity, space that seems to stop being wilderness the moment humans intrude upon it. But such space only exists in the imaginary and can only be gestured to as the empty spaces just beyond the fence, or the shed, or even through the hole in the wall. Like Bigfoot, wilderness does not exist, and can only be represented by these holes and empty spaces in the photographs. By directing viewers to the empty spaces of the image, and claiming these absences as evidence, Bigfoot witness photographs destabilize the evidentiary nature of the index. In turn, this destabilization questions the wilderness Bigfoot symbolizes. This destabilization is part of the process of unlearning wilderness.

Bigfoot cannot, of course, be photographed because she does not exist, *but* her mythology remains, and therefore, in this space of unreality. exists enough. Bigfoot is in the gesture of Jackson's hand, in the empty space behind him, in the "this could be" of his convictions. But by refusing to see Bigfoot as her witnesses ask us to, if we see her as she is in this photograph—as an absence, present only in the interstitial void created by the blank whiteness that transverses the picture plane, then we can begin to undo the work that is performed by both Bigfoot and wilderness mythology. This is a photograph of Bigfoot because she can only be pictured as that space in between, she always "could be" but never was, and never will. This is an image not just of Bigfoot as a creature, but of Bigfoot as a myth, and a way to recapture the fantasy of the wilderness. By working to unlearn wilderness, these witness photographs can be understood not to gesture to Bigfoot as the referent, but rather to her lack, to the void created by her absence in the image. In this way, the wilderness that Bigfoot represents can also be seen, not only as a

middle ground, but also within the void created by the image. It is also a void, I argue, in which wilderness exists, not as a location or moment in time to which we can return, but as a myth that never existed.

Conclusion

Through their attempts to picture an index that has no referent, Bigfoot witnesses instead produce images that display the fraught nature of these beliefs. Instead of a wilderness that exists in binary opposition to culture, Jackson and Sites gesture towards a void that is at the interstices of nature and culture, and of animal and human. This is the same interstitial space which also, to some extent, creates Bigfoot – though she has been used to reify binaries, she in fact challenges them by being neither animal nor human, neither fully wild nor cultured. Bigfoot is neither fact nor purely fiction. We can find her in moments like the photograph of Charles Jackson, or the stories of photographs told by witnesses, and of course, we can find her, physically represented at times, no matter how unreal, in moments like the Patterson-Gimlin Film.

Bigfoot, striding across the frame in the shaky footage of the Patterson-Gimlin Film, is not simply a well-played hoax. But many of us, no matter how skeptical, for the first instant we see that film entertain its reality, and it is that moment of questioning, which happens by feeling the footage, that holds the disruptive potential of Bigfoot. While you may instantly regain the understanding of the hoax, the Patterson-Gimlin Film forces you, just for a moment, to question your reality, as well as traditional knowledge production, and the construction of the American wilderness. If this could be, then so could anything else – and perhaps the things that have been photographically evidenced before, have just as questionable an index as Patterson and Gimlin's creature.

Patterson-Gimlin's Bigfoot then, an index without a referent in the real world, points to her own absence, to the void in the Jackson photograph. As a species, and a society, we have created Bigfoot, but now that she is here, we must contend with her. By unlearning the archive of images of Bigfoot, we are forced into some, if even momentary, relation with her. She is a product of our culture and our nature, or as Haraway names it, our natureculture,[320] and can signify an ethical relating akin perhaps to Cronon's middle ground. Maybe Bigfoot has actually always been our companion species, and we've relied on each other for our continued existences. Except for the fact that Bigfoot doesn't exist.

I think maybe, as I see Bigfoot glance back at the camera in Frame 352 of the Patterson-Gimlin Film, that all she is asking for is to exist. To exist not in the world outside, but in the weird space where she is, in the void of the photograph – disrupting both our understandings of ourselves and the formations we have created of the wilderness. Bigfoot is here, striding across Bluff Creek, reminding us that we know just as little about the natural world in the remote forests of Northern California as we do about the natural world that lives in the sidewalk cracks of our local suburbs. The wilderness is the home of Bigfoot, and she will not allow it to be purely a site of patriarchal colonial domination, but instead a middle ground of ethical relating, diverse human histories, possibility, a site of refusal, and of potential history and unlearning. Bigfoot lives on precisely because she never really lived, in order to continually suspend both our belief and our disbelief, muddy up our cultural understanding of ourselves and the natural world we've invented. She is neither real nor unreal – but creates a space of unreality and unlearning in the interstices of our regular knowledge production.

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[320] Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness,* (Chicago: Prickly Paradigm Press, 2003)

FIGURES

Introduction Figures

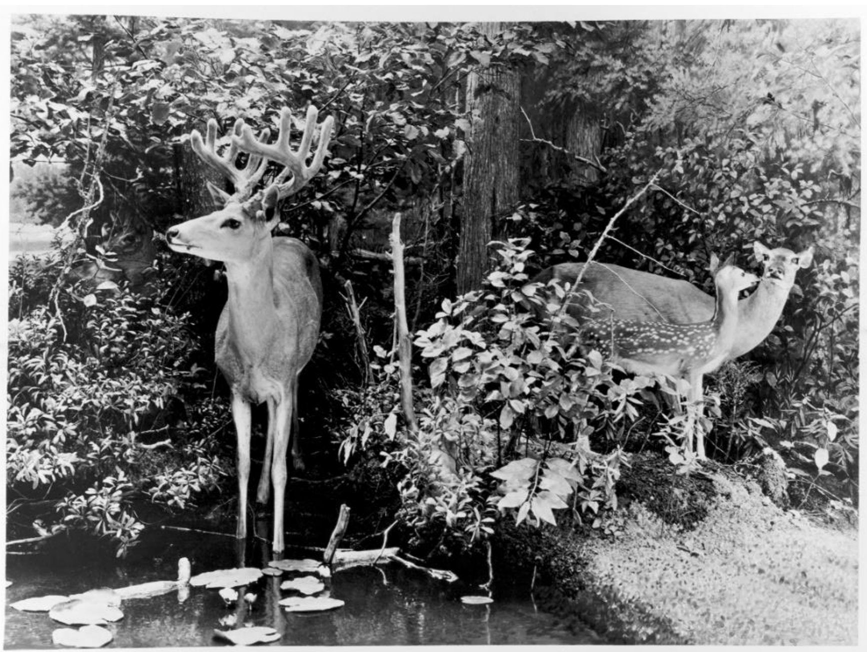

Figure 1: Carl and Delia Akeley, "Four Seasons of the Deer: Virginia Deer in Summer," 1898, The Field Museum, Chicago

Figure 2: Ansel Adams, *The Tetons and Snake River, Grand Teton National Park, Wyoming*, 1942, gelatin silver print

Figure 3: Edward S. Curtis, *Offering the buffalo skull – Mandan*, c. 1908, gelatin silver print

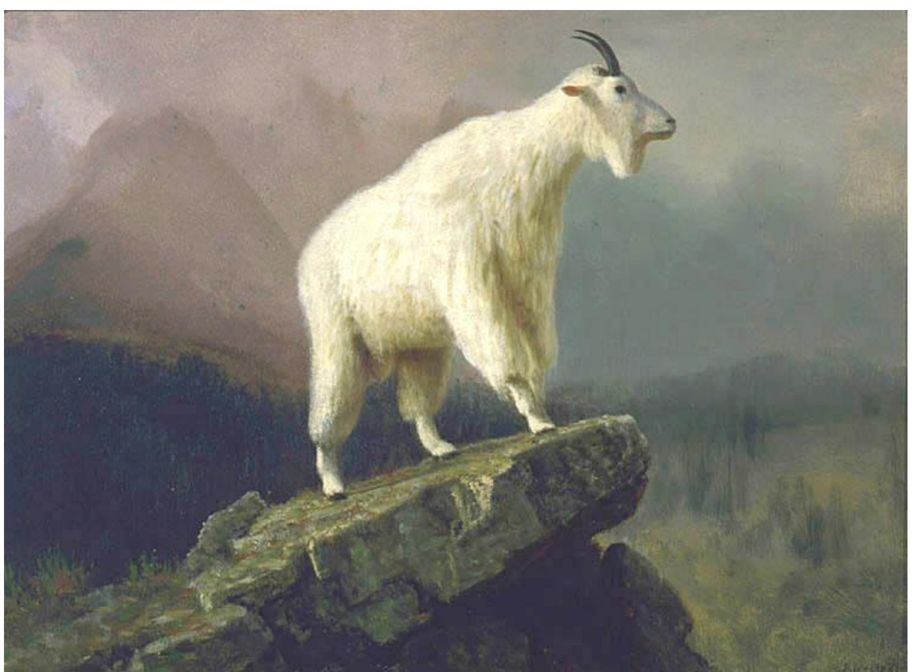

Figure 4: Albert Bierstadt, *Rocky Mountain Goat*, 1875, oil on paper mounted to linen

