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A Model Citizen: Ethos, Conservation, and the Rhetorical Construction of Aldo Leopold

Daniel Cryer

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Daniel A. Cryer

Candidate

English

Department

This dissertation is approved, and it is acceptable in quality and form for publication:

Approved by the Dissertation Committee:

Michelle Hall Kells , Chairperson

Gary Harrison

Charles Paine

Bruce T. Milne

**A MODEL CITIZEN: ETHOS, CONSERVATION, AND THE
RHETORICAL CONSTRUCTION OF ALDO LEOPOLD**

by

DANIEL A. CRYER

B.A., English and Cultural Studies, Towson University, 2003
M.A., English, University of New Mexico, 2009

DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of

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DEDICATION

To my father, who made me love arguments.

“Then Jesus answered and said to them, ‘Most assuredly, I say to you, the Son can do nothing of Himself, but what He sees the Father do; for whatever He does, the Son also does in like manner.’”

New King James Bible, John 5.19

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ABSTRACT

This dissertation explores the changing, multifaceted ethos of Aldo Leopold (1887-1948), one of the twentieth century's most versatile environmental communicators. Drawing on scholarship in environmental rhetoric, rhetorical genre theory, citizenship theory and ecofeminism, I argue that throughout his career Leopold offered evolving rhetorical versions of himself as ideals of ecological behavior to be emulated by his readers. The chapters analyze Leopold's ethos as it was constructed in his early-career writings in the New Mexico Game Protective Association *Pine Cone*, a wildlife protection broadsheet; in the *Report on a Game Survey of the North Central States*, his first book; in reports and articles he wrote during the Wisconsin deer irruption debates of the early 1940s; in the essays of *A Sand County Almanac*, his best known work; and in its current manifestation on the property of the Aldo Leopold Foundation in central Wisconsin. By focusing on these key rhetorical moments in Leopold's ethos formation, this study reveals the sources from which his ethos arose, including nineteenth and early-twentieth century conservation movements and scientific literature, and the specific environmental crises to which he responded. In revealing, on one hand, the rhetorical strategies that excluded or alienated key stakeholders in the issues on which he wrote, and, on the other, his remarkable ability to connect with a range of audiences in a variety of genres, this study shows that Leopold can serve as both a model and cautionary tale for environmental communication in our own time.

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Chapter 1

Introduction

Aldo Leopold's now-classic book, *A Sand County Almanac*, was more than a decade in the making before its publication in 1949 and was conceived early on as a collaboration with Leopold's former student Albert Hochbaum, a talented illustrator. As Leopold drafted the book's essays he sent them off to Hochbaum, then working at a waterfowl research station in Manitoba, who often responded with comments. Their correspondence reveals much about how Leopold and his work were viewed by his contemporaries, and about his legacy as one of the twentieth century's giants of environmental writing. Hochbaum clearly admired his former professor, judging in a letter dated January 22, 1944, that Leopold already sat "in a circle which may never hold more than a dozen in the century" (3).

But when he found room for criticism he leveled it with the directness of a trusted friend. At several points, Hochbaum addressed what he saw as a mismatch between the persona Leopold's essays constructed and Leopold himself. In the same letter he says, "[Y]ou [...] deplore the fact that brute man has spoiled the things you love [but] you never drop a hint that you yourself have once despoiled, or at least had a strong hand in it" (1). In another, dated February 4, he says that "the reader cannot help but gather that you believe your reaction is always the proper one and that it has been always so. [...] You almost chide him for not having the vision you didn't have 20 years ago" (2). To back up these kinds of claims, Hochbaum quotes a two-decade old article of Leopold's in which he advocated for the wholesale slaughter of predatory animals like wolves, a position he had come to regret.

Hochbaum caught Leopold in the act of sanitizing his persona, and he felt it was a serious error because this persona was the center not just of the book, but of Leopold's legacy. On March 11 he wrote, "Perhaps more than anything else," the book was "a self portrait" (1). He continued:

Please don't feel uneasy that I should call this a self portrait. I doubt that you ever thought of it as such. I think it is very important that it should be. If you will put yourself in perspective you might realize that within your realm of influence, which is probably larger than you know, Aldo Leopold is considerably more than a person; in fact he is probably less a person than he is a Standard. (1-2)

For Hochbaum, Leopold's essays had the power to persuade not just because they were finely written or well informed, but because they were authored by Aldo Leopold, the "Standard" of American conservation. If Leopold was to wield this ethos effectively and responsibly, Hochbaum felt he needed to construct it with an eye to the things he had gotten wrong.

Hochbaum's commentary was prescient. Leopold is known to us now as one of the twentieth century's great conservationists and nature writers. His career spans a time (1909-48) when the nation's environmental conscience tried to catch up with its technical prowess. Though he was not on the right side of every issue, in many ways the Leopold of *A Sand County Almanac* has come to be seen as the embodiment of that conscience. Having worked with his hands, his mind, and his pen in the fields of forestry, wildlife management, ornithology, and ecology, Leopold contributed significantly to the major environmental questions of his day. Most of all, his *Almanac* crafted an ethic, embodied

in a compelling ethos, that remains a touchstone in environmental philosophy more than sixty years after his death.

Hochbaum's observations about the core of Leopold's persuasive power are also incisive, prefiguring in their own modest way the work of environmental rhetoricians H. Lewis Ulman, M. Jimmie Killingsworth and Jacqueline S. Palmer, who have all observed the importance of Leopold's ethos. In his study of Leopold, Ulman understands "ethos" to mean "the sum of *particular* intellectual and moral qualities that an audience recognizes in the rhetor's message" (50) and associates with the rhetor's identity. Key to my own understanding of "ethos" are Ulman's implicit messages that 1) the mortal, physical person of a rhetor and a rhetor's ethos are separate but interacting entities, and 2) an ethos is a co-construction of rhetor and audience – points that will be further elaborated below.

Building on the work of Ulman, Killingsworth and Palmer, and other scholars of rhetoric, this dissertation asserts that over the course of a lifetime of writing Leopold built an ethos – a public persona – that was meant to serve as a model of environmental citizenship to which others should aspire. It explores the evolution of this ethos over his four-decade professional life, looking closely at key texts whose aim is to remake audiences in his own rhetorically constructed image, and examines the relationship between Leopold the man and Leopold the persona. Through close rhetorical analysis and a reading of historical contexts, this study shows that Leopold, from his earliest writings in the 1910s to the *Sand County Almanac* essays published after his death, cast himself as an ideal ecological citizen – a person whose choices reflected a deep knowledge of their effects on both human and non-human communities – to serve as a model for his readers.

But if this ideal-citizen ethos was only partially rooted in the person and experience of Leopold himself, where did it come from? How did it arise? And what purpose, beyond simple persuasion, did it serve? For most of his life, Leopold was a creature of institutional bureaucracy. In working for the Forest Service for twenty years, for a large state university for fifteen, and all the while interacting closely with state and federal governments, Leopold saw the power of institutions to define the behavior of individual citizens, but he also became intimately familiar with their limits. He wanted people to live, in today's language, in a more sustainable way, but he saw that external motivators like laws and regulations only moved them so far. If future generations were to inherit a world worth having, Leopold thought, the people of his and his children's generations needed *internal* motivators to guide them toward sustainable behavior: they needed an ethic, a code.¹

Leopold's most famous "code" is delineated in "The Land Ethic," the final and most celebrated essay in *A Sand County Almanac*. In it he argues that moral consideration should be extended from human-to-human relations to "man's relation to land and to the animals and plants which grow upon it" (203). In his compact, direct style, he says, "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land. [...] In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it" (204). Leopold saw the land ethic as a practical extension of Darwin's theory of evolution: humans *are*, in actuality, members and citizens of the land community, both in it and of it. When we think otherwise, he argued, we conquer the very things we depend on for survival.²

The chapters that follow show Leopold projecting his ethos from the place where institutional power left off and internally motivating codes kicked in. Unlike other rhetorical studies of Leopold, this one extends beyond his late-career work to examine his writings from the 1910s and '20s. Early in his career as a Forest Service worker in New Mexico, Leopold attempted to persuade the region's hunters to go beyond merely following hunting laws to adopting a code of ethical sportsmanship, a code that actively excluded the region's native subsistence hunters (Chapter 2). After moving to Wisconsin in the 1920s, Leopold cultivated a more broadly inclusive ethos as he sought to unite diverse stakeholders – farmers, hunters, professional researchers, and others – under the banner of wildlife management (Chapter 3). In the 1940s he rooted his ethos in different ideals according to a range of rhetorical situations, but primarily relied on his persona as a rational, objective scientist, and as a practical landowner observing and cultivating his own flora and fauna (Chapter 4). After his death, *A Sand County Almanac* located his ethos in rural Wisconsin where he patiently demonstrated and explained in his essays the practice and philosophy of his “Land Ethic.” Finally, since the 1990s his ethos has been further rooted in his Wisconsin land and in the private domestic sphere of what I call his “citizen family” by the Aldo Leopold Foundation, bringing his legacy and ethical code into the twenty-first century (Chapter 5). These chapters disrupt the dominant narrative of Leopold in which “The Land Ethic” and *Almanac* stand as the crowning achievements of all that came before them. Further, by taking Leopold's ethos rather than Leopold himself as its primary subject, this dissertation offers a view of a canonical American writer that we have not had before, and offers much to consider in our own struggles with communicating the urgency of modern environmental crises.

Leopold in the Literature of Environmental Rhetoric and Environmental History

Scholars of environmental rhetoric have long considered “The Land Ethic” an important text and Leopold himself a canonical figure. Yet no monograph in the field treats the full scope of his long, eventful career, and articles and book chapters rarely venture beyond his most famous works. Focusing on “The Land Ethic,” John Opie and Norbert Elliot place Leopold within the historical tradition of the American jeremiad, showing how he combines “the Puritan sense of a mission” (30) with scientific observation based in his extensive training. Scott Slovic uses the *Almanac* to argue that a primary feature of American nature writing is its separation of explicit political activism from an inner search for truth through natural beauty. M. Jimmie Killingsworth and Jacqueline S. Palmer implicitly disagree with Slovic, claiming that Leopold leveraged an inward “mysticism” toward an outward “scientific activism” that combines philosophy and politics rather than separating them. While I stand with Killingsworth and Palmer’s reading of Leopold as a synthesizer, none of these authors include in their analysis the rich body of work, which includes more than 500 published articles, that preceded the *Almanac*.

H. Lewis Ulman’s rhetorical reading of Leopold, which goes well beyond “The Land Ethic” and the *Almanac*, is the exception that proves the rule in environmental rhetorical analyses of Leopold. Ulman’s study enriches our understanding of Leopold’s ethos over a larger span of his career and deeply informs my own. In addition to Leopold’s most famous works, Ulman examines several earlier essays from the 1930s and ‘40s to show how he “modulated” his ethos across texts to communicate with different audiences (54). Like Slovic and Opie and Elliot, Ulman looks to Leopold for

clues to what comprises the genre of American nature writing, arguing that in it, “self and scene dynamically blend” to combine autobiography and empirical observation (47). Further agreeing with Slovic, Ulman argues that these qualities create clear boundaries between nature writing and the twinned discourses of science and policy-making, which move away from the personal ethos of the observing subject from which nature writing proceeds. “Nature writing,” says Ulman, “accommodates natural history but *foregrounds* the construction of writers’ personae and ethos in light of ethical judgments about how to be and act [...] in the natural world” (49). Ulman argues, then, that the construction of a model ethos for the purpose of persuading readers to behave more attentively and sustainably in nature is not just a tactic used by Leopold, but is a feature of nature writing itself.

My own study extends these insights by exploring several dimensions of Leopold’s rhetorical situations that informed his ethos construction. One such dimension is genre. Where Ulman and Slovic read Leopold to develop conclusions about the broad genre of nature writing, I use genre theory to show how specific genres – the game survey report and the field research article – helped to define Leopold’s ethos. Further, because these genres do not fall under Ulman’s or Slovic’s rubrics of “American nature writing” but still exhibit many of its characteristics, my study troubles the borders between “literary” and “non-literary” writing about the natural world. Ulman and Slovic agree that Leopold kept the personal and the political and scientific separate in his work, but my analysis shows that Leopold foregrounded his personal ethos even in some of his technical work for the purpose of effecting political change.

Leopold's status as an influential advocate for sustainable living has made him the subject of several historical inquiries that focus on his public rhetorical presence, and thus bear upon my study. Historians agree, generally speaking, that the position from which Leopold argued evolved over the course of his career from economic anthropocentrism to ecological holism. But the nature and completeness of his transformation is in dispute; two influential historians have read Leopold's pragmatic balance of economic and ecological appeals very differently. Roderick Nash, for example, suggests that Leopold, in his mid to late career, viewed economic rationales for conserving nature with suspicion, if not disgust. He asserts that when Leopold took a job at the Forest Products Laboratory in 1924 – the job that brought him from New Mexico to Wisconsin – he “instinctively recoiled at [its] preoccupation with utilitarianism,” and that this vague distaste found its full expression in his later writings (*Wilderness* 192). While it is true that Leopold leaned less heavily on economic reasoning as his knowledge of ecology advanced, Leopold's arguments were still thoroughly economic and utilitarian during his time at the Forest Products Laboratory and well after he left.³ Pragmatist that he was, he never fully renounced the need for economic feasibility in any given project, nor the necessity of arguing from an economic vantage point.

Donald Worster is more attuned to Leopold's economic pragmatism but uses it as an emblem of his failure to serve as a properly ecological standard. Worster's chief example of Leopold's early economic anthropocentrism is his position in the 1910s and '20s on predator control. As Hochbaum reminded Leopold in their correspondence, Leopold advocated “a policy of total extermination” (Worster 273) of wolves, big cats, grizzly bears, and other animals that preyed upon the nation's favored game animals. As

Leopold put it in his famous *mea culpa*, “Thinking Like a Mountain,” “I thought that because fewer wolves meant more deer, that no wolves would mean a hunters’ paradise” (*Sand County* 130).⁴ His recognition of the folly of his position is, for Worster, part of a larger change, a “transition period from a utilitarian to an ecological approach to conservation” (*Nature’s Economy* 284). Though he says that Leopold’s Land Ethic “would come to be regarded as the single most concise expression of the new environmental philosophy” (*Nature’s Economy* 284), Worster argues that “he never broke away altogether from the economic view of nature. In many ways his land ethic was merely a more enlightened, long-range prudence: a surer means to an infinite expansion of material wealth” (*Nature’s Economy* 289).

Roderick Nash sees in Leopold an heroic resistance to economic valuation and utilitarianism, while Worster sees an inability to wholly escape them. Both historians operate under the assumption that reasoning about the natural world compromises itself ethically when it relies on economics, and in doing so they miss a point that falls squarely within the wheelhouse of the rhetorician. Leopold was not only a thinker drafting a philosophy for the ages. He was also a manager, bureaucrat, and teacher – a citizen-rhetor beholden to the widest variety of interests, deeply committed to persuading them all to behave in more sustainable ways. In Aristotle’s terms, economic valuation and economic metaphors were among the choicest of all available means of persuasion because they cut across interests like no other appeals. In renouncing them, Leopold might have earned a greater measure of Worster’s and other natural historians’ respect, but he would have been a poorer rhetor. Leopold knew his mission, and he knew his audience.⁵

Susan Flader's history of Leopold's ideas, the first book-length treatment of the subject, attends more closely than do Nash or Worster to his role as an activist and public rhetor. Drawing on the full spectrum of his archive, Flader looks at Leopold's evolving attitudes toward deer, their predators, and forests, subjects that engaged him throughout his professional life. Flader's consciousness of Leopold as an activist expands her focus to include the give-and-take between Leopold and the publics with whom he tried to communicate, and she digs into his personal correspondence to show how he thought about that amorphous entity, "the public." She characterizes Leopold's relationship to the conservationist lay-public as a clash of visions, with Leopold correctly perceiving natural-world problems ecologically, with complex and often counter-intuitive solutions, and the lay public perceiving them as static entities with linear solutions (168-172, 180-93).