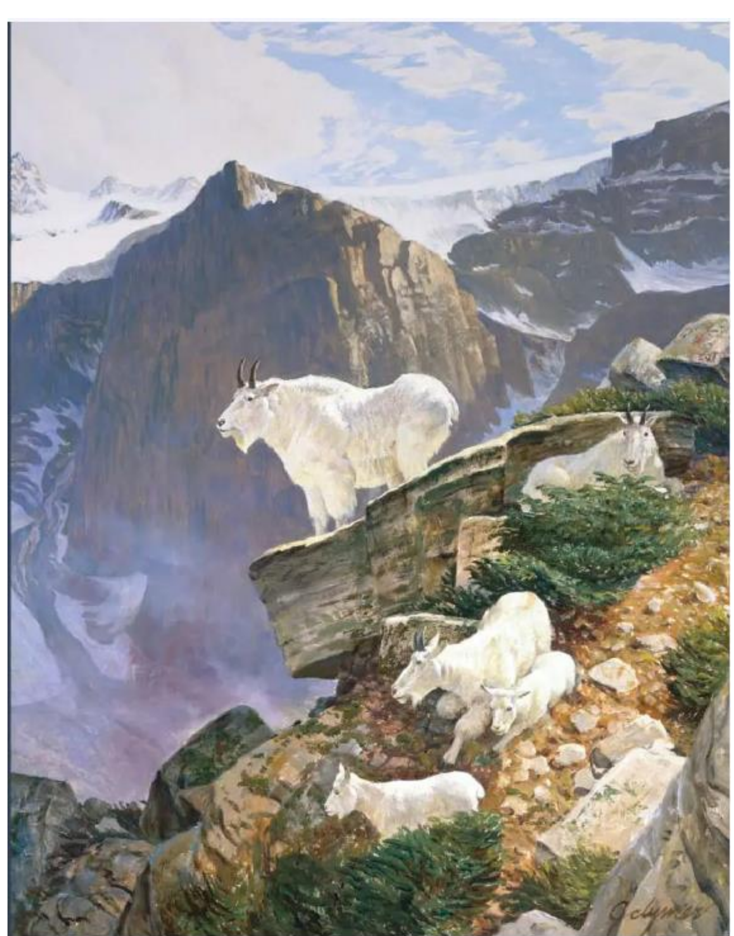

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Figure 7: George Shiras, "An 85 pound timber wolf was caught on a deer runway," 1907, from *Hunting Wild Life with Camera and Flashlight,* 1936, p. 264

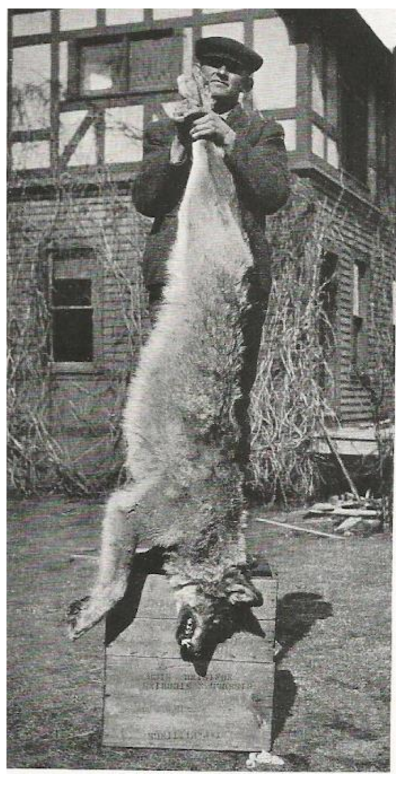
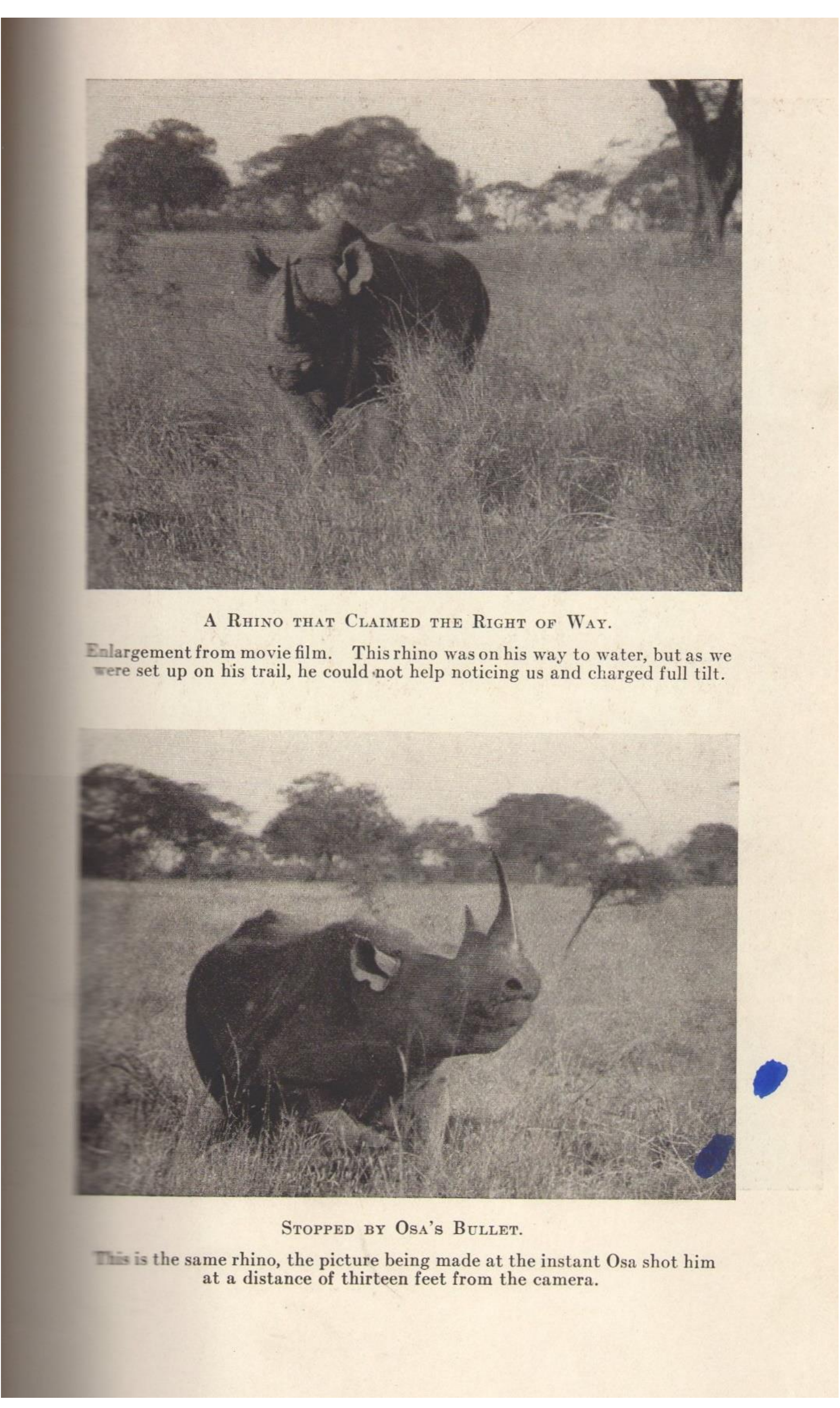


Figure 8: George Shiras, "He preyed no more on deer," date unknown, *Hunting Wildlife with Camera and Flashlight*, 1936, p. 235

Figure 9: George Shiras, "These Timber Wolves were Killed near Whitefish Lake," date unknown, *Hunting Wildlife with Camera and Flashlight*, 1936, p. 266

Figure 10: George Shiras, "The Arch Destroyer Menaced Game on Grand Island," c. 1896, *Hunting Wild Life with Camera and Flashlight*, 1936, p. 265.



A Rhino that Claimed the Right of Way.

Enlargement from movie film. This rhino was on his way to water, but as we were set up on his trail, he could not help noticing us and charged full tilt.

Stopped by Osa's Bullet.

This is the same rhino, the picture being made at the instant Osa shot him at a distance of thirteen feet from the camera.

Figure 11: Martin Johnson, "A Rhino that Claimed the Right of Way," and "Stopped by Osa's Bullet," dates unknown, in *Safari: A Saga of the African Blue*, 128, p. 144

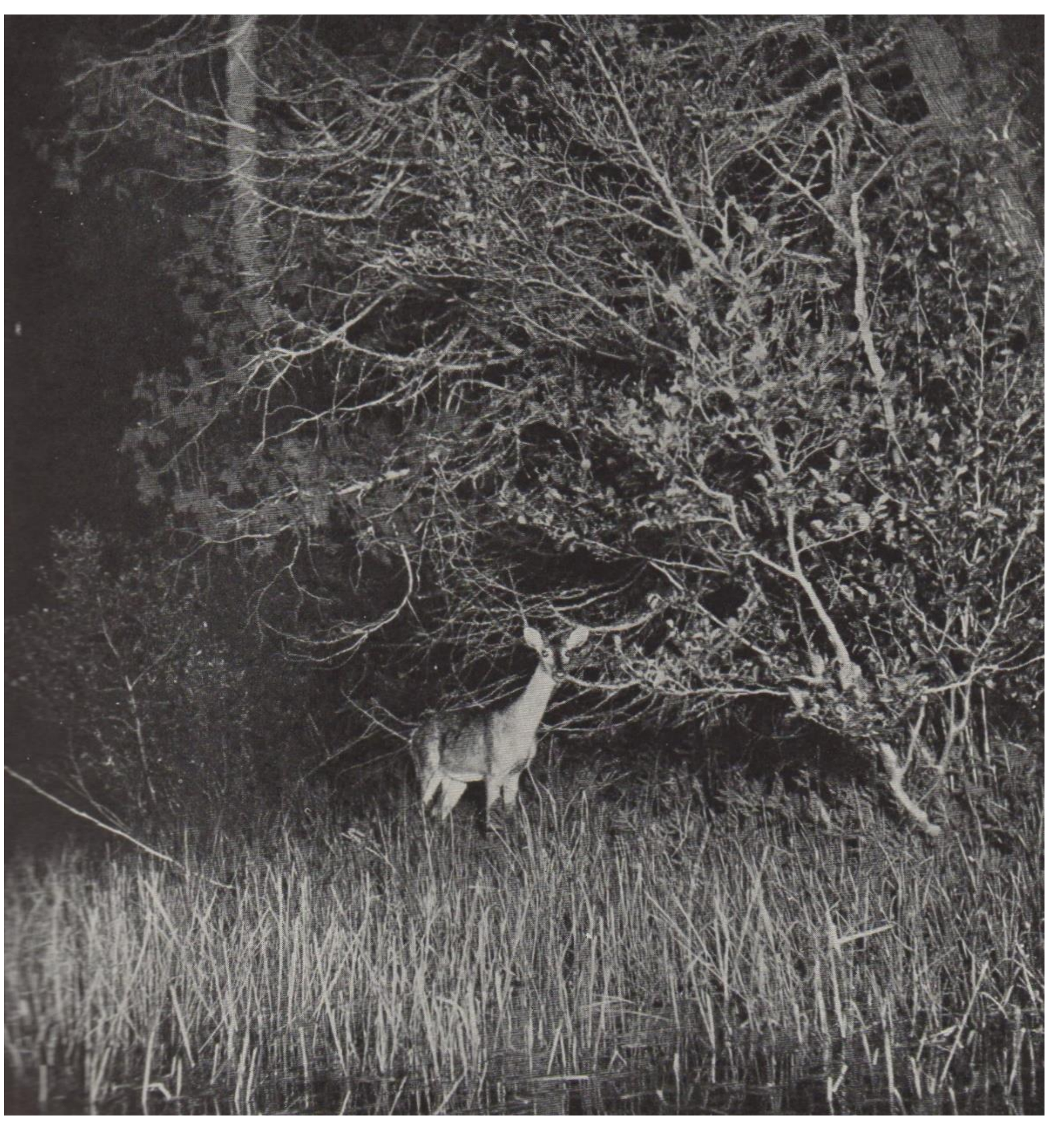


Figure 12: George Shiras, “The First Successful Flashlight Photograph Ever Made of a Wild Animal,” 1893, *Hunting Wild Life with Camera and Flashlight*, 1936, p. 43

Figure 13: George Shiras, “This is the First Night Picture of a Moose Ever Taken,” date unknown, *Hunting Wild Life with Camera and Flashlight*, 1936, p. 154.

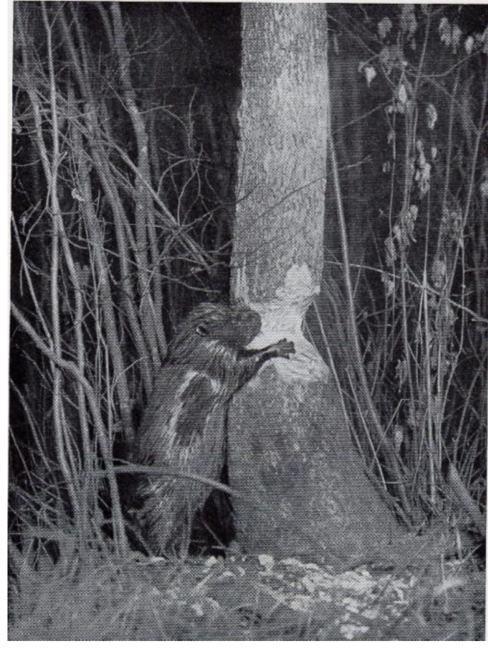


Figure 14: George Shiras, “The First Flashlight Photograph of a Beaver Cutting Down a Tree,” c. 1912, *Hunting Wild Life with Camera and Flashlight*, 1936, p. 305

Figure 15: George Shiras, “Though Unscarred, it was a Victim of Gray Wolves,” c. 1908, *Hunting Wild Life with Camera and Flashlight*, 1936, p. 270

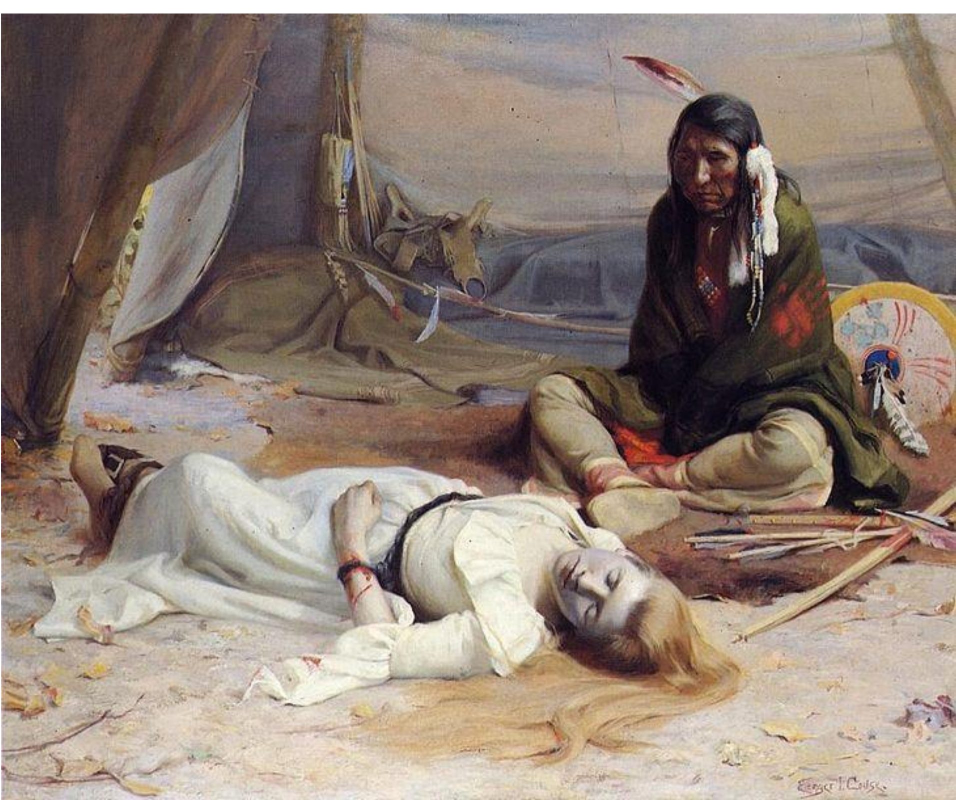


Figure 16: E. Irving Couse, *The Captive,* 1891, oil on canvas, Denver Art Museum