Historian Julianne Lutz Newton and legal scholar Eric Freyfogle have discussed Leopold's work in terms of "the public" in a different sense (see "Key Terms" below for more on the public/private distinction). Newton describes how Leopold came to the conclusion that government-managed conservation on public lands was useless if private landowners treated their property like a short-gain commodity. In the Southwest, overgrazing of grasslands, overcutting of forests, and the plowing and inadequate maintenance of already-thin soils had, by Leopold's time there, caused massive erosion and destruction of watersheds on private *and* public lands.⁶ Leopold knew how to work within his own agency – the Forest Service – to improve public land use, but faced a thornier problem in changing the ways of privately operating individuals and businesses like cattle ranches (Newton 148-50). Legal scholar Eric Freyfogle can be seen as moving

in the opposite direction – from private to public. He argues that Leopold’s land ethic provides a jumping-off point for modern property law to address the harms done by landowners and hold them to a higher standard of citizenship than their private motives can account for (“Battling,” “Ethics”).

The rhetorical inquiry that I provide extends the work of Newton and Freyfogle by exploring the rhetorical techniques Leopold used to confront the complex intersections of the public and private realms as they bore upon land use. It also extends Flader’s study by showing, at the level of specific documents and rhetorical strategies, how Leopold worked to change different conservationist publics over the course of his career. It further shows how these documents and strategies were shaped by a variety of contexts, including ideologies of the frontier that persisted in the late nineteenth and early twentieth centuries (Chapter 2), the genre of the game survey report (Chapter 3), and rationalist ideas of scientific objectivism (Chapter 4).

Why Leopold Matters Now

Leopold aimed his rhetoric at progressive-era and mid-twentieth-century publics, but this project shows his relevance to twenty-first century environmental debates. For decades he sought the sweet spot of American conservation rhetoric: the place where laws and regulations cease to persuade and “personal freedom” asserts itself. Our increasing inability even to talk responsibly and coherently about solutions to current environmental problems shows that we are still searching for this rhetorical space. Presidential candidates like Texas governor Rick Perry call for the abolition of the Environmental Protection Agency even as rivers in West Virginia and North Carolina are choked with coal-plant chemicals, with the unstated – or loudly stated – warrant of freedom from government tyranny. To appropriate one of Leopold’s own aphorisms, the modern dogma

is liberty at any cost. And no discourse that offers public or regulatory solutions at the expense of individual choice can gain a hearing. Environmental pragmatists like Ted Nordhaus and Michael Shellenberger, further reviewed below, aim to bridge the gap between ecological and economic sustainability, calling for a new environmental rhetoric based on values rather than rationalism and science, and while such voices are increasingly influential they face hard uphill battles.

These problems, perhaps especially intractable in our own time, are of course not new. Sensitive to the American tendency to resist regulation and fetishize individualism, Leopold pitched existing personal codes – like the hunting ethic of the mythical American frontiersman – and created new ones – like his influential land ethic. In doing so he carved a uniquely persuasive space in a culture resistant to appeals originating from outside the free-market language of the individual consumer.

Leopold's vision of institutional power and individual citizenship not only speaks to our current cultural needs, it also speaks to something that is, for me, the very personal political divide between my father, a Southern, ex-academic, evangelical Tea-Party Republican, and myself, an Eastern, environmental liberal academic. In the mid-1970s and early '80s, my father helped found a number of evangelical churches, one of which started in our living room and blossomed into a non-profit organization that included a school that I attended. My father was Pastor of the church and Principal of the school, largely because of his academic credentials: a PhD in biomedical engineering and post-doctorate work at Johns Hopkins University. Hopkins lured him north from his home in rural Louisiana and, even though he abandoned academia, he has, to his chagrin, never moved farther south than Northern Virginia. His politics have always proceeded from an

unshakable faith in a religious conservatism personified in the 1980s by Ronald Reagan and, more recently, by the Tea Party.

But Leopold speaks to both me and my father. Albeit for different reasons, each of us appreciates Leopold's attention to the role of personal ethics in responsible land stewardship and his highly informed appraisal of the limits of government to effect environmental change. Leopold's suspicion of dogma keeps his arguments agile enough to avoid stepping too forcefully on either my father's or my political commitments. Further, his credibility as a scientist backs that agility with considerable power, and his lovingly crafted prose communicates a deep affection for the natural world that brings my father back to his rural past and fills a void in my suburban one.

If there is a twenty-first century voice that blends pragmatism, scientific credibility, and supple yet direct prose in the manner of Leopold, I have not found it. For me, the farmer, poet, and activist Wendell Berry comes closest, but Berry lacks Leopold's scientific training, and though his voice matches Leopold's lyricism, it is also crankier. Mainstream environmental writers like Bill McKibben, on the other hand, accomplish much in the public sphere but are too tainted with "environmentalism" to be palatable to conservatives like my father. It may sound at this point as if I am arguing for environmentalism's rightward turn: I am not. I value McKibben highly and support his climate initiative, 350.org. Further, I am not suggesting that any modern scientist, writer, or activist could master climatic and biological sciences and communicate them successfully to a global array of diverse publics, or that such an ambition is even appropriate in the twenty-first century. Leopold is valuable to us now because even much more modest rhetorical aspirations are not being realized: he successfully navigated the

complex public-private commitments of the American psyche in a way no current writer or activist has, and because he was of a breed now increasingly rare: the publicly full-throated scientist, credible both as an activist and as a professional.⁷

At its best, Leopold's pragmatic rhetoric is comparable with, but not identical to, the ethos of the Breakthrough Institute, founded by environmental activists Ted Nordhaus and Michael Shellenberger in 2003. In the following year, Nordhaus and Shellenberger released an article that has become something of a rallying cry for pragmatic environmentalists, "The Death of Environmentalism: Global Warming Politics in a Post-Environmental World," in which they argue that if the environmental movement is to create any meaningful change, it must stop narrowly focusing on issues it associates strictly with "nature" and pay more attention to connective values. While "[e]nvironmentalism is today more about protecting a supposed 'thing' – 'the environment' – than advancing a worldview," they claim, the forces of the cultural and political right *do* successfully sell a worldview, thereby "setting the terms of the debate."⁸ Leopold is an ideal object of study because his varied ethos provides examples of both: the values-conscious purveyor of a worldview equally sensitive to needs of ecology and economy, and the narrow-minded rationalist who believes that more and better science is sufficient for societal change. In this way, he bridges the discourses of nineteenth century conservation and twenty-first century environmentalism.

Key Terms

In aligning this project with "environmental rhetoric," I locate my work in a field that analyzes public arguments about the proper relationships between humans and the non-human natural world. Like ecocritics in literary studies, environmental rhetoricians assume that all such relationships are mediated through language, that "there is no

objective environment in the phenomenal world, no environment separate from the words we use to represent it” (Herndl and Brown “Introduction” 3). This is not to say that the trees, stones, animals, and oceans that make up the natural world are themselves human constructs, but that we can only know them through the medium of language embedded in culture. Unlike ecocritics, scholars of environmental rhetoric take as their central subject public environmental debate in all its forms, examining legal proceedings like municipal or congressional hearings, and technical documents like environmental impact statements or field reports, as well as the extended arguments of canonical writers like Leopold.

With a focus on public debate, environmental rhetoricians approach rhetoric itself as, in the words of Gerard Hauser, “a civic art.” By this he means that rhetoric is “a communicative method for conducting our public business, a means for common people to have a say in decisions of policy that affect their lives” (*Introduction* 149-50). Rhetoric, then, is intimately connected with “citizenship,” an individual’s involvement in a polity. Indeed, the histories of rhetoric and citizenship are tightly intertwined. Protagoras and Isocrates, Athenian philosopher-teachers from the fifth century B.C.E., argued ardently for the importance of speech and rhetorical education for the purpose of citizenship. Classical historian Edward Schiappa says that Protagoras was “the first reasoned defender” of democratic citizenship (184), asserting in his teaching an anthropocentrism, dangerously radical at the time, in which people had to argue with one another to find their way through complex problems rather than wait to be told the will of God(s) by elite rulers.⁹ Isocrates, who ran the first school of rhetoric in Athens, also taught rhetoric as a civic art (Bizzell and Herzberg 67). He wanted his students to be able

to set aside their own interests to speak for “the collective welfare of the city” (T. Poulakos 53). This kind of speech was, for Isocrates, “both the means and the end of a political life,” and a rhetorical education was the “lifelong pursuit of an honorable reputation through civic performance” (Haskins 49). In claiming that Leopold constructed an ethos of ideal environmental citizenship, I am calling upon these ancient connections. His ethos was not only defined by natural-world knowledge, but also by a commitment to public debate and communal values.

Under the rubric of rhetorical analysis, “ethos” refers to the aspect of persuasion that derives from the character or perceived character of a speaker. Aristotle says that it is “almost, so to speak, the most authoritative form of persuasion” (*Rhetoric* 39), and classifies it as one of three primary appeals within the practice of rhetoric (the other two being *logos*, appeals to logic or reason, and *pathos*, appeals to the emotions) (*Rhetoric* 38-9). Nan Johnson unites the classical with more modern senses of ethos when she says that it “has been defined in two ways: as a mode of persuasion that draws upon the prerequisite virtue of the speaker; or as a mode of persuasion that relies on the speaker creating a credible character for particular rhetorical occasions” (243). As was noted above, my own argument about Leopold’s ethos foregrounds the importance of understanding ethos in Johnson’s modern sense: as a construction rather than as one’s inherent traits. As Gerard Hauser puts it, “*Ethos* is not a thing or a quality but *an interpretation that is the product of speaker-audience interaction*” (*Introduction* 147, emphasis in original).

Rhetorical theorists have devoted much thought to the nature of the speaker-audience interaction embodied in a rhetor’s ethos. If an ethos “works” – that is, if it

connects with an audience – it is because it embodies or expresses truths accepted by a given community. As S. Michael Halloran has said, “To have *ethos* is to manifest the virtues most valued by the culture to and for which one speaks” (60).¹⁰ “Ethos,” then, is always a co-construction of rhetor and audience, of individual and community, society, and culture, and because rhetors active in the public sphere communicate with different communities, the ethos of someone like Leopold is not a unified entity but a fragmented and changing one. For these reasons this dissertation understands “ethos” in the postmodern sense: “*Ethos*,” says Nedra Reynolds, “like postmodern subjectivity, shifts and changes over time, across texts, and around competing spaces” (326). So, not only is Leopold’s ethos separate from and interactive with his physical self, it is also a fragmented entity better understood in its plural form, *ethoi*.¹¹ When we analyze Leopold’s ethos we engage in a kind of double-interpretation in which we read his act of creating a set of traits for himself as a rhetor in a given situation, while we also read those traits as the values of a community with which Leopold sought to identify. We ask, “What does it tell us about Leopold that he chose to represent himself this way?” “What does it tell us about the conservation movement of which he was a part?” and, “How and why might these traits persuade this audience in this moment?”

The concepts of ethos and citizenship are ideal for exploring Leopold’s rhetoric because they sit at the intersection of the “public” and “private” realms. When I say that Leopold aimed his persuasive tactics at the place where public institutions lose their influence to private codes of ethics, I am using only one of many possible public/private distinctions. The term “public institution” refers to the public *sector* of government and other entities funded by taxpayers, such as public forests, as opposed to the private sector

of individually or corporately owned businesses or lands. The public *sphere*, or the *polis*, on the other hand, refers to the realm in which citizens debate the composition and direction of society. This sense of public-ness is differentiated from the private sphere of personal commitment and choice, a sphere rooted in the household, or *oikos*, associated with family and domesticity. While clean separations between these sectors and spheres are not possible, the terms provide useful taxonomies for discussing public debate, political action, and the spaces in which they unfold.¹²

My analysis of Leopold's rhetoric also draws on the considerable nuance given over the last two decades to the notion of "the public sphere" in political and rhetorical theory. Understanding Leopold's ethos as a rhetorical strategy aimed at creating a public in his own image assumes, with scholars such as Nancy Fraser, Bruce Robbins, and Michael Warner, that there is no unified public sphere, but instead a series of publics and counterpublics that are created and maintained by discourse (Warner 67). Noting the variability and importance of publics and public spheres and the diversity of places in which they operate, Gerard Hauser says, "Our public deliberations occur in multiple forms not exclusive to those of the official political realm, and they lead to opinions which, when widely shared, set expectations for their consequences on official policies. We refer to this montage of discursive arenas as public spheres" (*Vernacular* 20). Like any activist, Leopold was unsatisfied with the publics of his own time and sought to change them, largely through his writing. He engaged a variety of publics, from hunters in New Mexico and Wisconsin, to fellow conservation professionals nationwide, to a more generalized public of people who valued the natural world, and he consistently crafted an ethos designed to spread his own conservationist views and practices.

Methods and Methodologies

To trace Leopold's ethos across different phases of his career, this dissertation makes extensive use of the Aldo Leopold papers, housed at the University of Wisconsin, Madison, and available online. This section gives a brief history of the Leopold archive – in particular of the “invisible hands” that created it (Morris and Rose) – then describes my archival methods and methodologies. In their introduction to *Working in the Archives: Practical Methods for Rhetoric and Composition*, Ramsey, Sharer, L'Epplattener, and Mastrangelo differentiate between these two terms. Following historians of rhetoric Hui Wu, Gesa Kirsch, and Patricia Sullivan, they define *methods* as “techniques or ways of proceeding in gathering evidence,” and *methodology* as “the theorization of the goal of research” (3). Separating these ideas below, I provide a narrative account of my experiences in the physical and online spaces of the Leopold archive, a theoretical grounding for my selection of texts, and brief summaries of the interpretive methods I employ in each chapter.

The Leopold Archive

Aldo Leopold was a disciplined and prolific writer. He developed a steady writing schedule as a young man, sending regular letters home to Iowa from the Lawrenceville Preparatory School in New Jersey, maintaining through adulthood correspondence with hundreds of colleagues, friends, students, and organizations; drafting four books (three of which were published) and more than five hundred articles; and keeping daily journals. After Leopold's death in 1948 his papers were managed by his widow, Estella Leopold, until 1961, when Roderick Nash, then a graduate student, convinced Mrs. Leopold to deposit the papers at the University of Wisconsin. Susan Flader collected more of Leopold's papers from his family and colleagues, and from the US Forest Service and

other entities, in the late 1960s. With these substantial new additions in place, Flader organized the collection and developed the finding aid, revised in the 1980s by Leopold's biographer Curt Meine, that still serves those who use the collection today.¹³

Leopold's papers comprise 83 archive boxes (nearly 30 cubic feet), five folios, twelve journals, and many photographs. From 2006 to 2009, a partnership between the Aldo Leopold Foundation and the University of Wisconsin Digital Collections Center oversaw the enormous task of scanning the Leopold papers and organizing them into a highly usable online archive, where the vast majority of materials are now accessible.

Methods: Experiencing the Archive in Four Spaces

The experience of the Leopold archive can unfold in multiple spaces: most obviously, in the physical space of the University of Wisconsin's Madison campus and in the digital space of the online archive. Though digital archives are incredibly convenient and the best ones highly navigable, scholars of rhetoric have argued for physically *being with* archival materials. Writing about archives that have been digitized, Alexis Ramsey notes "the importance of the senses in archival work," and how "being inside or in physical contact with a collection is paramount for a researcher to write with any level of authority on the collection" (85). For these reasons, travelling to Wisconsin became a priority for me. Further, visiting Madison allowed me to spend time in the archive's third space. Forty miles northwest of the university is the 120-acre parcel of land that the Leopold family managed during and after Aldo's lifetime, on which now sits the Aldo Leopold Foundation and the original "shack" – really a converted chicken coop – where the family used to stay. Liz Rohan, discussing her own research in Detroit, has argued for "using place as an extension of the archive" (233), and the Leopold land and Foundation seemed like ideal locations for putting this principle into practice. In my research, I spent time in

all three archival sites (and a fourth of my own making), and each shaped my work and my perspectives on Leopold in different ways.