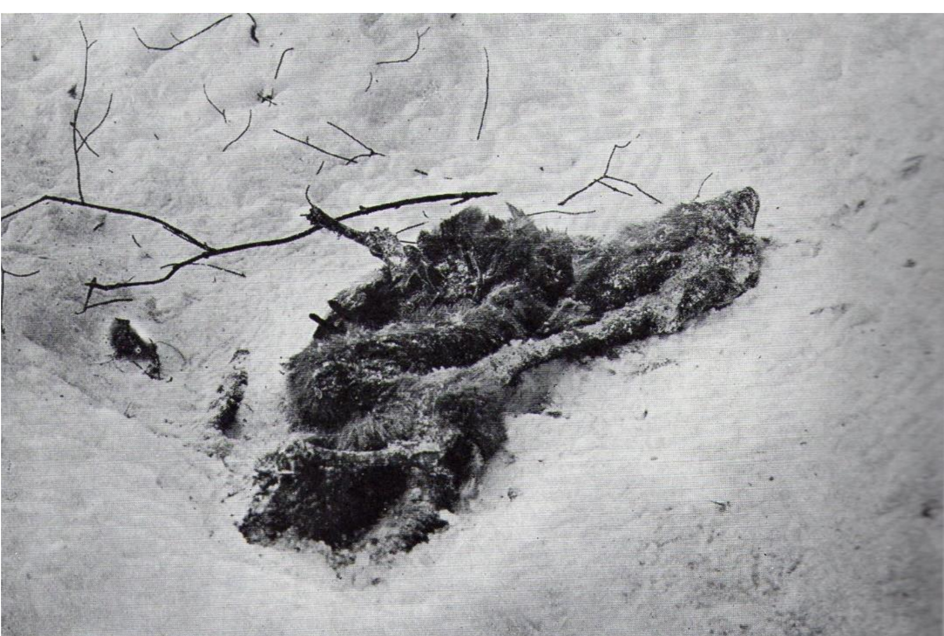
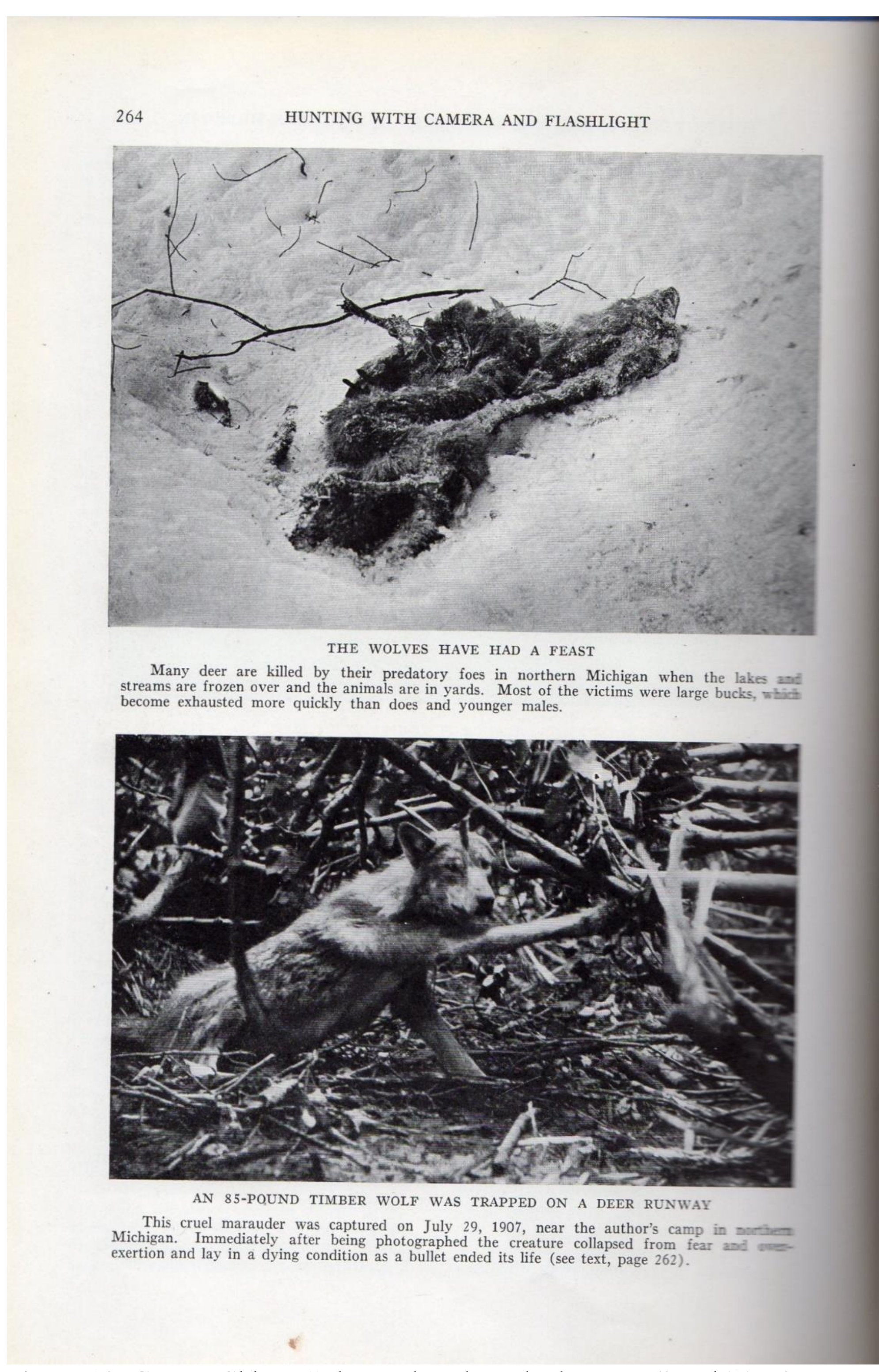


Figure 17: George Shiras, "The Wolves have had a Feast," c. 1908, *Hunting Wild Life with Camera and Flashlight*, 1936, p. 264


264 HUNTING WITH CAMERA AND FLASHLIGHT

THE WOLVES HAVE HAD A FEAST

Many deer are killed by their predatory foes in northern Michigan when the lakes and streams are frozen over and the animals are in yards. Most of the victims were large bucks, which become exhausted more quickly than does and younger males.

AN 85-POUND TIMBER WOLF WAS TRAPPED ON A DEER RUNWAY

This cruel marauder was captured on July 29, 1907, near the author's camp in northern Michigan. Immediately after being photographed the creature collapsed from fear and over-exertion and lay in a dying condition as a bullet ended its life (see text, page 262).

Figure 18: George Shiras, “The Wolves have had a Feast,” and “An 85-pound Timber Wolf was Trapped on a Deer Runway,” in *Hunting Wild Life with Camera and Flashlight*, 1936, p. 264

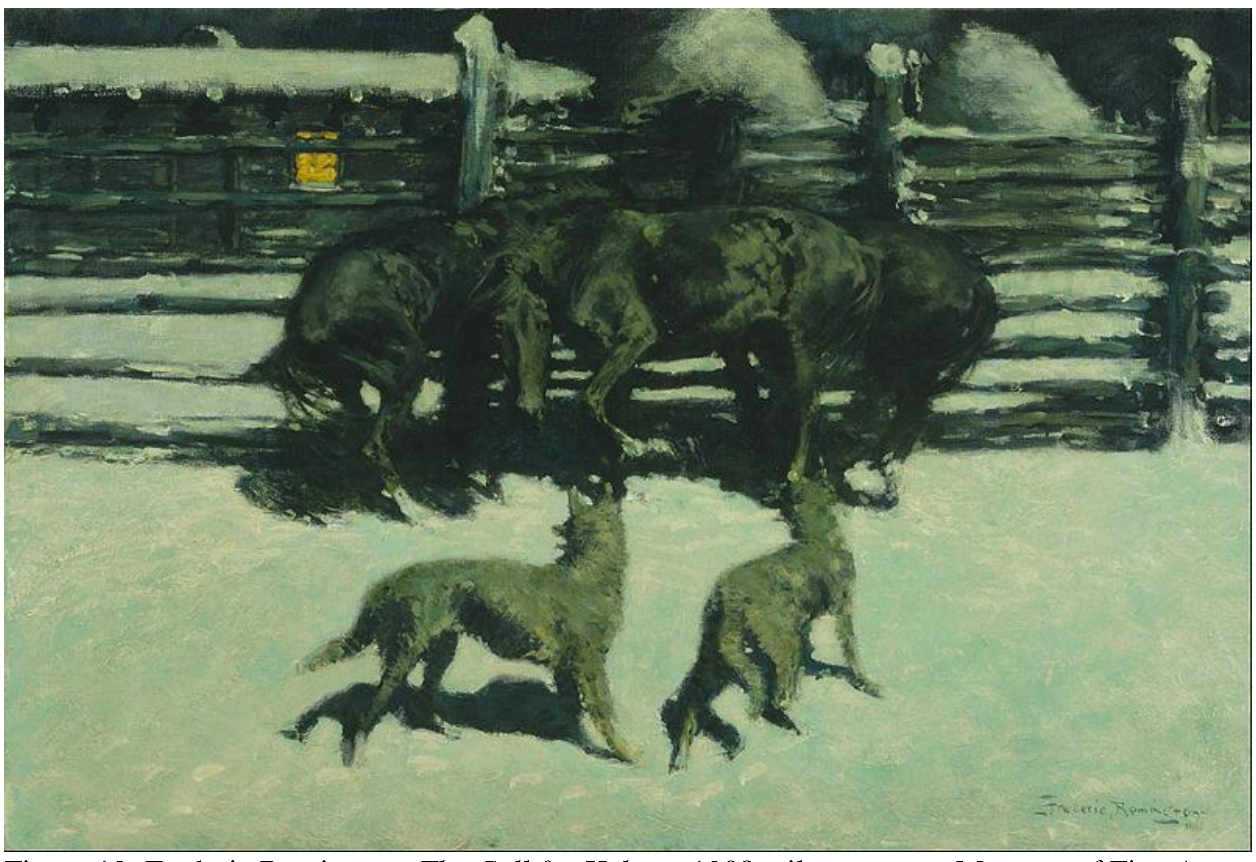


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Figure 22: Carl Rungius, Big Horn Sheep tied up for sketching, n.d., Glenbow Museum Archives