In the summer of 2013 I took two archive-related trips. The first was to Lawrence, Kansas, where I attended a week-long seminar on archival research at the Rhetoric Society of America's biannual Institute. The second was to Madison, where I spent several days poring over as many of Leopold's documents as I could. From Madison I drove to Baraboo, to the Aldo Leopold Foundation Center (described further in Chapter 5), a modern marvel of green technology, and the Leopold shack. The Foundation property is an extension of the Leopold archive in more than one way. Anyone who has read Meine's biography, or the Foundation's promotional materials, knows that when Aldo bought the property it was a barren landscape of sandy soil and sickly shrubs, but that over the course of a decade the family planted more than thirty thousand trees and other plants, transforming it into the green, shady expanse that now greets visitors.¹⁴ Where the Leopold papers in Madison acquaint one with Leopold's handwriting on the page, the shack property reveals Leopold's handwriting on the land. The Foundation Center building furthers this sense. Largely made of the very pine and maple trees that the Leopold family planted and tended, it is also a physical manifestation of his labor.

During my time in the official Leopold archive, both physical and digital, I tried to be attentive to what Lori Ostergaard has called "the balance between serendipity and process – the unpredictable interplay between accident and intention – that often characterizes archival research" (40). To provide the "intention" in this equation, I arrived in Madison with a series of focused questions related to my topic. I was interested in the way the enactment of citizenship is always a combination of public- and private-

sphere activity. Reading the work of Jurgen Habermas had introduced me to the idea of the family, and family letters in particular, as a site of character formation for the public sphere (46-9), so I began my archival reading in Leopold's letters home from his first Forest Service post, in Springerville, Arizona.

The time that I spent in physical contact with Leopold's land and his papers gave me a sense of his humanity that was lacking in the digital archive and challenged by what I found there. My focus on ethos meant I was constantly thinking about the connections and disconnections between Leopold the man and Leopold the rhetorical persona.

Leopold is a beloved historical figure for many good reasons. But in my research I found that the persona of the frontiersman-sportsman he appropriated and spread furthered the project of forced assimilation of Native Americans and *Nuevomexicanos* in the southwest; that this persona continued to be important to his arguments about deer hunting in Wisconsin; and that he seemed dismissive and unreflective about his ties to ammunition manufacturers in his wildlife research. In themselves, none of these negated his profound contributions to conservation, but if I viewed Leopold only as a rhetorical construct and not as a human being, it was possible for me to view them opportunistically, as research "finds" whose primary feature was their use-value to a young scholar.

In the convenient and abstracted world of the digital archive, my physical experiences in Wisconsin helped me to keep in mind what Liz Rohan says of her own research subject, the twentieth-century missionary Janette Miller: that Rohan was "concerned with representing Janette's writing and life with empathy and respect," even when she "neither understood nor respected her" (232). Michelle Ballif, citing Jacques

Derrida, characterizes this aspect of historiography, in which we attempt to ethically channel a deceased other, as a kind of “paranormal investigation,” or “hauntology.” “Thus, ethical – and just – being (in-the-world),” says Ballif, “necessitates stepping to and beyond the (impossible) border between life and death, demands listening to, learning from, conversing with those inhabitants of this border: the dead as undead, the *revenant* as the *arrivant*” (140). As I spent more and more time with Leopold, I indeed felt haunted by him, and my historiography-as-hauntology raised unsettling questions: Who was I, a junior scholar who spent his days at a desk writing about writing, to critically analyze the work of a man so deeply immersed in nature and the public sphere? How was I to balance my commitment to Leopold, who deserved the fair treatment that I myself would desire, with my commitment to critical inquiry, which required an accounting for the causes and effects of Leopold’s rhetorical choices? How could I steer a middle path between lionizing and demonizing my subject?

The fourth space in which I experienced the Leopold archive, then, was my own haunted mind. It was here that I attempted to reconcile the abstraction of the digital archive, the intimacy of the physical papers, and the complexity of the Leopold Foundation and land. As I wrote I tried to critically examine Leopold’s rhetorical choices, but also to contextualize them in their own cultural moment. I also have attempted to direct my project at the multiple audiences likely to have an interest in an examination of Leopold’s writings: rhetoricians, literary scholars, historians, and scientists. To this end I have grounded my analysis in rhetorical terms but take pains to define them, as I have above with “rhetoric,” “environmental rhetoric,” and “ethos.” And I have tried to engage some of Leopold’s own research interests, albeit from a rhetorical perspective, such as

ecology (Chapter 3), wildlife management (Chapters 3 and 4), and hunting laws (Chapter 2). Further, I have devoted a considerable portion of the dissertation's final body chapter (Chapter 5) to reading the rhetoric of the Leopold Center and the way it carries Aldo Leopold's ethos into our own time. I hope that scholars of rhetoric, literature, history, and science who are interested in Leopold's work will all find something of value here.

Methodology: Selection of Texts and Chapter Summaries

A rhetorical history like this one necessarily sacrifices breadth for the sake of depth. In selecting a few major texts or bodies of texts to analyze closely, I have excluded many others. Cheryl Glenn and Jessica Enoch discuss the "theoretical grounding" that guides the archival researcher as he or she engages in the practice of textual selection and the ways in which that grounding might allow the researcher to reflect on existing narratives in new ways (22-3). My reading in the archive was guided by the many complex overlaps of the public and private realms in Leopold's life and work. The concepts that offered the most fertile ground for exploring these overlaps, as was explained above, were *ethos* and *citizenship*. The theories surrounding these terms allowed me to recast the teleological narrative implicit in many studies of Leopold, in which "The Land Ethic" stands as a kind of destination for all of his other work, as a less linear account of his core rhetorical techniques. As I read Leopold's papers, I was most interested in moments where he intervened publicly in problems of great consequence, whether these problems were acute or affected society at large. I found that in these moments Leopold offered his own ethos as a practical guide.

But the act of offering one's rhetorically constructed self as a model for others raises troubling moral questions, and therefore calls attention to the relationship between ethos and ethics. The heart of this relationship lies in a point made above: that an ethos is

a co-construction of self and community, made for the purpose of persuading community members toward some action. Because of this, ethos and community constitute one another in the discursive practices of rhetoric as an ethos reflects the values of the community and the community reacts to the *ethoi* deployed within it. Nedra Reynolds and Susan Jarratt argue that the rhetor at the root of an ethos has an ethical responsibility to account for difference – that is, to allow space for different ways of knowing and being to flourish. My reading of Leopold shows that in some instances, or, to use one of Jarratt’s and Reynolds’s preferred terms, in some of his “guises” (56), he does indeed account for different ways of knowing and being in the natural world, but also that in others he is far more restrictive, closing out democratic and discursive participation.

Reading three biographies of Leopold, one comprehensive (Meine) and two more focused on his intellectual development (Flader, Newton), and cataloguing the published articles in his archive, I clearly saw two public episodes in which he did not ethically account for difference and that have not received adequate attention from scholars. The first occurred in New Mexico in the decade after it achieved statehood in 1912, when Leopold was tasked by the Forest Service with aligning the state’s hunters behind its new hunting laws. In addition to travelling to meet with New Mexico’s various “game protective associations,” Leopold served as editor and lead writer of the *Pine Cone*, a twice-yearly broadsheet on hunting and wildlife conservation, which marked his debut as a politically involved public rhetor. In the *Pine Cone* Leopold rallied a diverse public of hunters, but excluded subsistence hunters – those hunting for material and cultural purposes rather than for “sport” – from a statewide conversation.

The second moment took place in the '40s, the last decade of Leopold's life, when he again rallied to the cause of wildlife management by way of hunting laws. This time he argued for the expansion of Wisconsin's buck season to include fawns and does in an effort to cull a deer herd so large that it was badly damaging the state's northern forests. His proposal was scientifically sound, given the evidence at the time, but wildly unpopular with much of his audience. Adhering to a strictly rationalistic understanding of nature, he was demonized by some hunting groups as heartless and arrogant – the only time his normally well-received ethos so publicly failed him.

The other two moments from which I chose texts to analyze showed Leopold constructing a broadly accepting ethos that did account for difference. One was Leopold's writing and publication of his first book, the *Report on a Game Survey of the North Central States*, which came out in 1931. Two years later he published his much better known textbook *Game Management*, but the *Report* grew out of a more complex rhetorical situation and required a more sensitively constructed ethos. To undertake the *Report*, Leopold left his Forest Service job for a vaguely defined contract with the Sporting Arms and Ammunition Manufacturer's Institute, an industry group with what some saw as questionable motives for learning about "game." With the report he hoped to unite the concerns of several groups: hunters, farmers, government conservation workers, and university researchers. In writing it he drew from the rhetorical tropes then in use by these groups and substantially innovated the genre of the game survey report.

Finally, I chose to analyze rhetorical representations of the place with which Leopold is now most readily identified: his "Sand County" farm in Wisconsin. The texts that did so in his lifetime are *A Sand County Almanac*, and a little-known technical article

that describes the phenology – the seasonal patterns of the local flora and fauna – of the farm. In my visit to the Leopold Foundation on the Leopold family land, I found yet another text that leverages that place to construct an ideal-citizen ethos: the Aldo Leopold Center.

With the overarching concepts of ethos and citizenship guiding the selection of texts and the project's overarching narrative, each chapter relies on a specific theoretical frame for contextualizing Leopold's ethos construction. Chapter 2 uses the work of cultural and political theorists Michael Warner and Barbara Cruikshank to show how Leopold's *Pine Cone* created a public that excluded New Mexico's Native American and *Nuevomexicano* subsistence hunters. Working for the US Forest Service and concerned about the state's ability to enforce its own hunting laws, Leopold helped to publicize a private hunting ethic that would steer individual hunters in the absence of official enforcement. Leopold did this, I argue, by conflating his own ethos with the "sportsman citizen," who hunted for recreation but never for food. Drawing on histories of hunting, of Progressive-era conservationism, and of New Mexico's native cultures, I show how the sportsman ideal served as part of the national assimilationist project of constituting communally oriented Native Americans as individualized American citizens.

Chapter 3 uses rhetorical genre theory to argue that Leopold constructed his ethos in the *North Central States* report by drawing on conventions used by the various constituencies he was attempting to unite. Through my own survey of two scientific journals of the late 1920s, I show how Leopold used the very different rhetorical techniques of two groups of field researchers – ecologists and ornithologists – to appeal to a broad spectrum of scientists. I further show how Leopold prioritized non-scientific

ways of knowing and being in the natural world by relying on the accumulated wisdom of landowners, hunters, and “old timer” farmers in the regions he surveyed. With these rhetorical moves, I argue that Leopold constructed an ethos of environmental citizenship that contained the viewpoints of all his primary audiences, closely identifying his goals with theirs and serving as the ideal consciousness of the new field of wildlife management.

Chapter 4 uses Risa Applegarth’s concept of rhetorical scarcity to compare two sets of texts in which Leopold created two very different *ethoi*. The first are the articles calling for an open season on deer in Wisconsin in the 1940s, described above. In these, Leopold relies on the narrowly rationalistic ethos of the citizen-scientist to argue for a personal code of objective fact-gathering. But, applied to the emotionally fraught issue of shooting does and fawns for the holistic health of the herd and the forest, this approach raised considerable public ire. The second set of texts are essays published during the same period and later re-published in *A Sand County Almanac* that describe Leopold’s experiences as a citizen-landowner patiently and lovingly observing the flora and fauna on his property. These lay the groundwork for Leopold’s most famous personal code of conduct, “The Land Ethic,” by providing Leopold’s own daily practices as a guide to land stewardship. That Leopold found considerable public resistance and resentment with the first set of texts and canonical status with the second troubles the idea, implicit in much scholarship on Leopold, that he reached a plateau of rhetorical effectiveness at the end of his life.

Chapter 5 expands on ethos and citizenship theories to examine three texts that closely connect Leopold’s persona with his family farm: a technical article by Leopold

partially set on the farm, *A Sand County Almanac*, and the Aldo Leopold Foundation Center and exhibit in Baraboo, Wisconsin. To varying degrees, I argue, all three construct the Leopold farm as a private domestic space inhabited by Leopold's "citizen family." Each subtly builds an ideal of private behavior that grows from an attachment to place and to family. I argue that this connection between the behavior of the ecological citizen and the domestic sphere of family – a connection made implicitly by Leopold and explicitly by the Foundation Center – creates a powerfully motivating ethical code, but ultimately depoliticizes Leopold's ethos in ways counterproductive to modern environmentalism.

Taken together, these chapters have implications for environmental rhetorical studies of history and for modern rhetoric about the environment. Scholars of environmental rhetoric have most often focused their work on events or places, or on the genres of nature writing and public debate, as can be seen in classic collections like Carl Herndl and Stuart Brown's *Green Culture*, or recent ones like Peter Goggin's *Environmental Rhetoric and Ecologies of Place*. But this study aims to show the value of extended rhetorical analyses of central environmental figures.¹⁵ In the case of Leopold, a rhetorical perspective offers a narrative that differs markedly from the widely accepted one provided by historians in which his ecological knowledge and his ethical approach to communication ascend in a steady arc toward their culmination in *A Sand County Almanac*. When depth rather than breadth is the priority, we give ourselves room to dig into the ethos Leopold appropriated in his early career, its effects on local populations, and the degree to which it differed in ethically problematic ways from his physical self. We also can examine in more detail the various influences on his complex ethos at key

moments in his professional life. How might similar studies change the way we think about key figures like John Muir and Edward Abbey, or reveal less known but equally influential writers like Alice Hamilton and Liberty Hyde Bailey?

This study of Leopold also gives us valuable insights into the rhetorical appeals we must balance in order to gain traction on environmental issues with American publics. At a time when 97% of peer-reviewed scientific papers support the concept of anthropogenic global warming (Cook et al.), yet a full one third of Americans believe it is “natural,” or unrelated to human actions (“Public Understanding”), it is clear that our environmental problems are as much rhetorical as they are scientific. One recent study on climate change communication concludes that “descriptions of the climate and its changes are primarily produced by science, in a way too complex to understand for many people” (Schäfer and Schlichting 143), suggesting that other rhetorical strategies are badly needed. That Leopold shows us the effectiveness of a practical rhetorical balance between objective appeals to science and subjective ethical appeals is well known. What is less well known, and what this study aims to show, is the composition and effects of those ethical appeals – what they are made of and how they have and have not worked. It also shows the complex web of public and private realms that a compelling environmental- citizen ethos must navigate: effective versus overbearing government regulations; sustainable personal ethics versus overly permissive free-market individualism; political activism rooted in the daily decisions of the domestic household.

Leopold remains influential largely for the reasons Albert Hochbaum alluded to in his critiques of Leopold’s *Sand County Almanac* drafts: his arguments were embedded in moving, highly informed self-portraits, and the selves depicted there embodied important

societal values and moved beyond them to a vision of something better. But that self, that ethos, has not been sufficiently complicated, whether through lack of attention to its many guises over the full span of his career, or through the kind of lionizing that often happens to historical figures. Leopold is not a model for modern sustainability movements; his work cannot tell us all we need to know to face down our own urgent problems. But he spent a lifetime confronting the societal structures that deplete their very foundations in the natural world. We can still learn from his successes and shortcomings.

Chapter 2
**Progressive Exclusions:
The Contradictions of Sportsman Citizenship in the *Pine Cone***

When Aldo Leopold travelled to the Southwest in 1909 at the age of twenty-two to work for the United States Forest Service, he was not leaving his hometown of Burlington, Iowa, for the first time. A child of relative privilege, Leopold had attended the Lawrenceville Preparatory School in New Jersey and the Yale Forest School in New Haven, Connecticut. His schooling was paid for by the Leopold Desk Company, which his grandfather, a highly respected businessman and architect in Burlington, had acquired for his son-in-law Carl, Leopold's father (Meine 8-11). At Yale, Aldo was sensitive about his privilege. As his biographer Curt Meine says, "He fancied himself as self-reliant as a mountain man or north-woods voyageur, and did not like to admit his dependence on the money from Iowa" (52).