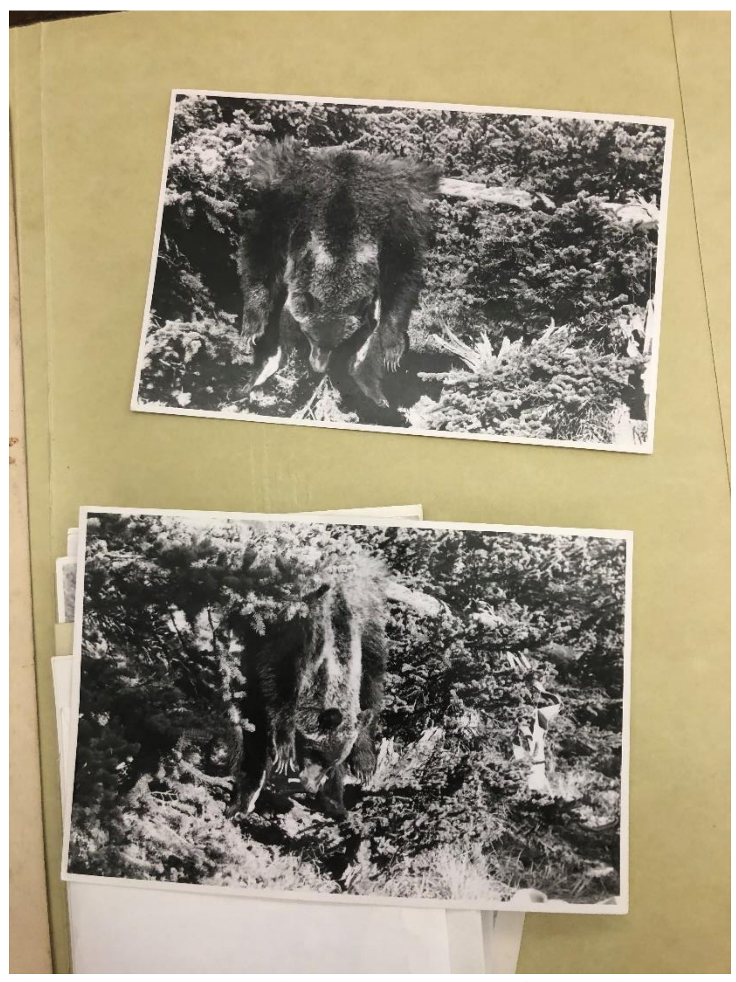

Figure 23: Carl Rungius, photographs of bear hide, n.d., Glenbow Museum Archives

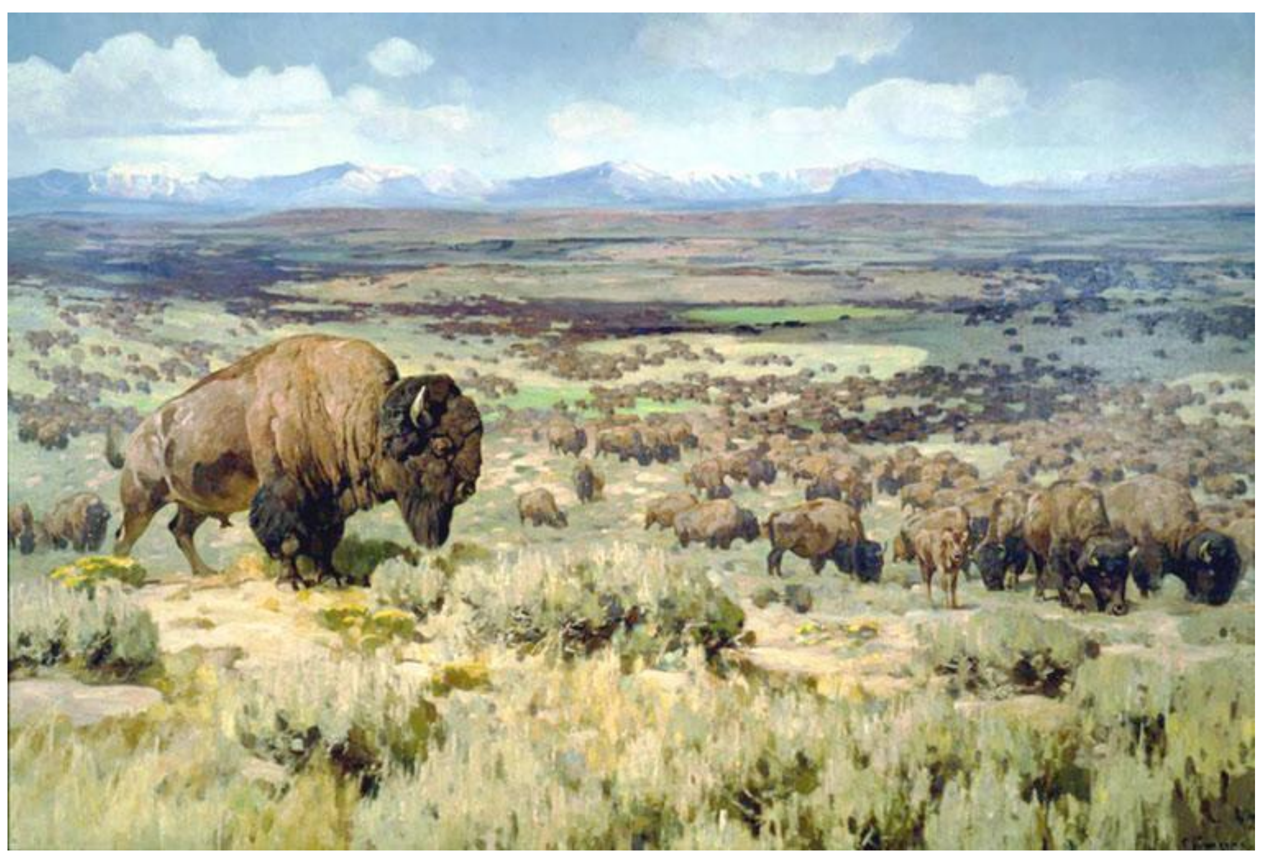

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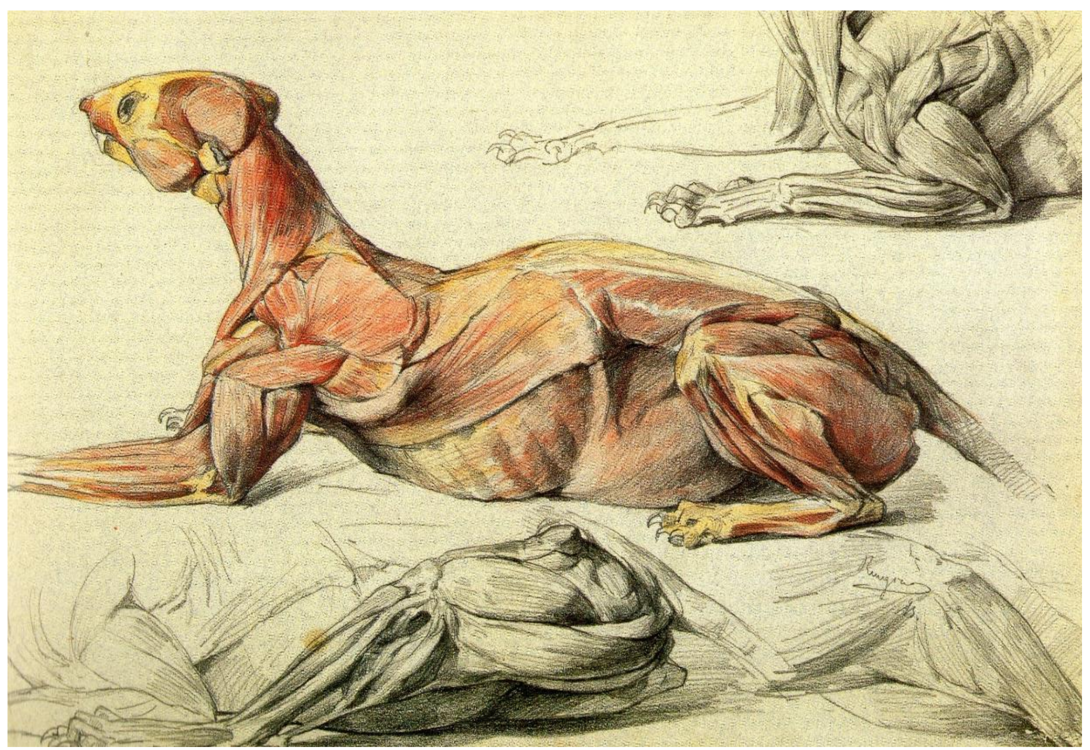
Figure 25: Charles Knight, Woolly Mammoth mural, 1929, The Field Museum, Chicago



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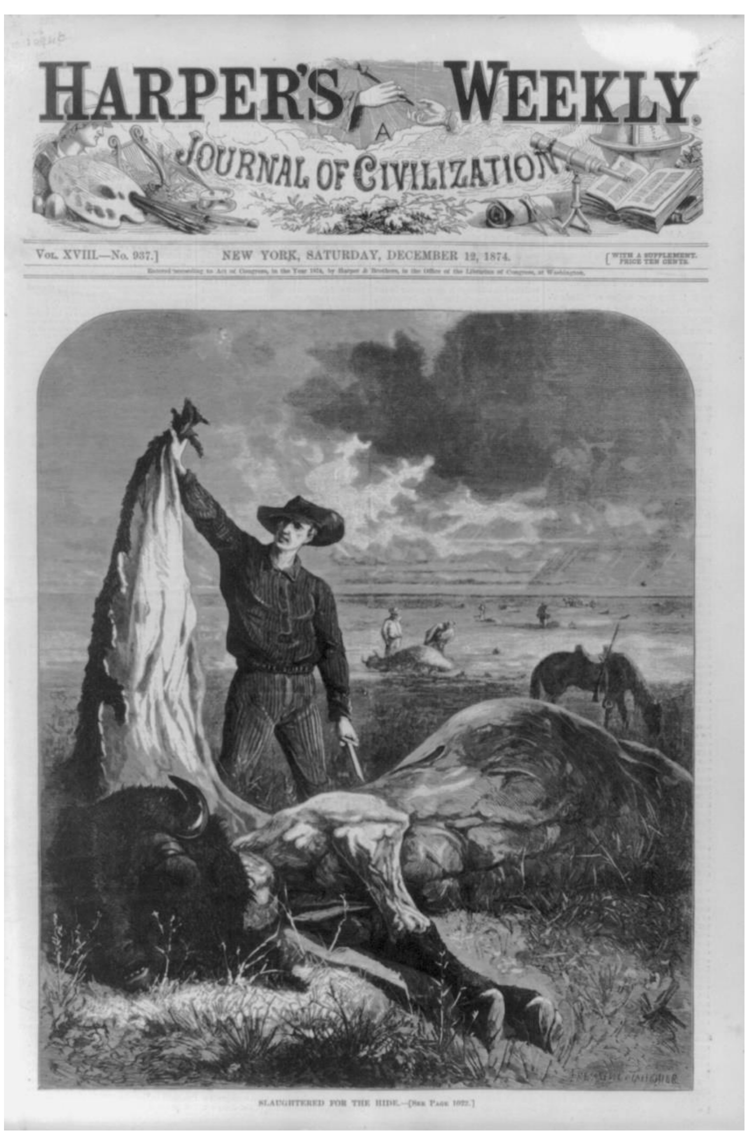
HARPER'S WEEKLY.
A JOURNAL OF CIVILIZATION.