The distance between how he "fancied himself," how others saw him, and his all-too-human physical limitations harshly asserted themselves in his first few years with the Forest Service. His letters home from this time reveal a tendency to sing the praises of his own outdoor prowess, which he set higher even than the veterans he worked with. But in his first months with the Service, given the lead position in a surveying expedition before he was ready for it, Leopold badly botched a baseline calculation that threw off his entire final report and, on the same outing, held his men to an unreasonable standard of austerity that led many of them to complain about his leadership. Soon he was the subject of an official investigation and found himself alienated from many of his peers.¹⁶ In April of 1913, in his capacity as deputy supervisor of New Mexico's troubled Carson National

Forest, Leopold travelled alone on horseback to the north-central Jicarilla district to confer with a group of ranchers unhappy with Forest Service grazing policies and lost his way. A trip of a few days dragged on for more than two weeks, during which time he was so severely exposed in the harsh mountain weather that he almost died. Upon returning, he was placed on leave and took nearly a year and a half to recover. He would deal with the health consequences for the rest of his life.

And yet, well into the 1920s Leopold created in his public writings an ethos that drew heavily on the myth of the ruggedly independent American frontiersman, using it to instill in his readers a strict code of outdoorsmanship and hunting practices. The ethos and the code were not merely bluster; they served a practical purpose. In the two decades bracketing New Mexico's advancement to statehood in 1912, the region was taking stock of the ecological damage done to its flora and fauna by many years of grazing and market hunting and trapping. Short on resources, the state struggled to enforce the hunting laws it saw as necessary to conserve what was left of its game animals. To fill in the gap between public regulations and private behavior, Leopold helped to unite the state's disparate game conservation groups under one organization, the New Mexico Game Protective Association, and created a quarterly publication,¹⁷ the *Pine Cone*, to define and distribute the new group's tenets. A central feature of the *Pine Cone* was its controlling ethos, first established by Leopold but also inhabited by other writers. With this ethos, the *Pine Cone* established an ideal of conservationist citizenship rooted in an American pioneer mythos and exclusive of the state's native hunters, which included Apache, Navajo, Pueblo Indians, and *Nuevomexicanos* who had lived there for centuries.

This chapter argues that the *Pine Cone* provides an early example of Leopold crafting an ideal-citizen ethos for the purpose of creating a conservationist public and guiding the individual behaviors of its members. Drawing on public sphere theory, it shows how the *Pine Cone*'s central ethos served as what political theorist Barbara Cruikshank has called a "technology of citizenship" (4) that aimed to persuade readers to abide by a code of ethics that overlapped and extended hunting laws that the state did not have the resources to enforce. What I am calling the "sportsman-citizen" ethos drew much of its power from the mythical American frontiersman-gentleman then popularly embodied by Theodore Roosevelt, which glorified recreational hunting and cast subsistence hunting – hunting for the necessities of life – as immoral and deviant. The sportsman-citizen ethos also served as a kind of mask for Leopold. Uncomfortable with his privileged background and compromised health, he hid behind a rhetorically constructed identity connected with independence and strength.

Analyzing Leopold's early ethos in this manner provides several valuable insights for rhetoricians and Leopold scholars. Following it back to the founding of the nation and to Europe, as this chapter does, reveals the historical provenance of one of his most powerful persuasive tools, one that he honed and used through a long, public, and largely successful rhetorical career. Particularly valuable for rhetoricians, subjecting Leopold's ethos to public sphere theories provides a practical view into how an ethos works to persuade groups of people to act in certain ways. As the previous chapter argued and subsequent chapters further illustrate, Leopold spent a lifetime crafting an ethos that would guide readers along what he saw as a path to sustainable natural-world citizenship.

This chapter explores the historical materials from which he drew, and shows how citizenship, as a form of membership, always holds the power to exclude.

Ethos and Power: Theorizing the Formation of Publics

When Leopold returned to work with the Forest Service after his seventeen-month convalescence, in September 1914, it was under strict orders against overexertion. Now tied to a desk, he was no longer a field man. He was, however, intensely interested in game protection, a task that at that time was volleyed in a haphazard fashion between the Forest Service, the Park Service, state governments, and the Bureau of Biological Survey (precursor to the modern Department of Fish and Wildlife). Arthur Ringland, Leopold's supervisor, was mindful of Leopold's condition but wanted his help on this increasingly important problem. He would get it, particularly in the form of the New Mexico Game Protective Association – the NMGPA – and its bulletin, the *Pine Cone*. Through these, Leopold would do a great deal to form a public of like-minded recreational hunters – no easy task in the culturally diverse state of New Mexico. This section calls upon the public sphere theories of Michael Warner and Barbara Cruikshank to examine the way ethos formation in the *Pine Cone* worked to create this public and guide the individual behaviors of members in the field.

When Leopold came out from behind his desk he traveled the state to speak to game conservation groups in its population centers – Roswell, Silver City, Santa Fe, Taos – eventually helping to found the NMGPA, which strenuously advocated for passage and enforcement of game laws in and beyond New Mexico. As secretary, Leopold edited, published, and largely wrote the *Pine Cone*, the first issue of which is dated “Christmas 1915.”¹⁸ In these bulletins and in related writings from the same period, we see Leopold in full rhetorical flourish for the first time. Publicly and passionately engaged, he

advocated for the upholding of the 1913 Federal Migratory Bird Law then being challenged in the Supreme Court and told stories of behind-the-scenes advocacy for a slate of NMGPA-backed state Game Wardens for appointment by the governor.

But for all his advocacy of public-sector solutions, Leopold well understood their limits. The Migratory Bird Law, which protected waterfowl and other birds across state lines, and later across national borders, had wound its way through the courts because many hunters found its restrictions onerous. From Leopold's vantage point there was no guarantee it would survive the challenge or that future laws wouldn't meet the same resistance. Because federal jurisdiction over wildlife was uncertain, Leopold argued in two *Journal of Forestry* articles that national forests should serve as hunting grounds with foresters enforcing hunting laws – but this also was not guaranteed.¹⁹ Foresters were already overworked and their training did not include wildlife management.²⁰ Further, in part because the government of New Mexico was in a transitional phase, having only recently earned statehood, in 1912, the office of the state game warden was chronically understaffed and unable to consistently enforce standing laws (Warren 97-103).

Mindful of these shortcomings and uncertainties, Leopold attacked the problem from another angle as well: by spreading in the *Pine Cone* what I am calling the ideal of “sportsman citizenship,” a code of behavioral ethics meant to guide hunters in the field not only to abide by game laws but also to report others who did not. Leopold and his fellow *Pine Cone* authors embodied and foregrounded the sportsman-citizen ethos, creating a powerful ethical argument that the hunting grounds were already populated by these types, who were eager to meet more of their own but kept a sharp eye out for infidels who lacked a proper code. The sportsman-citizen ethos, then, was meant to serve

as both an internal and external motivator. In the inner sanctum of the hunter's private self it was, ostensibly at least, a freely chosen code followed as a point of pride. In the event of a lapse, however, fields and forests contained other hunters ready to turn rule-breakers in to the authorities.

Social theorist Michael Warner and political theorist Barbara Cruikshank address in complementary ways this interplay of public coercion and seemingly private ethics and the role it plays in a democratic *polis*. While the concept of *ethos* will ground the close rhetorical analysis of the *Pine Cone* below, Warner and Cruikshank provide insights into how ethical rhetoric can fit within larger social and political systems.

In *Publics and Counterpublics*, Michael Warner argues that publics are created and maintained through discourse. He argues that publics are groups of strangers united by a common interest, who do not, as a public, preexist discourse on this interest but are brought about by it. "A public," says Warner, "is a space of discourse organized by nothing other than discourse itself. [...] It exists *by virtue of being addressed*" (*Publics* 67). Importantly, Warner's publics are part of civil society, the portion of the public sphere not associated with government or any other overtly coercive entity, making them "self-organized" (70). Members of publics perceive their membership as a freely chosen act.

This volitional aspect, in which members choose to be members for reasons of their own, can produce a powerful "sense of belonging" (70), as other members are supposed to have joined for the same reasons and therefore to hold the same convictions. Among the results are simultaneous feelings of individual freedom and group solidarity. As Warner puts it, the formation of publics troubles the distinction between "intimacy

and strangerhood” by showing our “dependence on the co-presence of strangers in our innermost activity” (75). In other words, publics build our sense of individuality by being voluntary, while at the same time they support the rightness of our choices with the knowledge that others are freely making the same choices. “The benefit in this practice,” says Warner, “is that it gives a general social relevance to private thought and life. Our subjectivity is understood as having resonance with others” (77). A member of the newly formed New Mexico Game Protective Association could feel empowered by his choice to join, and have the rightness of that choice reinforced by the fact that others of like mind had also joined.

Barbara Cruikshank examines a similar set of overlapping public and private phenomena, arguing that they act as the primary means by which democratic forms of government exercise power. For Cruikshank, civil-society or government-sponsored organizations (like the NMGPA) form publics out of individuals who lack political and social power by creating a path *toward* that power. But the path is always defined by the already-powerful group, and so, according to Cruikshank, serves as a tool for casting *power as empowerment* – that is, as making change from without seem like a change from within. She calls this phenomenon “the will to empower.” The will to empower, which can be a force for positive social change, often comes from a sincere desire to give political agency to those who lack it, but is always mired in power politics. In Cruikshank’s words, “The will to empower may be well intentioned, but it is a strategy for constituting and regulating the political subjectivities of the ‘empowered’” (68-9).

Cruikshank, like Warner, sees these “empowered” citizens as formed by discourses, which she calls “technologies of citizenship.” These are spoken or written

discourses that direct citizens' behavior toward a condition of increased social or political capital. Cruikshank argues that when individuals take up these behaviors they become technologies of citizenship themselves. "Technologies of citizenship," says Cruikshank, "are voluntary and coercive at the same time; the actions of citizens are regulated, but only after the capacity to act as a certain kind of citizen with certain aims is instilled. Democratic citizens, in short, are both the effects and the instruments of liberal governance" (4). In other words, when citizens of newly forming publics follow the path provided by empowering organizations, through a combination of self-will and direction, they are both responding to and enacting technologies of citizenship. In a liberal democracy, which relies on the soft power of discourse more than the hard power of physical violence, "citizenship" in Cruikshank's sense holds the possibility of change, but leverages those changes towards the interests of those already in power. "Like any mode of government," says Cruikshank, "democracy both enables and constrains the possibilities for political action" (2).

The following section will show how the *Pine Cone's* sportsman-citizen ethos functioned as a technology of citizenship in early-twentieth-century New Mexico aimed at forming a conservationist hunting public. Reacting against widespread American overhunting that had been the subject of activist writings since the eighteenth century, Leopold directed this ethos toward the "environmentalist" end of maintaining biodiversity in the Southwest. Warner helps us see how the sportsman-citizen ethos might have worked at the level of the individual reader either internalizing its code or seeing the code as a validation of traits he believed he already possessed. And Cruikshank shows how such discursive power helps to maintain the status quo in a democracy while

simultaneously creating a space for individual political agency. This combination of close rhetorical analysis with social and political theory allows for a deep reading of the *Pine Cone* itself and enriches our understanding of how ethos-driven persuasion works in the larger contexts of democratic politics and social movements. It also provides a deeper understanding of Leopold's activities in the Southwest, a period of his career explored less often by historians, and not at all by rhetoricians.

The Voluntary and Coercive Nature of Sportsman Citizenship

One of Leopold's most concise statements of the NMGPA's exigence and mission came in a letter to a Russian conservationist named Boris Zakharoff who wrote to Leopold in May 1917 from Kharkow (now in eastern Ukraine) to inquire about "the protection of birds, game and fish in America" (Zakharoff). Quoting it at length here gives us a window into Leopold's own view of the new public he was forming in New Mexico and the role the *Pine Cone* played, and provides historical context for the NMGPA. Says Leopold:

Restrictive legislation aimed toward the conservation of wild life has until recently been considered to be a function of the several states. Generally speaking, the State game laws have in recent years been improved and are now fairly good, but particularly in the sparsely settled States they are very poorly enforced [...].²¹

Leopold enclosed with his letter copies of the *Pine Cone*. Speaking more specifically of it and the Association's purpose, he says,

Realizing that laws alone will probably never succeed in bringing back the wild life of the United States, the last ten years have witnessed a

remarkable growth in the organization of public sentiment as a supplement to legal restrictions toward the end of wild life conservation. [...]

[...] Two years ago very little had ever been done to check the rapid disappearance of the remarkably varied and valuable fauna of this State. The game laws were practically unenforced except in the neighborhood of a few large towns and the hands of the State Game Department were tied by politics. The average citizen in the outlying districts had little or no conception of game conservation. [...] Our first effort was to start something in the way of public education which was accomplished primarily through the medium of our quarterly paper, copies of which are enclosed.

Leopold saw the *Pine Cone* picking up where the law – never complete in its ability to effect behavioral change – left off. Its purpose was to create a public of sportsman citizens by “educat[ing]” them about conservationist tenets, though its tone, as revealed below, is much more ironic, and in some cases belligerent, than educational.

Through the forceful ethos of the sportsman citizen, the *Pine Cone* sought to create a new public. An important rhetorical tactic in the formation of this ethos was that he (and, with the exception of the next example, it was always understood to be a *he*) was treated in the *Pine Cone* not only as a *prescription*, but as a *description*. Sportsman citizens were flesh-and-blood others in the real world who could take up residence in readers’ minds and act as behavioral guideposts, playing out the interweavings of “intimacy and strangerhood” described by Michael Warner. Each issue of the *Pine Cone* repeats or adds to the stock of characteristics inherent in the sportsman, and hence to the

list of traits its readers had to embody and actions they had to take to be members of the public the NMGPA was trying to create.

One example of the sportsman-citizen as both an ideal for readers to aspire to and an enforcing presence in the field appears in an October 1917 article titled “Every Citizen a Game Warden.” Its first paragraphs reference New Mexico’s understaffed and underfunded game warden infrastructure and illustrate the jaunty tone that characterizes the *Pine Cone*’s style:

There are 70,000,000 full sized acres of land in the State of New Mexico.

To effectively prevent violations of the game laws solely through regularly constituted officers of the law would require the service of *7,000 game wardens*.

At a salary of \$1,000 per year it would take *\$7,000,000 a year to pay them*.

Our State Game Department lacks just \$6,985,000 of this small sum. It lacks wardens in proportion.

Who, then, is going to see that the game laws are enforced – our handful of wardens?

The article goes on to describe a rare conservationist victory in the Sandia Mountains east of Albuquerque, despite the lack of wardens: while pigeons all over the West were being “lawlessly killed off,” blue rock pigeons were thriving in the Sandias. In the only instance of a woman sportsman appearing in the *Pine Cone*, the author claims that these pigeons owe their lives to the “lady-in-charge” of the Las Huertas ranch, who watched over the pigeons, placed a call to Albuquerque if she saw anyone illegally killing them, and told

everyone she sees “how all the neighbors [were] trying to protect [the pigeons] in accordance with the law, and how most of the men folks belong[ed] to the G. P. A.”

As in later popular writings of Leopold’s, the author here establishes a lighthearted and likable ethos which he uses to drive home a serious point: *we need you, reader, not only to abide by game laws but to help enforce them. If hunting in our state is to have any future, this is what you must do.* This was the code of the sportsman citizen as established by the *Pine Cone*. The enjoyment of outdoor sports was to be translated into citizenly action out of a sense of ethical responsibility. But if this translation failed there were true, morally superior sportsman citizens watching and waiting. There was inner motivation in the form of a code “freely” adopted, and outer motivation in the form of watchful others.

In other articles the ethos of the author himself serves as the sportsman citizen actively engaged in shaming his moral inferiors unwilling to abide by the code. The October 1916 *Pine Cone* included a boxed feature with huge centered lettering, taking up two columns in the middle of the issue’s third page, that strongly urges hunters to confront anyone they see shooting game out of season (derisively called “game hogs”):

MR. CITIZEN

[...]

DO YOU WONDER why it is so hard for the legitimate

sportsman to find his buck?

Do you realize WHY these conditions exist? They exist

because

YOU DON’T CARE

Because you, when you see a game hog that ought to be
 “pulled,” say to yourself, “Let John do it.”

Because you, when you hear a law-breaker bragging, smile,
 and let him think: “Ain’t I brave.”

Next time why don’t you look him square in the eye and
 call him what he is –

A SNEAK THIEF

The direct address in this feature assumes that anyone reading the *Pine Cone* would not himself hunt deer out of season; to suggest that the simple act of abiding by existing game laws was anything other than a foregone conclusion would admit that some readers might remain unconvinced of the laws’ legitimacy. Abiding by game laws, then, was the minimum requirement for being a “legitimate sportsman.” More to the point, the person being addressed is acknowledged as occupying this minimal and unsatisfactory status and is commanded to go farther, to not only behave in a certain way on the hunt but to castigate those who do not, thereby rising to the level of the speaking ethos. As a true sportsman, the bearer of this ethos acted according to a moral code that he and the members of his public had internalized. Holding others to it was not to be a pawn of laws, and thus of the government, but to abide by a higher standard shared by a set of elite others. A key part of this standard was a willingness to act in the presence of these others. If one was to be in the company of the sportsman citizen, holding correct opinions was not enough.

In both of the above examples, the agent chooses to enact a code that originates not in law but in morality. The “lady-in-charge” keeps a watchful eye out for “game

hogs” because she loves “the pigeons fluttering and cooing in her yard” (“Every Citizen”). The unnamed ethos of the “MR. CITIZEN” feature places a high value on “find[ing] his buck,” but he acts because, unlike the castigated reader, he is not afraid of confrontation and indeed prefers it to the depletion of the state’s deer. These two personae were meant to stick in readers’ minds as ideals and enforcers, representing what Warner calls, as quoted above, “the co-presence of strangers in our innermost activity” (75). While the sportsman-citizen code is characterized as a series of free moral choices, the method by which it is actually spread is an ethos, or series of united *ethoi*, that direct individual behaviors in complex ways.

Further complicating the controlling ethos of the *Pine Cone* is the fact that its immediate source was the federal government, whose interests it served. As noted above, Leopold travelled the state and united its game conservation groups under the banner of the NMGPA at the behest of the United States Forest Service, his employer. Historian Louis Warren, who has written about Leopold’s simultaneous work with the NMGPA and the Forest Service, considers Leopold’s wildlife campaign in the Southwest to be part of the federal government’s larger project of transforming local commons areas shared by small communities into a nationwide commons of wildlife under its centralized control (72). In this context the conservationist aims of the *Pine Cone*’s sportsman-citizen ethos take on the power-centric qualities of Cruikshank’s technologies of citizenship. As an ethical code propagated by the NMGPA, a civil-society organization, sportsman citizenship comprised a “voluntary” set of behaviors followed for their moral correctness. But as part of a larger project of governmental control of natural resources, these behaviors were also “coercive.”

The ethos at the center of the *Pine Cone*, then, was a rhetorical means to a private ethic enforced by public morality and, less obviously, public institutions. The immediate cause to which it addressed itself was wildlife conservation, and there was, by the early twentieth century, an American tradition of sportsman-conservationists. But this tradition was also immersed in nineteenth-century racial and class-based tensions. The next section briefly turns away from the *Pine Cone* to look at the history that defined it and its central ethos.

Sowing Contradiction: The Sportsman in History

The ethos-based arguments of the *Pine Cone* and the larger mission of the NMGPA came at the tail end of a sportsman-led conservation movement that can be traced back to the late eighteenth century. Reviewing this history uncovers the roots of the sportsman-citizen ethos, showing how a rhetorical persona like Aldo Leopold's drew from historical and national contexts to confront local problems. An historical perspective will allow us to explore some of the contradictions at the heart of Leopold's early-career political rhetoric.

The source of these contradictions has to do with the complex relationship between European aristocracy and American hunters. By the early twentieth century the only ostensible connection was that sportsman citizens like Leopold used old Europe as an elitist foil to the everyman American hunter. But the latter and his code were direct descendents of the former. The European roots of the American sportsman can be traced to the first of what were once called "shooting books," which appeared in 1783. Penned by an author who referred to himself only as "a Gentleman," who was, according to historian John Reiger, "probably a British army officer stationed in" the states (7-8), *The Sportsman's Companion* describes a series of hunting trips in New York. A second,

similar work was published in 1827, also by a man identifying as “a Gentleman,” titled *The American Shooter’s Manual*. Interspersed into the hunting narratives of both books are early examples of what Reiger calls the “code of the sportsman,” moments when the authors delineate the “self-imposed restraints” that characterized the gentleman-hunter and separated him from lower-class subsistence and market hunters (Reiger 6-9). In the 1840s a British immigrant writer named Henry William Herbert argued pointedly that the American urban upper classes, in danger of succumbing to the ease and convenience of urban life, could be saved only by adopting the hunting habits and codes of the English aristocracy. Had his readers known he was British, they might have shrugged him off, but he took cover under the suitably rugged pseudonym Frank Forester and affected the American consciousness profoundly. Historian Daniel Justin Herman says,

Before Herbert, commented his friend and biographer, Thomas Picton, the term ‘sportsman’ savored of card playing and horse racing; after Herbert, the term ‘sportsman’ applied to respectable professionals and businessmen who practiced ‘the wholesome, exhilarating excitements’ of hunting and fishing. (173)

Despite its European roots, or perhaps because of them, the sportsman figure in America soon functioned as a means of *separating* the New World from the Old. One of the major ways it became “American” rather than “European” was through association with the mythologized frontiersman, who was himself closely associated with the American Indian. One such figure was Daniel Boone. In actuality, Boone was a barely literate market hunter, a perfect analog to William deBuys’s “adventurous, dirty infidel” (89) – his characterization of the trappers and miners who, around the time of Boone’s

death in 1820, were flooding into New Mexico. But in the panoply of literary and visual representations of Boone that proliferated in the decades before the civil war, he became an Americanized Byronic hero of the wilderness: independent and courageous, with a canny, bodily intelligence, and scornful of anything remotely attributable to “society” in all its forms (Herman 93-113).

By the beginning of the civil war, men proudly calling themselves “sportsmen” – middle- and upper-class recreational hunters, mostly white and urban – were members of a well organized movement whose ethos was decidedly unique from its European forbears. These sportsmen joined hunting clubs and game protective associations that pushed for new restrictive laws defining what could be hunted where and when, and, judging by the number of books and periodicals that advocated their causes in post-civil-war America, they wrote and read prodigiously. Reiger argues that magazines of this time, like *The American Turf Register*, *The Spirit*, and, starting in the 1870s, *Forest and Stream*, did an enormous amount to establish the sportsman’s code as an American phenomenon (Reiger 35-43).

As a hunter and amateur naturalist from an early age, Leopold was heir to this tradition in a number of non-quantifiable ways, but a direct link can be established through one of his major influences: Theodore Roosevelt. Leopold read Roosevelt’s books and magazine pieces (Meine 55, 128), and absorbed his philosophy indirectly at the Yale Forest School during the Roosevelt administration. The School was founded by Gifford Pinchot, Roosevelt’s Secretary of the Interior and primary partner in conservation matters. The Pinchot-Roosevelt doctrine of “wise use,” focused on the economic value of natural resources (and, more fundamentally, on nature as a resource for human use), also

permeated the Forest Service, which Leopold joined the same year that Roosevelt left the Presidency. Even so, his influence on Leopold likely remained strong. In January 1917, Roosevelt wrote Leopold personally to congratulate him on his work with the NMGPA. The full letter reads,

My dear Mr. Leopold,

Through you, I wish to congratulate the Albuquerque Game Protective Association on what it is doing. I have just read the *Pine Cone*. I think your platform simply capital, and I earnestly hope that you will get the right type of game warden. It seems to me that your association in New Mexico is setting an example to the whole country.

Roosevelt was the preeminent sportsman of his day. In books like *Hunting Trips of a Ranchman* (1885), *The Strenuous Life* (1900), and *Outdoor Pastimes of an American Hunter* (1905), he cultivated the ethos of the masculine frontiersman hunter and connected it to the strength of the nation. With Frederick Jackson Turner, he argued that the closing of the frontier in 1890 marked a fundamental loss of American identity. Historian Douglas Brinkley points out, in fact, that Roosevelt himself may have been the inspiration for, if not the originator of, Turner's famed "frontier thesis" (Brinkley 241), which placed the American frontiersman in a middle space between Indians, seen as savage, and Europeans, seen as effete (F. J. Turner 3-4). For Roosevelt especially, the loss of big game animals meant the loss of the particularly valuable brand of masculinity earned in hunting them.

Roosevelt's brand of hyper-masculine conservationism, embraced by Leopold in and beyond the *Pine Cone*, stood in stark contrast to what is now called the

“preservationism” of John Muir,²² not least for the gendered ways in which these men were popularly presented. Roosevelt was the man’s man, eager for a hunt or a fight. Muir, in leading the march against the development of Yosemite’s Hetch Hetchy valley, aligned himself with a nationwide grassroots movement characterized by one Sierra Club member as “short-haired women and long-haired men” (Worster *A Passion for Nature* 433). The battle over Hetch Hetchy was at its hottest point in 1909, when Leopold arrived in the Southwest to begin his tenure with the Forest Service. In that year, a San Francisco newspaper, the *Call*, printed a cartoon that depicted Muir in a dress frantically trying to beat back a huge wave, labeled “Hetch Hetchy Project,” with a broom (Worster *A Passion for Nature* 434).

Leopold cited Muir as an inspiration in some of his writings, but in the *Pine Cone* it was Roosevelt’s ethos of the masculine sportsman that he channeled. As with Roosevelt, the ethos was something of a compensation. Where Roosevelt had grown up sickly and confined to the indoors much of the time, Leopold had been utterly defeated by the mountains of northern New Mexico. No longer able to brag to his parents and siblings of his feats of outdoorsmanship, Leopold constructed a public persona in the *Pine Cone* of the rugged hunter, a type that was familiar to his sport-hunting audience.

One of Leopold’s clearest expressions of the frontiersman ethos came well after the heyday of the *Pine Cone* in an article titled “Conserving the Covered Wagon” that he wrote for *Sunset* magazine in 1925. In the tradition of Turner and Roosevelt, he argued that freely available contact with wildlife or time spent in its pursuit reenacted the frontier narrative he saw as essential to the American spirit. Maintaining this availability, Leopold said, was “conserving the covered wagon,” and to lose it was to lose an appreciation for

the lives led by our forebears. “Our fathers set great store by this Winning of the West,” he says, “but what do we know about it? Many of us have never seen what it was won from. And how much less will the next generation know?” (21).

Even more important than *knowing* who “our fathers” were or what they went through was *being* who they were, something Leopold felt could be accomplished by entering the wilderness to fend for one’s self. To “flee the city, throw a diamond hitch upon a pack-mule, and disappear into the wilderness of the Covered Wagon Days” was quite literally to become “a pioneer,” and to bring home “the hide of a brown bear” or other such trophy was to “justif[y] the Blood of the Conquerors” (21). For Leopold, the essence of modernity lay not in technology but in the ontological options humans had secured for themselves: “[T]he measure of civilization is in its contrasts. A modern city is a national asset, not because the citizen has planted his iron heel on the breast of nature, but because of the different kinds of man his control over nature has enabled him to be” (“Conserving” 21). While wilderness and wild game remained, the option to be a pioneer was still available. Once either disappeared, the degree to which modern man was “civilized” would be lessened.

But the contradictions buried in the frontiersman-sportsman ethos were many, and as we will see in the remainder of this chapter, they permeate the *Pine Cone*. First, the sportsman ethos and code were seen as avenues away from effete European softness, but were in fact direct descendents of Europe. Second, they were championed as democratic ideals available to all, but self-described sportsmen were most often middle- or upper-class Anglos who directed their activism against subsistence and market hunters. Daniel Justin Herman notes that “[s]port hunters [...] tended to target neither the epicures who

consumed game, nor the railroads that transported it, nor the restaurateurs who served it, but the workaday men who were paid to supply it” (246). This irony is particularly bitter when one considers that actual frontiersmen, including Daniel Boone himself, hunted for food and money. Third, the sportsman-frontiersman ethos was popularized in large part through his identification with American Indians at the same time that he played a major role in taking their lands. The closeness of this association led Herbert to coin the term “American Native” to refer to mythologized sportsmen like Boone, “the civilized man who was as skilled in woodcraft, tracking and hunting as the Indian” (95), but was held as a cultural hero and model as real Indians were shunted westward by force.

Reaping Contradiction: The Sportsman in the *Pine Cone*

To this point we have seen how the sportsman-citizen ethos of the *Pine Cone* functioned at the intersection of private ethics, public mores, and public institutions. We have also seen the deep historical roots of the sportsman ethos and some of its contradictions. In this section, the above historical perspective will allow us to flesh out those contradictions by exploring another way that Leopold and his NMGPA brethren defined the central ethos of the *Pine Cone*: by consistently reminding readers of what it was *not*. Throughout the *Pine Cone* the public of sportsmen citizens was reinforced with illustrations of who could not be a member and which principles were antithetical to sportsman citizenship. In this tactic was embedded the historical contradictions of the sportsman-citizen ethos, for it was constructed in opposition to the very antecedents to which it owed its existence: aristocratic European hunters, and market and subsistence hunters including the Navajo, Apache, Pueblo Indians and *Nuevomexicanos* that populated New Mexico in the early twentieth century.

But to say that the sportsman-citizen ethos was *only* a set of contradictions would be unfair and inaccurate. In truth it was a rhetorical response to the very real problem of biodiversity loss. By the time Leopold arrived in the region in 1909, New Mexico's game population had been on a downward slide for decades. J. Stokley Ligon, a surveyor for the Biological Survey and a friend of Leopold's, noted that land east of the Pecos River in New Mexico and Texas had once been home to big game and "swarmed" with quail "in incredulous numbers," but that by 1910 none of these animals were still in evidence (*Wild Life* 43). This was emblematic of the rest of the state. Decades of year-round hunting had played a part, particularly in the north, while the south, already arid and fragile, was upset by fire and the unsustainable farming practices of homesteaders (*Wild Life* 38).

The biggest driver of ecological change and loss of animal habitat in New Mexico, however, was widespread overgrazing by sheep and cattle. The ranching industry in the state had exploded shortly after the Atchison, Topeka, and Santa Fe Railway came in 1879 (deBuys 219). In five years, the number of cattle in New Mexico grew nearly a hundred-fold, and the influx of sheep increased at the same rate but in even higher numbers: by the late 1880s there were 1.25 million cattle and nearly five million sheep (deBuys 219-20) in a state populated by roughly 160,000 people ("New Mexico"). Grazing animals ate the forage that deer, antelope, and elk fed on, and the grasses, shrubs and trees that they used for nesting and cover. Underfed and overly exposed, their numbers dwindled (Ligon *Wild Life*). Sheep and cattle also changed the ecosystem in more fundamental ways. By eating back the deep-rooted native grasses, they deprived the soil of the organic matter that held it together against harsh wind and rains, and the sheer

weight and incessant pounding of the herds hardened the ground, further reducing its capacity to absorb moisture (deBuys 222).

The sportsmen of the NMGPA, however, did not go after ranchers as culprits of biodiversity loss, but in fact were allied with them in worsening it. In the masthead of the *Pine Cone*'s first issue and in later issues, one of the items in a numbered list comprising "Our Platform" states, "We stand for co-operation with stockmen in a systematic campaign against the predatory animal menace to game and livestock." This attitude toward predators was the exact position Leopold would later disavow in "Thinking Like a Mountain," but his public support for the biggest driver of ecological damage in the Southwest was never part of his *mea culpa*. It should be noted that Leopold was closely tied to New Mexico's ranchers in at least two ways besides their shared disdain for predators. First, as a ranger and then a supervisor in New Mexico's national forests, he would have worked closely with ranchers who grazed their herds on public lands and paid fees that helped the Service manage the forests.²³ Second, the family of his wife, Estella, whom he married in 1913, two years before the first issue of the *Pine Cone*, ran one of the largest sheep-ranching operations in the region (Meine 111). Leopold does not mention the latter connection in any personal or professional documents that I have found, but he was closely attuned to the intersection of state politics, wildlife conservation, and public land management. His intertwined interests in maintaining good relations with ranchers would surely have been on his mind.