Vol. XVIII.—No. 937.] NEW YORK, SATURDAY, DECEMBER 12, 1874. [WITH A SUPPLEMENT. PRICE TEN CENTS.

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Figure 28: cover of December 12, 1874, *Harper's Weekly*, "Slaughtered for the Hide."

Figure 29: James Henry Moser, *The Deadly Still-Hunt,* 1888, oil on canvas

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Figure 33: Frederic Remington, *Buffalo Hunt*, c. 1890, oil on canvas, Buffalo Bill Center of the West

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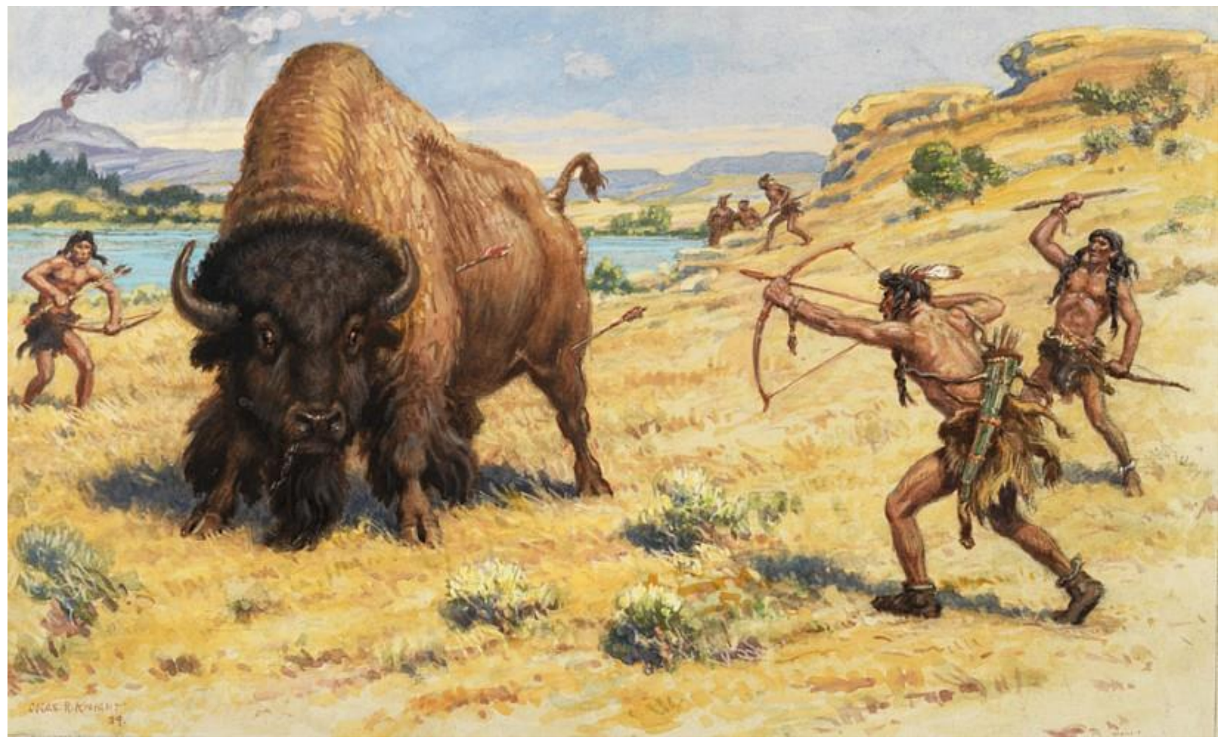

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Figure 36: Charles R. Knight, “Dawn Man Evolving Means of Attacking the Mammoth,” drawn for *McClure’s Magazine*, “The Dawn Man,” by Hugh Weir, 1923

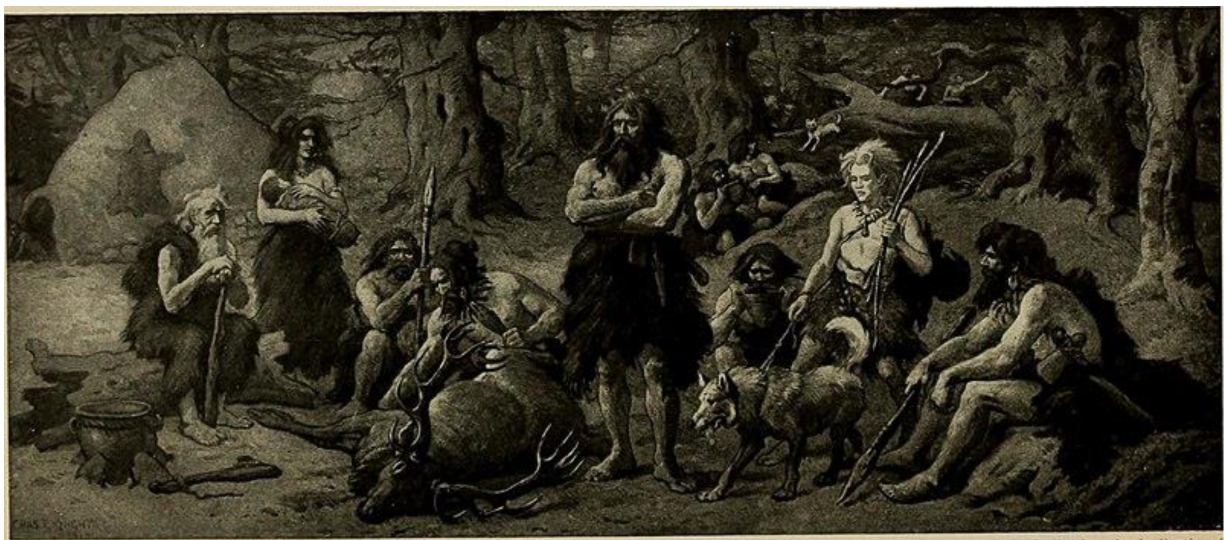
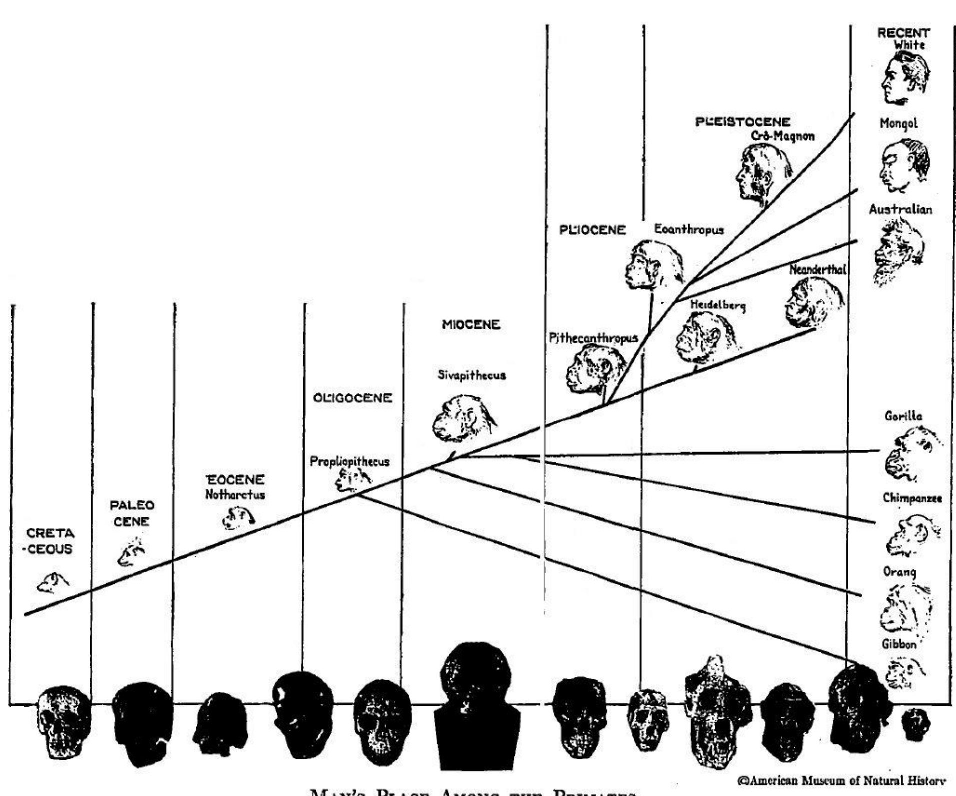