Unwilling to alienate the state's most powerful economic elites and at that point only slowly coming to understand their connection to wildlife loss, the NMGPA and the state government focused their conservation efforts on limiting the activities of individual

hunters. Between 1895 and 1905, hunting of big game (deer, elk, antelope) was restricted for nine months of the year, killing of deer was limited to antlered bucks, and no one person could take more than one buck per year (Warren 90). In working to help enforce these laws and pass new ones, it trained its biting, ironic, sometimes militant prose on wealthy landowners trying to set up private game refuges (who deserved it, but were not harmed by it), and subsistence hunters (who were much less deserving and more harmed by it). It was these groups that served as the negative examples against which the *Pine Cone*'s central sportsman-citizen ethos defined itself.

The *Pine Cone* devoted a good deal of ink to demonizing wealthy advocates of private game preserves, holding "The European System" of private shooting clubs as a warning about what would happen if hunting laws were not actively enforced by wardens and sportsmen alike.²⁴ As the *Pine Cone* argued, in the wake of this system in which only wealthy hunters would be able to afford the sport, as had happened in Europe, would come a dangerous softening of American masculinity and a cynically profit-minded view of wildlife.

An article titled "All the Wild Game You Want," in the April 1916 issue, uses the European system to argue against a group advocating a laissez-faire approach to wildlife conservation. The group, the Hercules Powder Company, had asserted in a pamphlet that abolishing game laws and kill-limits would spur private land-owners to breed game and open their acreage to hunting, solving the game shortage. The *Pine Cone* countered by claiming that the free-market Hercules plan would create European-style private hunting grounds that only the well-heeled could afford: "[W]e do not want to be bigoted, dogmatic, narrow-minded, provincial or unduly socialistic, but ... [w]e submit that in

plain United States, [the Hercules plan] means THE EUROPEAN SYSTEM. [...] It means the DEATH KNELL OF DEMOCRACY in sport with dog and gun” (2).

As with all the *Pine Cone*'s rhetorical tactics, reference to the European system had a practical purpose. In New Mexico at the time of the *Pine Cone*, a significant portion of its hunting grounds and its game *were* privately owned. In the late nineteenth and early twentieth centuries, huge tracts of New Mexico's lands were held in land grants by citizens of Spanish and Mexican descent, but many of these grants were broken up and seized by unscrupulous American settlers.²⁵ Powerful American landowners in the New Mexico territory angled its laws, unlike eastern states, so that game animals on one's land were considered private property (Warren 72-3). In this sense, a European system of game ownership was more of a threat in New Mexico than in other places.

But the sportsman-citizen ethos deployed by the *Pine Cone* was, historically speaking, a product of that very system. Further, the warrant of democracy did not ring true for the many hunters whom the NMGPA demonized just as thoroughly as European-style landowners, hunters who resembled the frontiersman of Leopold's "covered wagon days" far more than the members of the NMGPA.

The *Pine Cone* used its sportsman-citizen ethos to create a public of recreational hunters that excluded those New Mexicans who most depended on the state's wildlife for their daily needs. In the culturally diverse state of New Mexico, the *Pine Cone* did not risk overt appeals to racial animus in the manner of other conservationists, as will be shown below. But by subtly scapegoating *Nuevomexicanos* and the region's American Indians, the *Pine Cone* signaled to the public it was trying to create precisely who would *not* be a member, thereby making membership in that public more attractive.

The *Pine Cone* made it clear that the true sportsman-citizen was a recreational hunter, not a subsistence hunter nor a market hunter (as the true frontiersmen had been). One of a number of articles to tackle the issue of subsistence hunting directly was titled “Game As a Food Supply,” appearing in the July 1917 issue:

[W]ild life conservation *is not* primarily a food supply proposition. Think twice, Mr. Sportsman. When you see a flock of mallards dropping into the old pond at sunset, are they nothing to you but thirty pounds of meat divided into ten bundles of three pounds each? If that’s all they are to you, don’t shoot! Save your shells and go home and buy a beefsteak. It’s a more conservative investment.

Seeing animals as food was untenable and vulgar to the sportsman citizen, who could choose among a range of options for supplying himself and his family with meals. The notion of choice was central. It implied that hunters could see animals in the wild any way they wished – as food, as sport, or as an expression of divine beauty. This meant that those hunters who killed for food voluntarily renounced the mantle of “sportsman” and so deserved any punishment ascribed to them by law.

The sportsman and non-sportsman were certain kinds of people, points driven home repeatedly in the pages of the *Pine Cone*. One short piece presenting the two types tells the story of a “protectionist” NMGPA member fishing in northern New Mexico and talking briefly with a “native” who suggests fishing by hand:

Inquiry as to the “by hand” method of fishing led to information that above the lake the stream divides and then comes together again, forming an island. The native stated that one of the branches is easily dammed and

that it then goes dry. When the water has been diverted out of the branch it is only necessary to pick up the good sized fish which are left flopping high and dry. If the water is again let in promptly the *small* fish are kept from perishing. (True sportsmanship!)

The protectionist [. . .] was told that all of the native people took their trout in this manner [. . .]. (“A Pleasant Diversion”)

To someone getting fish for subsistence – whether selling, trading, or eating the fish – the diversion method made far more sense than tossing a fly on the surface of the stream and hoping for a bite. But one key tenet of sportsmanship, as historian John Reiger says, was to “give game a sporting chance” (3). Therefore only the latter was sportsmanlike. The *Pine Cone*’s would-be sportsman readers are directed to sympathize with the “protectionist” and scorn the “native.”

Who were these two types, more specifically? Historians generally agree that self-described “sportsmen,” from the nineteenth century through to the twentieth, were primarily middle-class, professional, urban-dwelling Anglo men, like Leopold (Warren, Herman). For them, hunting was a way of maintaining their masculinity in what they saw as an increasingly feminized culture. In Leopold’s early twentieth century, men were increasingly likely to spend their days indoors working at the minutiae of running businesses or government offices rather than in the rugged outdoors. Leopold was especially stung by this reality at the time he was publishing the *Pine Cone*. Having begun a career in forestry that kept him outside, his bout of exposure turned him into an indoor worker for several years, and even after his long recovery he never regained the independence he once enjoyed.

In contrast, the subsistence-hunter “natives” of New Mexico, in the language of the *Pine Cone*, lived lives far closer to the mythical frontiersman ideal of American conservationists. They consisted mainly of Apache, Navajo, and Pueblo Indians, and *Nuevomexicano* villagers (though several successful ranchers were members of this broadly diverse latter group). To varying degrees, all of them relied on hunting for food, clothing, income, and to supply materials for daily life, shelter, and religious and cultural ceremonies. Though there were conflicts between them, the region had supplied all of these people with game for centuries before American Anglo settlers began pouring into the region in 1821, when Mexico gained independence from Spain and declared itself open for trade with the expanding United States of America. Less than a century later, New Mexico was one of those United States and had been emptied, or nearly so, of elk, mountain sheep, ptarmigan, beaver, and grizzly bear (deBuys 92-100, 280-81).

The *Pine Cone* defined *Nuevomexicano* subsistence hunters as all that the sportsman citizen was not, but as it did so the people themselves were making the hard transition from a subsistence to a cash economy (deBuys 204-10, 247) that put hunters and small ranchers in direct conflict with Leopold’s two primary constituencies: the NMGPA and the Forest Service. In the new economy, hunters were more likely to kill for the purpose of selling game to others who needed food or to restaurants that catered to wealthy urban patrons. The *Pine Cone* addressed the latter practice in an article titled “Underhanded Epicures” that labeled patron and hunter alike as “game hogs,” the NMGPA’s pet slur for non-sportsmen. A small sampling gives a hint of its attitude and tone:

The men who catch trout to sell are mostly ignorant and irresponsible. But the men who illegally buy trout to eat cannot plead ignorance. There is only one way to describe their acts:

They are BRIBING the ignorant to do their DIRTY WORK for them.

They are PROSTITUTING the irresponsibles to TICKLE THEIR PALATES.

While the NMGPA distinguished itself by calling out “epicures” in a way that other conservationist groups around the country did not (Herman 246), the “irresponsibles,” of course, were engaging in the very “pioneering” acts that American frontiersman practiced in the “covered wagon days.”

In the same way that subsistence hunters clashed with the NMGPA, small ranchers clashed with the Forest Service in the new economy as the federal agency came to realize the destructiveness of grazing. As New Mexico historian William deBuys has written, “Where the villagers saw a vast mountain range that had sustained their forefathers and would sustain them too, the Forest Rangers saw land in the dire final stages of a long-running ecological disaster” (210). Undoubtedly the Forest Service had a duty to protect the landscape, but the irony of Anglo settlement could not have been lost on *Nuevomexicanos*. The same group that brought the means of ecological destruction also brought restrictive solutions to restore the land to the state it had been in before they arrived.

The NMGPA’s relationship with New Mexico’s Indian population was similarly fraught with contradiction and bitter irony. While praising them indirectly through the

frontiersman ideal that hunting was supposed to maintain and directly through references to the myth of the noble savage, the *Pine Cone* and Leopold himself worked to take their lands and treated them as atavistic creatures of the past rather than present people deeply invested in the state's wildlife.

The NMGPA logo (Figure 1, next page) on the first page of every *Pine Cone* illustrates the bulletin's contradictory attitudes toward American expansion and New Mexico's Indians. In the center of the logo is a buffalo skull canted at a slight angle, the horns and snout extending just beyond a circular border that contains the words "Game Protective Associations of New Mexico." In the background the sun sets behind shadowed mesas under the NMGPA's rallying cry to "Remember the Buffalo," a slogan peppered throughout the *Pine Cone*. Implied in the entreaty, which is amplified by the setting sun, are the dwindling numbers of game species available to hunters in the Southwest and the need for individual and legislative action to keep deer, elk, mountain sheep, and waterfowl from going the way of the buffalo, by this time nearly extinct. While this conservationist message was necessary at the time, its delivery in the logo and



Figure 1: NMGPA Logo

the arguments of the *Pine Cone* embody a clash of competing stories. The pioneer narrative explicitly touted by Leopold, Theodore Roosevelt, and other prominent conservationists celebrated a conquering spirit essential to American identity that was in danger of being extinguished with the closing of the frontier and the exhaustion of big game. The narrative implied in the logo, however, was an unmitigated tragedy of waste in which the settlers of the West squandered its resources. On the one hand, the message was, *Shame on the pioneers for slaughtering the buffalo*, but on the other, it was, *We must keep our wild game so that we can be like the pioneers*.

Illustrating a further contradiction, the American pioneer undergirding the logo and the sportsman-citizen ethos drew heavily on sympathy for Native Americans without acknowledging them directly. The mythical pioneer embodied in the characterization of Daniel Boone, as noted above, was based in large part on Native skill and courage in hunting. Similarly, the buffalo was closely associated with Native American nobility, strength, and disappearance. The NMGPA used the buffalo skull as a way of channeling anxiety about expansionist brutality into concern for animals, but not for people. This was part of a tradition, nearly a century old, that expressed itself in conservation movements as well as in Western art.²⁶ Those native peoples, of course, were treated brutally by the same westward movement that decimated the buffalo. The NMGPA logo called attention to the destructive aspects of expansion that served its purposes and ignored those that did not, while the arguments in the *Pine Cone* glorified the pioneer spirit of expansion that the logo decried.

At the heart of such selective attention to the negative effects of expansion is an opportunism that revealed itself more clearly in an article by the government surveyor J.

Stokley Ligon. His topic was conserving New Mexico's elk, but his rhetorical strategies show the NMGPA's willingness to call upon sympathy for Native Americans only to divert it towards wildlife:

But the elk, that noble creature, who here made a last and desperate stand for his claim on the home that he had so long been master of, has been forced to go the route of the buffalo. Elk should be brought back to the Sacramento [Mountains]. We are practically assured by the Indian department that if Elk are placed in the reservation, they will get the proper protection. Let us not rest until we bring them back. (Ligon "Turkey")

There is a kind of anthropomorphism at play here that is all the more remarkable for taking place under the aegis of the "Indian department" within the "reservation." Ligon's article, like the buffalo-skull logo, draws power from two sets of violent expansionist acts – the decimation of wildlife and the brutal treatment Native Americans – in the service of confronting only one of them.

The *Pine Cone* also contained attacks on New Mexico's native peoples that were more direct. The back page of the July 1917 issue was a poster ("Tack this sheet on your wall," it says at the bottom) claiming that the 20,000-acre "Navajo Country" in northwest New Mexico and northeast Arizona was an "Advance Sample of Gameless America" that was "Stripped Clean of Every Living Thing Bigger Than a Coyote." ("An Eye Opener for Optimists"). At the center is a drawing of a barren landscape behind a large barrel containing "The Remnant of Wild Life." The barrel is shot through with holes from which torrents of water spill; the most prominent of these is labeled "Legal Slaughter."

It is likely that the poster refers to Indian sovereignty as it related to game laws, about which there was considerable anxiety among conservationists. Hunting rights figured prominently in treaty negotiations between Indian tribes and government officials in the mid-nineteenth century. In many treaties, tribes maintained the right to hunt as they wished on their own lands as well as on other lands. One phrase that appears repeatedly in treaties gave native peoples the right “to hunt on the unoccupied lands of the United States so long as game may be found thereon” (qtd in Spence 32, 147 note 28). William Temple Hornaday, one of the nation’s leading wildlife activists and profoundly influential on Leopold and the *Pine Cone*,²⁷ was incensed at the idea that Indians would not have to follow federal or state game laws. In his 1913 book, *Our Vanishing Wild Life*, which Leopold called “the most convincing argument for better game protection ever written” and advocated giving as a holiday gift (“A Christmas Suggestion”), Hornaday says,

The Indian should have no game advantages whatever over a white man. He does not own the game of a region, any more than he owns its minerals or its water-power. He should obey the general game laws, just the same as white men. In Africa, as far as possible, the white population wisely prohibits the natives from owning or using firearms, and a good idea it is, too. I am glad there is one continent on which the ‘I’m-just-as-good-as-you-are’ nightmare does not curse the whole land. (176)

Much of Hornaday’s book shows the racial animus that stoked many conservationists at the turn of the century. Two of his chapters, “Destruction of Song-Birds by Southern Negroes and Poor Whites” and “Slaughter of Song-Birds by Italians” are largely devoted

to connecting mass-killings of animals with racial or cultural tendencies. Despite Hornaday's impatience with Indians' so-called "game advantages," however, territorial and state game commissioners still tried to enforce laws over Native Americans that should not have applied to them, and because treaties differed across tribes and the status of a given plot of land was not always clear, native hunters could be chased out of places they considered their own, sometimes violently (S. Turner, Warren 1-3).

The *Pine Cone*, then, defined New Mexico's long-time inhabitants as the antithesis of the sportsman citizen. Even as the state's Indians and *Nuevomexicanos* embodied in many ways the ideals of the sportsman far more than the NMGPA leaders themselves, the private ethic that the *Pine Cone* constructed as a means of enforcing hunting laws was directed away from them and toward recreational hunters. But how did it serve the *Pine Cone* to demonize the hunters with the longest tradition of sustained interaction with the state's wildlife? Louis Warren argues convincingly that the NMGPA's bid to unite the state's recreational hunters was successful *precisely because* it scapegoated Indians. Warren's historical account shows that one of the few sentiments shared by New Mexico's wealthier hunters was simple race- and class-related animus directed against the groups the *Pine Cone* demonized.

The sportsman citizen's status as a recreational hunter was, through a long historical tradition, coded white, but appeals to recreational hunting also helped to reinforce the gendered space of the hunting grounds. Subsistence hunting was seen as an unacceptable use of this space in part because it gave off a strong whiff of the domestic sphere, of the maintenance of a household. This presence of the domestic – precisely the realm that the sportsman was trying to escape – was part of what made subsistence

hunting, and the racialized others who practiced it, suspicious and undesirable. As Daniel Justin Herman and Louis Warren have observed, and as I will further show in Chapter 4, the sportsman's hunting arena was seen as thoroughly masculine.²⁸ In relation to Leopold and the NMGPA, the "pine cone" itself is, of course, a male metaphor. Leopold was so fond of it that the NMGPA *Pine Cone* was the second bulletin he had so named, the first being the *Carson Pine Cone*, an internal Forest Service newsletter he founded, wrote, and illustrated. The masthead of the NMGPA *Pine Cone* always included a statement of purpose that reinforced the pine cone imagery: "As the cone scatters the seeds of the pine and the fir tree, so may this little paper scatter the seeds of wisdom and understanding among men."

From Contradiction to Confrontation: The Case of Stinking Lake

On rare occasions, the subtle exclusion of certain groups from the sportsman-citizen ideal turned overt. One such example came in the NMGPA's longstanding effort to change the status of Stinking Lake – a large, pristine body of water in northern New Mexico that served as a breeding ground for waterfowl – from Indian-owned to government-owned. The battle surrounding the lake shows the NMGPA in direct conflict with a native tribe, the Jicarilla Apache (though the Jicarilla's side was not represented and sources have proven elusive), and connects the conservationist organization with the larger national effort to remake native peoples into Americanized citizens.

A group of Colorado businessmen wanted to turn Stinking Lake into a private pay-to-hunt club, but Leopold and the NMGPA wanted the US Biological Survey to designate it as a national bird sanctuary off limits to hunters, claiming that, as a breeding ground, the lake supplied the entire region with birds. Stinking Lake was part of the Jicarilla Apache reservation, but that was not the position of the *Pine Cone*, nor has it

been the position of Leopold's biographer, Curt Meine. An article in the January 1918 *Pine Cone* says that land "adjacent" to the lake was on the reservation, but not the lake itself. ("GPA and Jicarilla Club"). Meine also takes this tack, saying, "The lake was on government land, adjacent to the Jicarilla Reservation" (164). But J. Stokley Ligon, in his 1927 New Mexico game survey report, says that Stinking Lake "is on an Indian Reservation" (*Wild Life* 181), and maps in Veronica Tiller's history of the Jicarilla Apache show the area of the lake well within the bounds of the reservation as it was defined in 1887, 1908, and at the time of her book's publication in 1983.

The Jicarilla's history in the region extends back at least five hundred years.²⁹ They ranged widely over what we now know as northern New Mexico, southern Colorado, southwestern Kansas and the Texas panhandle. Though they grew vegetables and herbs, the economic and cultural roots of their culture lay in hunting, particularly through the time that buffalo remained in large numbers. Even after the buffalo were largely decimated, the Jicarilla hunted mountain sheep, elk, deer, antelope, and smaller game like rabbit and beaver. As with all tribes in the region, the American annexation of northern Mexico in 1848 brought a wave of destructive changes to the Jicarilla. Through the early twentieth century, the Jicarilla's history as inhabitants of the United States is marked by several failed attempts by local and federal authorities to turn them away from nomadic hunting and gathering toward a settled agricultural lifestyle more in keeping with American ideals of individualism and private ownership. This was part of a nationwide strategy epitomized and enforced by the 1887 Dawes Act that assigned to each family an individual a parcel of land that was to be farmed, thus breaking up (or attempting to break up) communal cultures of shared subsistence.

By the time the NMGPA was attempting to redefine Stinking Lake as a game preserve, the Jicarilla were in the midst of their most trying years. In the first two decades of the twentieth century, tribal populations fell to their lowest levels in recorded history. A combination of failed attempts at agriculture due to drought and unfit lands on the one hand, and government mismanagement of tribal funds on the other, led to unprecedented levels of malnutrition and disease.

But the *Pine Cone*'s treatment of the lake paid scant attention to the Jicarilla, who at the very least had a legitimate interest in its fate. The NMGPA considered its primary foe the "Jicarilla Club," the group of Colorado businessmen who wanted to turn the lake into their private hunting grounds. The NMGPA's proposal and its version of the Stinking Lake situation were most thoroughly laid out in a January 1918 article, "GPA and Jicarilla Club Go to The Mat." The first part of the article describes the lake itself and the NMGPA's petitioning of the Biological Survey to turn it into a national bird refuge. Because the Biological Survey was the NMGPA's ally on many important issues, the *Pine Cone* treaded lightly around their delay in answering the NMGPA's requests. The advocates for the private hunting club were made out to be selfish outsiders who wished to monopolize an important state resource, but *Pine Cone* takes the time to sketch their viewpoint, however villainously, even naming and including the voice of their representative. On an interior page (the first half of the article is the issue's lead story), after the concerns of the NMGPA, the private club advocates, and the "Chama Sportsmen" have been addressed, the article's last paragraph deals with "The Jicarilla Indians." It begins, "This Association has at all times recognized that while the ducks belong to the public, the land adjacent to Stinking Lake is a part of the Jicarilla Indian

Reservation, and that the Indians are entitled to full consideration” (“GPA and Jicarilla Club” 3). Yet earlier articles on the subject of Stinking Lake make no mention of the Jicarilla Apache.

Just as the federal government’s attempts to turn the Jicarilla into an agricultural people was part of a larger national pattern of assimilation, so was the NMGPA’s attempt to cordon off Stinking Lake a single example in a national program of barring Indians from lands rich in natural resources under the guise of the public good. Mark David Spence chronicles the history of national park lands being seized from Native peoples, showing how these places were always characterized by Anglo settlers as unspoiled by human habitation when in fact they had been lived in or managed by Indians for hundreds of years. Spence argues that in the mid to late nineteenth century, when Yellowstone and Yosemite were being carved out as National Parks, the American cultural idea of the Indian changed from noble steward of all things natural to greedy squatter taking up the nation’s most beautiful lands (29-30).

There is evidence for Spence’s argument in the combination of the *Pine Cone’s* Stinking Lake arguments and Leopold’s other New Mexico writings. In his unpublished manuscript “Southwestern Game Fields,” particularly its second chapter, “The Virgin Southwest and What the White Man Has Done to It,” Indians are explicitly credited with what we would now call sustainable land-management practices, only tripping into unsustainability when “Coronado and those who came after him brought sheep and goats and cattle to the Indians,” resulting in “the subsequent over-grazing of the whole watershed” and deeply destructive erosion.³⁰ Leopold minutely investigates the characteristics of the Southwestern landscape and the historical forces that have caused

them, but he displays a startling lack of curiosity about the agricultural methods that maintained the balanced, “virgin” landscape that functions as the book’s ideal, or the human inhabitants who practiced them. The Indians in Leopold’s bygone Southwest were not so much stewards of the land as features of it, like a deeply running, unsilted Rio Grande, that had simply disappeared. The Jicarilla, it seems, were a different people altogether from Leopold’s idealized Indians, and so leaving Stinking Lake in their charge was unthinkable.

Leopold’s involvement with the NMGPA, including his writing and editing of the *Pine Cone*, was his first foray into local politics, and he wielded considerable influence. In the campaign that garnered Theodore Roosevelt’s attention, Leopold played a leading role in securing the appointment of a genuinely conservationist game warden by New Mexico’s governor in a time when that job was seen as a soft political appointment (Leopold “Putting the AM in Game Warden”). He also succeeded in convincing the Forest Service and the state that it was in their interests to manage national forests for the propagation of game animals, of growing New Mexico’s recreational hunting public, and, in his later work with the Albuquerque Chamber of Commerce, in touting the state as a sportsman’s tourist destination. But the long-term effects of these changes were not positive. Noting Leopold’s additional success in getting a portion of the Gila National Forest declared the nation’s first wilderness area, Louis Warren says, “Ecological shifts on the Gila and across the entire Southwest brought declines in game, aggravating inherent political tensions in the alliance that built the state commons and sundering the federal-state consensus over deer management in the region” (113). The cause of the NMGPA, then, was more successful rhetorically than ecologically.

I have argued that a large measure of that rhetorical success was related to Leopold's persuasive sportsman-citizen ethos. While it is impossible to precisely quantify the influence of a particular rhetorical strategy, it is possible to trace its historical origins, to theorize the mechanisms by which it persuades, and to examine its real-world effects, as this chapter has done. The sportsman-citizen ethos took hold in part because there was a tradition for it, one connected with individual characteristics deemed desirable: rugged independence, finely honed skill in nature, and an ethical restraint and appreciation of natural beauty identified with the upper classes. It was also distanced from characteristics deemed undesirable: greed, desperation, and a lack of self-control and a mercenary attitude identified with the lower classes. In this sense sportsman citizenship was not only a way of defining public-spirited behaviors, but also a way of drawing borders around who could and who could not be a citizen. Sportsman citizenship was a kind of membership, and dealing as it did with encoding proper and improper interactions with the natural world, the stakes of membership were extremely high, particularly for those outside the borders of citizenship who depended on wild animals for their livelihood and cultural meaning.

That such exclusion rests upon a foundation of unstable contradictions makes it all the more frustrating to consider. As a "technology of citizenship," the sportsman-citizen ethos seemed to be an identity freely chosen but was in fact a means to social control, a kind of backdoor form of law-enforcement. As Cruikshank would note, no matter how well intentioned, such tactics are a form of power politics. Further, the sportsman-citizen ethos itself is made of the very people it aimed to exclude from membership. It was first deployed in the United States as a celebration of aristocratic

European values, then morphed into a whitewashed embodiment of Indian competence in nature. Paradoxically, the whitewashed version could not, by definition, include the Indian, not only because the Indian was not white, but because the white frontiersman defined himself precisely by conquering Indians and all they stood for. The frontiersman, who hunted for food or for monetary gain, served as the basis of a new citizenship that excluded subsistence and market hunters.

And yet the reforms Leopold sought in deploying the sportsman-citizen ethos were in many ways necessary. His writings responded to a very real biodiversity crisis that has rolled steadily on from his lifetime to our own.³¹ Soon after the period of the NMGPA's most sustained activity, Leopold would change his approach to conservation activism and repudiate some of his earlier beliefs. After leaving New Mexico in 1924, he would no longer advocate for the eradication of predatory animals like wolves and bobcat. More fundamentally, he came to see advocacy that focused on individual hunting practices as a myopic response to broadly ecological problems.

The individualistic approach that focused on hunters was known in the 1920s as the "Hornaday school" of conservation, for William Temple Hornaday, quoted above. Leopold made an almost ceremonial break with Hornaday in the next major phase of his career, covered in the next chapter. In the late '20s, Leopold signed a contract with an industry group, the Sporting Arms and Ammunition Manufacturer's Institute, to perform a national game survey, the first of its kind. Before beginning the survey he visited Hornaday in Stamford, Connecticut, where the elderly man was confined to his bed. Leopold anticipated that the survey report, concerned as it was with agriculture and

scientific research on wildlife, would go against Hornaday's platform of hunting regulation. In a preliminary report to SAAMI on the Stamford visit, he wrote,

I told [Hornaday] I was not asking for his advance approval of the findings of the Survey; I was asking that in the event anything came up which met with his disapproval that he give me a chance to come and see him before making his disapproval public.

I do not think the Survey [...] need have any concern about Dr. Hornaday. I think his organization can later contribute valuable help in getting the support and approval of the school of thought of which he is the leader. ("Game Survey Report No. 1")

As we will see in Chapter 4, Leopold would later return to the politics of hunting laws, and though he would not deploy it, the exclusionary ethos of the sportsman citizen was, thirty years after the *Pine Cone*, alive and well.

Chapter 3

Leopold's "new view point": The Rhetorical Ecology of the North Central States Game Survey Report

In 1931, Aldo Leopold published his first book, the *Report on a Game Survey of the North Central States*, the product of three years of intensive research and writing. Sponsored by the Sporting Arms and Ammunition Manufacturers' Institute, an industry group, Leopold travelled throughout the eight states of the northern middle west³² collecting data and reporting on land types, animal populations, weather patterns, conservation efforts, and state conservation infrastructure over an area comprising 458,800 square miles (Hatton) – a huge and unprecedented task. He had the book bound as a handsome volume and sold at cost, and sent free, signed, often unsolicited copies to the many hunters and conservation professionals whom he had interviewed as part of his wide-ranging research process. Upon receipt of the book, a member of the Wisconsin Conservation Commission wrote Leopold to express his gratitude: "I am at a loss to know why you favored me with this generous gift, and even more at a loss to know how I can thank you for it. It is a beautiful book, and I shall treasure it highly" (Kipp). The Director of Zoology at the University of Michigan said, "To me it marks an important step as the first effort to point out a new methodology, a new view point and fresh attack on accumulated data" (Gauge). The research that went into the report led to the publication of Leopold's second book, *Game Management*, in 1933, and ultimately to his appointment as the nation's first professor of wildlife management, at the University of Wisconsin-Madison, in the same year.³³

The publication of Leopold's *North Central States* report was, as Flannery O'Connor said of good story endings, both surprising and inevitable. It was surprising because nothing quite so ambitious as a regional, multi-state game survey had ever been undertaken in the field of wildlife conservation. It was inevitable, however, because the history of the progressive conservation movement was one of systematic knowledge-seeking and control, and there was at that time not even an overriding theory about, much less a central mechanism for, managing wildlife. In his history of the Progressive conservation movement, Samuel Hays, mirroring somewhat the optimistic language of the era, says,

The broader significance of the conservation movement stemmed from the role it played in the transformation of a decentralized, nontechnical, loosely organized society, where waste and inefficiency ran rampant, into a highly organized, technical, and centrally planned and directed social organization which could meet a complex world with efficiency and purpose. (265)

As we saw in the previous chapter, nationwide concern for dwindling wildlife had emerged in the nineteenth century, but no federal infrastructure existed to turn this concern into a centralized response. Whereas forestry was well established by the first decade of the twentieth century, with a robust academic discipline and a federal agency devoted to practicing it, even into the early 1930s there was no unified academic field studying wildlife and no federal agency tasked with overseeing and protecting it.³⁴

Leopold emerged in the late 1920s and early '30s as the face of institutionalized wildlife management in the United States. Beginning in 1918, when he was still writing

and editing the *Pine Cone*, he published articles in professional journals and popular conservationist magazines. In addition to his work with the New Mexico Game Protective Association, he joined or helped found dozens of conservation organizations and maintained a national web of correspondence with their leaders. Where the *Pine Cone* foregrounded the ethos of the pioneer-sportsman, these letters and articles established Leopold as a deep thinker with a keen ecological perspective, and as a savvy and ambitious leader with an ability to get things done. When SAAMI approached him about the game survey in 1928, this latter ethos was nationally known, and the *North Central States* report, the *Game Management* textbook, and his appointment at the University of Wisconsin that grew out of the survey catapulted him to the head of a new field.

Landing just where he did, however, was a rhetorically complex endeavor. When Leopold began his regional game survey, the field of wildlife management did not yet exist, so advancing its cause meant uniting the diverse publics with a stake in wildlife's continued existence. His audiences for the *North Central States* report included groups with sometimes divergent interests: sport hunters, gun and ammunition manufacturers, state and federal conservation professionals, wildlife researchers, and rural landowners, particularly farmers. As Leopold said in his original proposal to SAAMI, the national movement required to safeguard wildlife was predicated on the idea that these groups' "identity of interest can be made the basis of effective joint action" ("Prospectus" 1). With the *North Central States* report, he began the work of establishing their common interests.