Figure 37: Charles R. Knight, “Stag hunters of the New Stone Age,” drawn for *McClure’s Magazine*, “The Dawn Man,” by Hugh Weir, 1923



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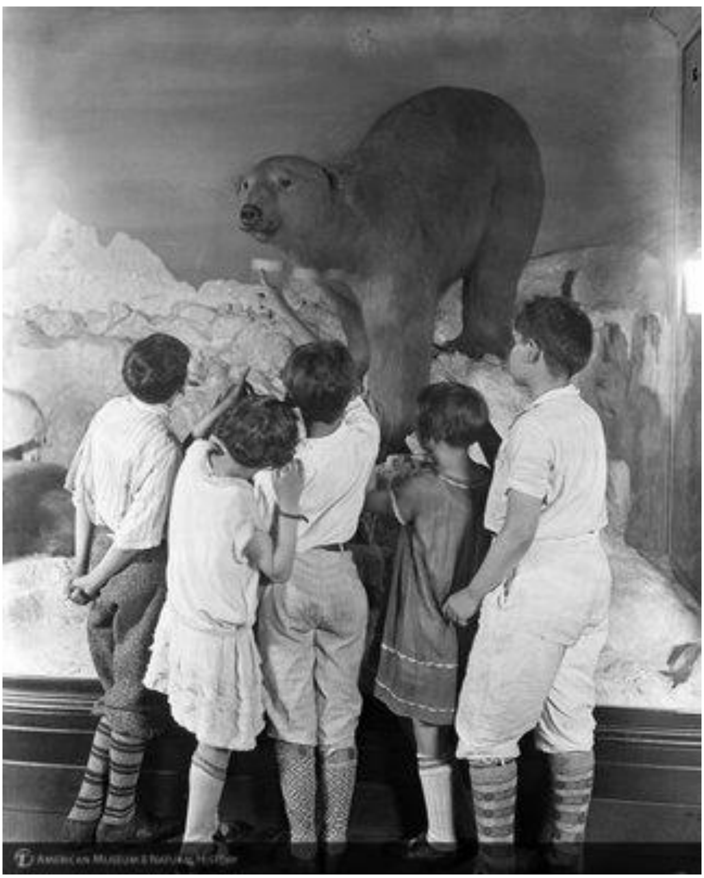

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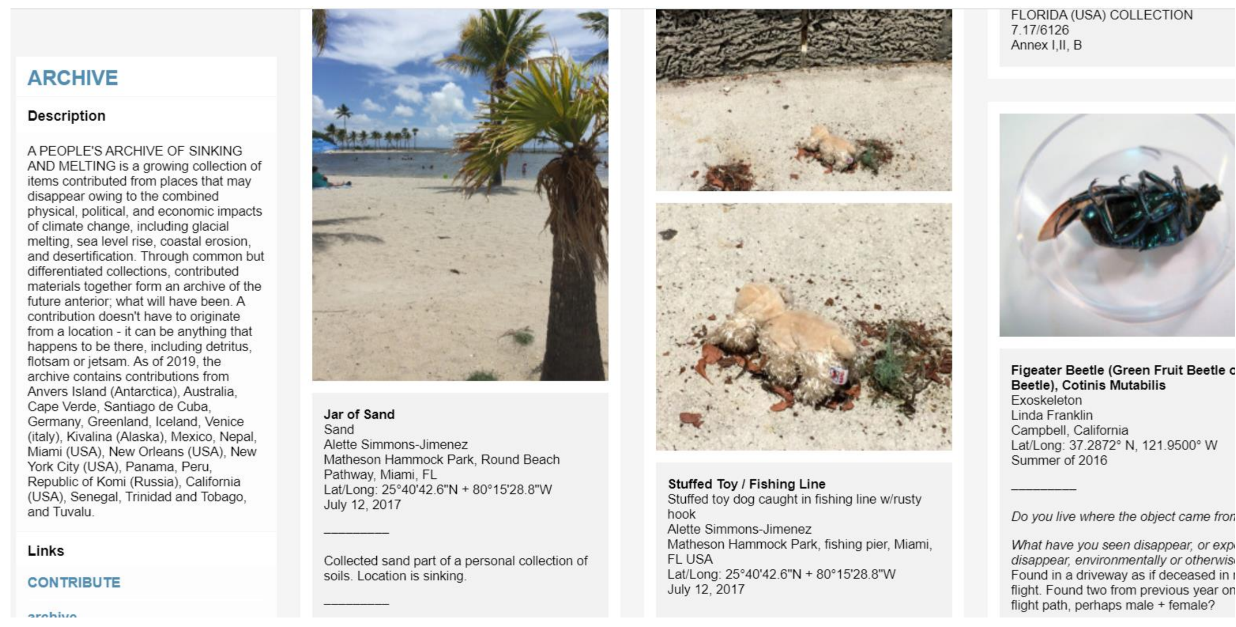

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Figure 47: Alex J. Rota, *Polar Bear Group, bear and seal, Hall of Ocean Life*, 1967

Figure 48: Polar bear group with repainted background (circa 1998) by Sean Murtha, photographs by author

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Figure 49: Hiroshi Sugimoto, *Arctic Ocean,* 1980

Figure 50: Hiroshi Sugimoto, *Arctic Ocean, Nord Knapp*, 1990, printed 1991

Chapter 4 Figures

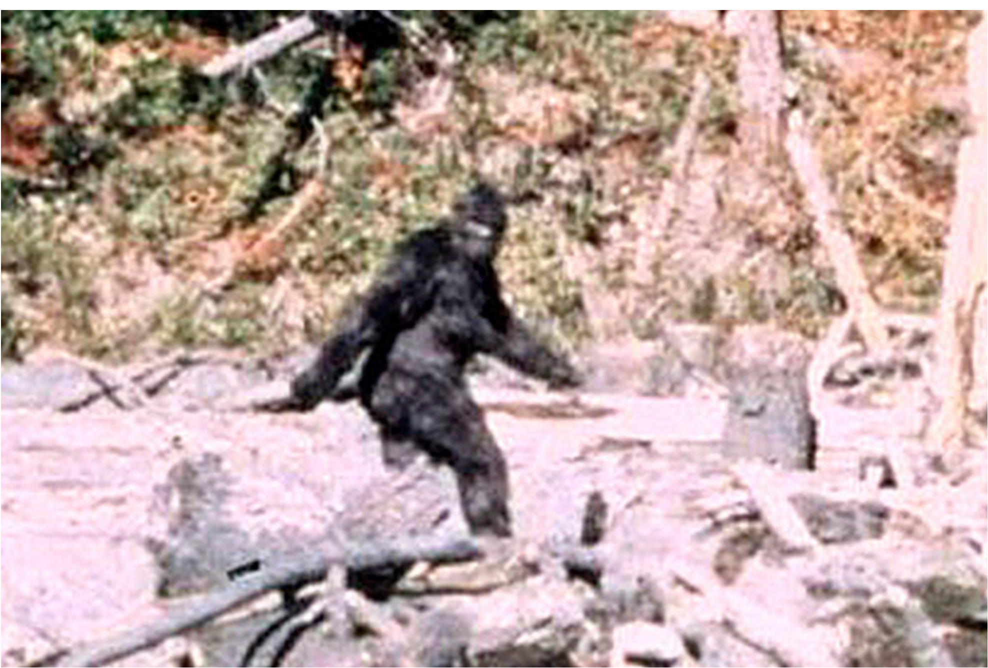

Figure 51: Roger Patterson and Bob Gimlin, "Frame 352," from the *Patterson-Gimlin Film*, October 20, 1967, Bluff Creek CA

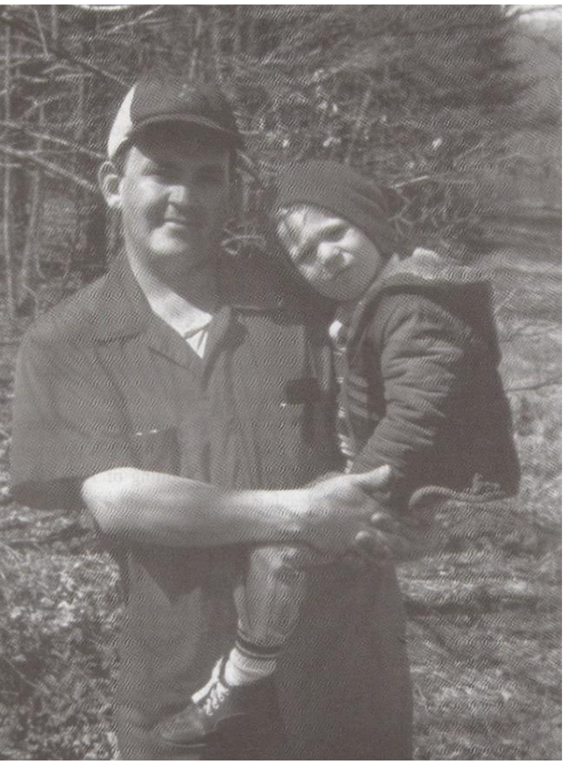

Figure 52: Tony Healy, "Farrel Shook," 1978

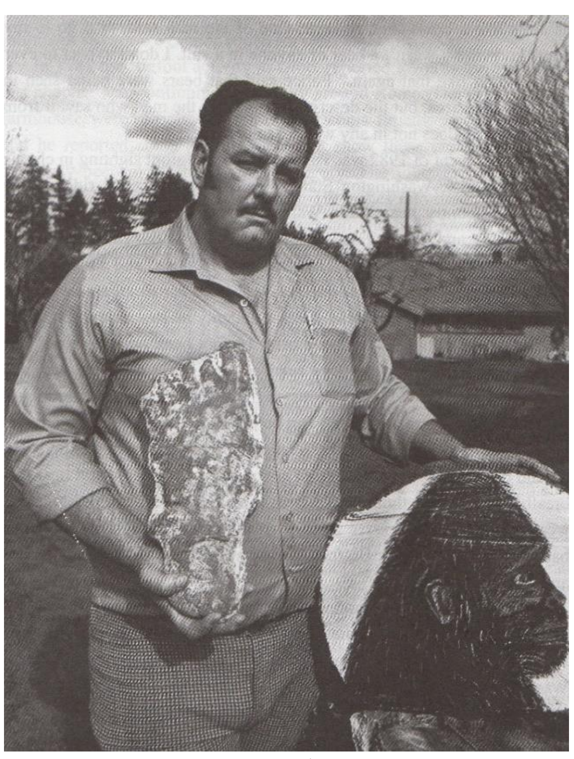

Figure 53: René Dahinden, “Paul Freeman,” 1982

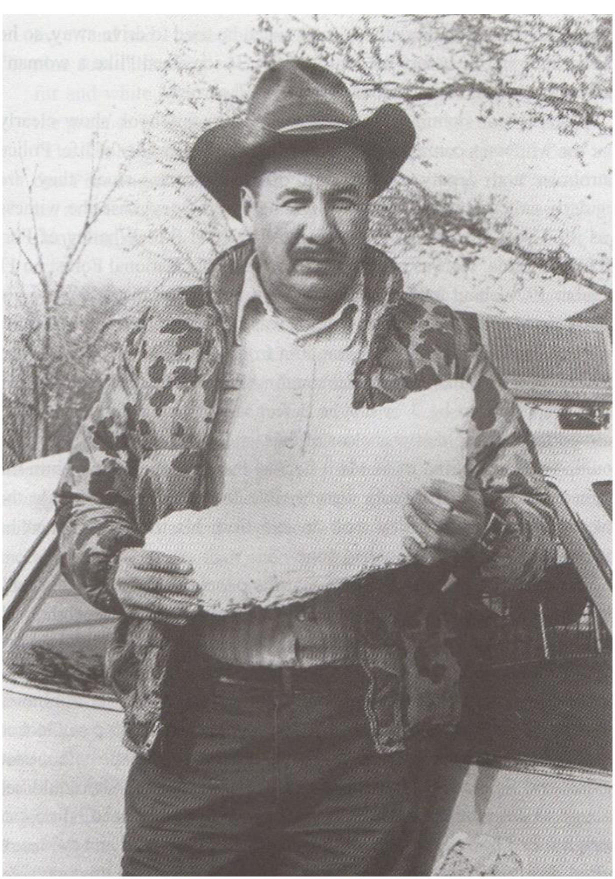

Figure 54: *The Mobridge Tribune* (South Dakota), “Police Officer Verdell Veo,” 1977

Figure 55: René Dahinden, “Charles Jackson and his son Kevin,” 1969

Figure 56: Still from: Keep America Beautiful ad campaign, 1971

Figure 57: February 1968 *Argosy* cover, and detail.

Figure 58: Thomas Moran, *Grand Canyon of the Yellowstone*, 1872

Figure 59: detail of Thomas Moran, *Grand Canyon of the Yellowstone,*1872

Figure 60: Photographer unknown, "Roger Patterson and René Dahinden," date unknown

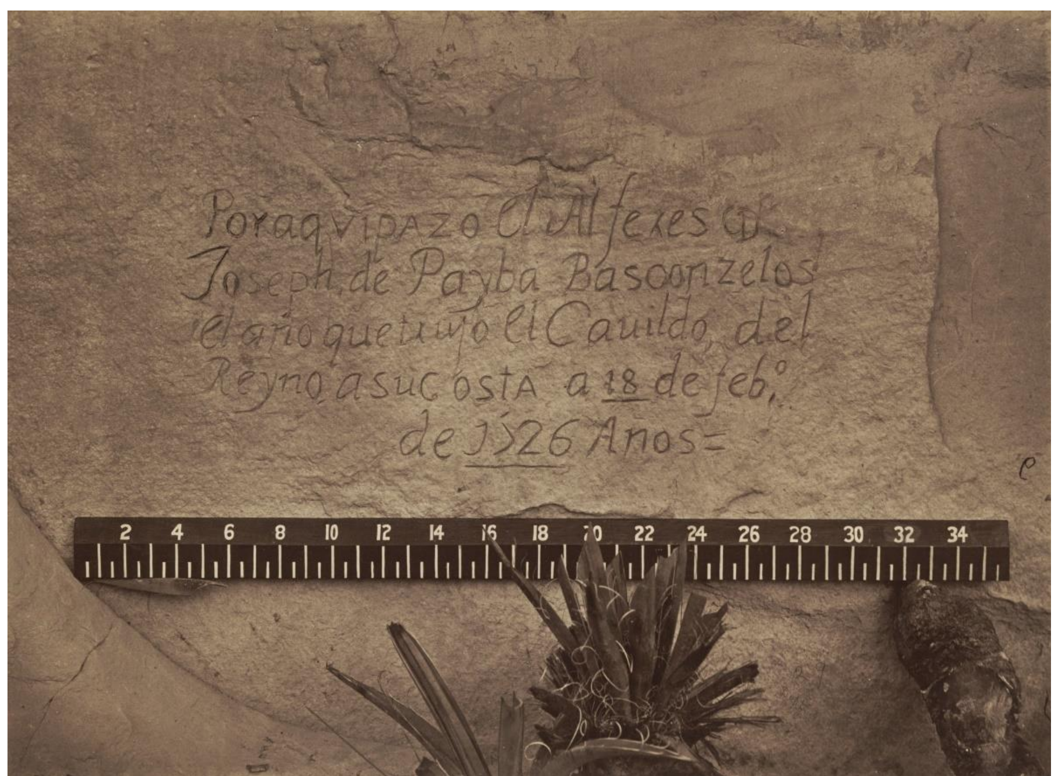

Figure 61: Timothy O’Sullivan, *Historic Spanish Record of the Conquest: South Side of Inscription Rock, N.M., No. 3,* albumen print, 1873

Figure 62: Timothy O’Sullivan, *Melon Cactus, Colorado River*, modern contact print, 1871

Figure 63: Patterson-Gimlin film canister at the International Museum of Cryptozoology, Portland, ME

Figure 64: René Dahinden, “Mr. and Mrs. Bellvue,” 1966

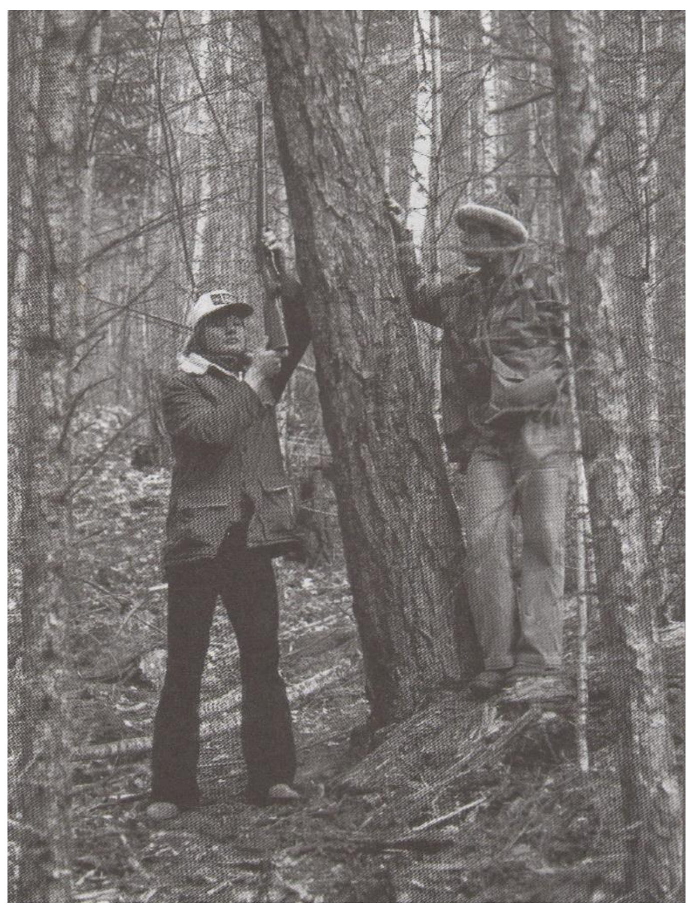

Figure 65: René Dahinden, “Tim Meissner,” 1979.

Figure 66: René Dahinden, “Richard Brown standing where he stood when watching the Bigfoot,” 1971

Figure 67: Peter Jordon, “Mr. Sites points to the damage on his barn at the family farm in Wantage, New Jersey,” 1977

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