This chapter argues that Leopold used the *North Central States* report to create an ethos that embodied this “identity of interest.” By manipulating the flexible genre of the game survey report, Leopold drew upon the values and rhetorical techniques of his diverse audiences to represent himself as a kind of convergence point for their common stakes in conserving wildlife. Where the previous chapter examined the historical sources of Leopold’s ethos, this chapter examines its sources in genres of writing. Employing the ecological genre theories of Anis Bawarshi, Clay Spinuzzi, and Amy Devitt, it argues that Leopold drew on ways of knowing the natural world common to the many publics he sought to unite, literally weaving his ethos out of their language and values.

Revealing the generic sources of Leopold’s ethos extends rhetorical scholarship on both ethos and genre, and holds practical lessons for non-academic practitioners of environmental communication as well. It builds on the work of H. Lewis Ulman and Scott Slovic, discussed in Chapter 1, by showing how Leopold’s use of the “model citizen” ethos was not limited to his popular or literary writings but extended into his technical work as well. Further, by closely examining the cultural and disciplinary influences on Leopold’s ethos in the *North Central States* report, this chapter provides a concrete example of the way ethos is constructed not only by a rhetor, but by the discourse communities with whom a rhetor seeks to identify.

Reaching beyond the academic concerns of rhetoricians to the modern concerns of environmental activists, Leopold’s *North Central States* report is a discourse that speaks simultaneously to a variety of ideologically separated publics for the purpose of identifying their common interests and mobilizing them toward solving a pressing ecological problem – something we now lack but urgently need. The conditions in which

Leopold worked were not the same as ours, the responses enacted on behalf of American wildlife were incomplete and not the result of Leopold's work alone, and it is impossible to isolate his agency in the many changes that occurred in wildlife management in the 1930s. But his meteoric rise in stature, his ubiquity on the national conservation scene, and his ability to work successfully with all of the constituencies to which he spoke in the *North Central States* report indicate that he achieved his "identity of interest" goal, one that remains elusive in our own time.

The primary method of genre analysis in this chapter is drawn from Amy Devitt's *Writing Genres*, in which she argues that genres are a "nexus" of "situation," "culture," and "other genres." Leopold's *North Central States* report, then, will be explored in separate sections under the rubrics of these three terms. Leopold's *situational* influences relate primarily to the various constituencies he sought to unite in his report, and help to account for the ways he innovated the game survey report genre to effect widespread change. His *cultural* influences, as I define them, relate to the positivist empirical orientation of mid-twentieth century conservation and account for the ways Leopold adhered to a status quo even as he innovated. To discover Leopold's influences from *other genres*, I review two of the leading scientific journals publishing on matters of wildlife during the time of his game survey, *Ecology* and *The Auk*, finding that Leopold strikes a middle path between their very different styles.

Though Devitt does not, I characterize this method as "ecological genre analysis." Before proceeding to Leopold's *North Central States* report, it is necessary to further define what it means to analyze genres "ecologically," and to review recent scholarship

that questions the utility and appropriateness of rhetorical analysis based on metaphors from the natural sciences.

Ecology and Economy in Genre Theory: Towards a (Re)United Household

Ecological and evolutionary metaphors are often used to frame analyses of genres and genre change, but they have recently garnered criticism. This section shows the value of metaphors drawn from the natural sciences and applied to textual analysis, and answers critiques leveled against such methods by offering an ecocritical perspective on ecological metaphor, something neither adherents nor critics of these metaphors have yet done. Though this section might feel like a somewhat lengthy digression from my overall theme of ethos, the analysis here ultimately aims to explain how ecology and genre theory can combine to offer an enriched understanding of how an ethos is formed.

Common Roots: Genre as Social Action

Applying an ecological understanding of genre, as in the work of Anis Bawarshi and Clay Spinuzzi, helps to reveal the symbiotic social forces that influence writers in a variety of rhetorical situations. Using evolutionary theory to better understand the way genres change over time, like Charles Bazerman and Alex G. Gross, Joseph E. Harmon, and Michael Reidy have done with the scientific article, shows how genres and disciplinary communities shape each other in a complex interplay of influence. But some genre scholars, such as Risa Applegarth, Carol Berkenkotter, and Dylan Dryer, argue that when we think of genres in terms of natural phenomena we are less likely to examine their constitutive role in a community of writers, and less likely to confront the ways in which firmly entrenched genres can reproduce ideology. Applegarth claims that naturalistic metaphors make discourse seem “natural” rather than as designed human

creations. She says, “Examining genre change as *ecological change* [...] can have the inadvertent effect of naturalizing the social and communicative processes that genre scholars investigate” (“Rhetorical Scarcity” 454). Applegarth develops a frame from the field of economics – “rhetorical scarcity” – that, rooted as it is in the social sciences, she argues answers the problems of naturalistic genre theory. (I turn to “rhetorical scarcity” as a method of analysis in Chapter 4.)

Even as their methods use different frames, both sets of scholars rely on a common understanding of genre. Scholars of rhetoric, like literary scholars, have thought of genre at least partly as a cluster of formal features that remain more or less consistent over time, like the long fictional narrative that comprises the novel, or the IMRaD structure that defines the research report. But since 1984, with the appearance of Carolyn R. Miller’s foundational article, “Genre as Social Action,” rhetorical genre theory has become much more interested in the social influences on and of genres, and much less concerned with their formal features. Miller’s main argument, now largely accepted and widely extended, is that genres should not be thought of in terms of form, but instead with reference to the linguistic and extralinguistic actions they respond to and seek to accomplish. “Genre, in this way,” Miller says, “becomes more than a formal entity; it becomes pragmatic, fully rhetorical, a point of connection between intention and effect, an aspect of social action” (153). As recognizable, repeating forms, genres are embedded in our social lives as part of circumstances we recognize as recurring. Obituaries, for example, form an important part of the social response to death. But circumstances don’t recur identically. As Miller puts it, “‘objective situations are unique’ – they cannot recur” (156), so genres must be flexible rather than rigid; they must allow for innovation.

Ten years later, in 1994, Miller extended her inquiry to the role genre plays in the interaction between cultural structures, like ideologies and institutions, and the actions of individuals (“Rhetorical Community”). Even more than in her previous work, here Miller is after a central theoretical question that preoccupies fields in the social sciences as well as language studies: to what extent does an individual subject choose her own actions, and to what extent are they defined by socio-cultural structures beyond her control? Genre bears upon this question because it is “a specific, and important, *constituent* of society, a major aspect of its communicative structure, one of the structures of power that institutions wield” (71). But because genre is flexible rather than rigid, it contains the possibility of disruption of the structures that it reproduces. These “structures” exist at the highly abstract level of culture, but also at the more concrete level of communities, such as that of a workplace or civic organization. In all instances, Miller argues, genred communication constitutes human groups; it reproduces and alters their existence through time.

Now understood as a manifestation of social life, and as a kind of meeting point between individual agency and structural forces at all levels, genre is analyzed in a wide variety of contexts to help explain the dual power of language to maintain a status quo and create change. Charles Bazerman’s large body of work examines this and other genre-related phenomena. In *Shaping Written Knowledge*, he looks at the evolution of the experimental article in the sciences, arguing that, from the writings of Isaac Newton to the mid-twentieth century, the genre has developed according to the social constraints of scientific fields, and has in turn shaped those constraints. For example, the earliest volumes of the *Philosophic Transactions of the Royal Society of London*, “the first

scientific journal in English” (63), include articles that are little more than “cookbook recipes for creating marvelous effects” (66). Later experiments and the articles that described them became “means of adjudicating between two or more proposed views” (66), introducing a kind of professional competition that eventually made it necessary for authors to establish the credibility of their investigations, resulting in robust “methods” sections, to interpret the meaning or implications of their results in detailed discussions, and to argue for their significance. In the twentieth century these moves became exponentially more sophisticated. They now sit on an edifice of created knowledge that must be referred to in a system of citations, with the entire process of investigation and publication holding enormously high stakes for professional researchers. Through this and other investigations (*Genre in a Changing World*, “Genre and Identity,” “The Life of Genre”), Bazerman shows that in conforming to the ways of thinking built into genres, we lose individual agency as we gain the ability to respond to complex problems in focused ways.

Nature and Culture: Natural-Science Metaphors in Genre Analysis

As rhetorical genre theorists began to understand the roles genres play within complex social structures of communication over time, the use of ecological and evolutionary metaphors became common. In a study that builds upon Bazerman’s inquiry into the scientific article, Gross, Harmon, and Reidy apply ideas of Darwinian evolution to track changes in the scientific experimental article from the seventeenth to the twentieth centuries in English, French, and German. Coding for specific structural, stylistic, and rhetorical features, Gross et. al. trace genre developments that have led to simpler sentences with more complex noun phrases, a heavy focus on objects (rather than actions) revealed in the use of passive over active voice, and a movement away from simile,

metaphor, and narrative. They are careful to note that their reliance on evolutionary metaphors does not imply any kind of progress, but that the changes they observed “are a consequence of the selective survival of practices that were, persistently, better adapted to the changing environments of the various scientific disciplines over time” (212). In this way, the movements we see within genres are, like living species, not aimed at some ideal future form, but are responses to changing conditions.

Just as evolutionary ideas have been useful for explaining genre change over time, ecological metaphors have helped genre theorists explain the complex relationships between forms of communication and the social, professional, and personal contexts in which they are embedded. Focusing on the connections between the ways ecosystems support living organisms and how genres allow for certain ways of thinking, Anis Bawarshi says, “Just as natural ecosystems sustain certain forms of life, so genres maintain rhetorical conditions that sustain certain forms of life – ways of acting, and relating in the world” (9). Taking the metaphor farther, Bawarshi notes how genres and writers are mutually sustaining: “Just as ecosystems maintain a symbiotic relationship between organisms and their habitats, with habitats being sustained by the very organisms that they sustain, so too genres are sustained by the very writers that they sustain” (9). Clay Spinuzzi and Mark Zachry use ecological metaphors in an attempt to improve technical workflows by thinking through the ways in which people use genres, and genres, with their attendant assumptions and ideologies, use people. They use the term “*genre ecologies*” as a kind of shorthand for the fact that “human interactions with complex technologies are inevitably mediated by dynamic and unpredictable clusters of communication artifacts and activities” (170-71). In a similar vein, Amy Devitt argues

that “people construct genre through situation and situation through genre; their relationship is reciprocal and dynamic” (21). Though Devitt does not explicitly employ ecological metaphors, she supplies an elegant heuristic for genre analysis, which I will use in the next section of this chapter, that accounts for the ecological relationships described by Bawarshi and Spinuzzi and Zachry.

Reasserting Social Action, Questioning Natural Metaphors

But some genre theorists are highly skeptical of analytical frames drawn from the natural sciences, suggesting they undermine the very foundation of social genre analysis pioneered by Miller. Risa Applegarth asserts that naturalistic metaphors, by casting genre change in terms too easily separated from human agency, make linguistic intervention in social structures seem less useful or even impossible:

[R]epresenting genre change in a vocabulary borrowed from evolutionary theory can deflect attention away from the concerns that many scholars aim to examine through genre – concerns with the constitutive or epistemic functions of genres within the communities that use them [...] or concerns with the extent to which individual writers can revise the collective uses and meanings that inhere in the genres they take up. (454)

Carol Berkenkotter also worries that naturalistic frames for genre analysis belie socio-cultural causes of disciplinary change. In “Genre Evolution? The Case for a Diachronic Perspective,” Berkenkotter argues for a “grounded-theoretical approach” (188) to genre change, one based on Thomas Kuhn’s notion of paradigm shifts. A focus on paradigms forces closer attention to the discipline being analyzed and the complex social factors, both internal and external, that shape it. Berkenkotter does note that her Kuhnian model is particularly well adapted to her specific corpus – psychiatric case

studies – but she is invested in “mak[ing] a strong case for a Kuhnian model, rather than the more complex evolutionary model” (189).

More pointedly, genre theorist Dylan Dryer says that evolutionary metaphors “constrain our understanding of – and thus our ability to intervene effectively in – the injustices that some genre systems reflect and produce” (504). Dryer is concerned with what he calls “the materiality of uptake” (504), a phrase that refers to the affordances and limitations offered by any genre and the ways in which both are implicated in social control. When we “take up” genres to accomplish certain ends, he observes, “readers and writers are ‘taken up’ into social relations” encoded into those genres (504). In this materiality lies the “injustices” that a naturalistic perspective might hide.

Nature and Culture Again: Common Aims of Genre Theorists

I believe these criticisms are all valid, but I want to push back on them just enough to show that ecological understandings of genre and proposed alternatives, especially Applegarth’s, are both useful, indeed complementary, in genre analysis. This task is made easier by the fact that metaphors of ecology are often brought to bear in genre theory to address the very concerns that preoccupy Applegarth, Berkenkotter, and Dryer. Genre ecology is almost always marshaled in service of the argument that genres are sites of structural control, that they function in part to hold ideologies in place and that this is precisely why we must analyze them. Employing an ecological frame, Spinuzzi and Zachry say that scrutinizing “clusters of communication” in a given moment reveals an interplay of purposes, some of which are brought to a situation by the creative mind of a person, some of which come with the genre of writing or speech associated with that situation (not to say, of course, that it is a simple matter to separate them or say which is coming from where). For Bawarshi, much of the value of ecological genre analysis

inheres in the mutually constitutive role of genre honed by Dryer. Bawarshi argues that genres, “far from being innocent or arbitrary conventions, are at work in rhetorically shaping and enabling not only social practices and subjectivities, but also the desires that elicit such practices and subjectivities” (82). A genre understood in this way “is both a habit and a habitat” (84); it is an action we return to again and again to accomplish a certain task or set of tasks, but it is also an environment that shapes not only what we can do, but what we *want* to do or think we *need* to do. And because genres are “habits,” and therefore repeated, their constraints on desire and definition necessarily come to seem natural. In these ways, Spinuzzi and Zachry and Bawarshi rely on ecological metaphors to examine genre as both a tool that grants agency to writers and a template that holds their options within the bounds of accepted cultural practices.

In the developing conversation about genre and naturalistic metaphor, what we see is a set of analytical tools borrowed from one discipline and usefully employed in another, alongside a worthwhile criticism of those tools and their use. Ecological genre studies provide a method for examining the mutually constitutive contexts in which communications exist. But critiques of these methods help us to see the discomfiture between the way genre analysis seeks to reveal cultural forces, on the one hand, and, on the other, eco-metaphors that invest genres with a natural sheen. What is lacking in both is a focused exploration of the ecological metaphors themselves, and it is in such an exploration, I will argue, that we can find the precise limitations of and meeting points between genre frames based in the sciences and their critiques.

Ecology as Metaphor: An Ecocritical Perspective

Exploring the limits of ecological metaphors requires us to look at ecology itself. The ecocritic Dana Phillips, who is deeply skeptical of ecology as a “point of view”

appropriated by non-scientists, provides a brief history of the field that is particularly useful to those of us in the humanities who find ourselves attracted to its ideas. Phillips' point of departure is that scholars of literature, history, or of any humanistic field seduced by ecological metaphors have been "overly credulous" about exactly what ecology can offer (42). Before relying on such metaphors, Phillips wants us to better understand ecology on its own terms.

In Phillips' telling, non-ecologists using ecological metaphors such as "balance, harmony, unity, and [natural] economy" are often far more convinced of their power to explain the natural world than actual ecologists tend to be (42). One reason for this is that these and other terms associated with the science of ecology are themselves based on metaphor. Humanist scholars, particularly in literature and rhetoric, might counter this argument by saying that we have known at least since Nietzsche that *all* language is metaphorical, referring not to things directly but to ideas of things constructed in language. But there is a qualitative difference between a science like biology, whose root terms refer to concretely observable objects and processes (cell, mitosis), and ecology, whose root terms often do not (niche, ecosystem, web of life). The wholly metaphorical nature of these terms can be followed to the origins of the field in the late nineteenth and early twentieth centuries, and tracing them helps to show why criticisms of naturalistic metaphors in genre analysis are not as informed as they could be.

Like others who have chronicled the history of ecology for humanists,³⁵ Phillips lays his foundation with the turn-of-the-century work of Frederic Clements, originator of the *organismal* and *climax* theories of plant communities.³⁶ These theories assert that interdependent groups of plants, in a forest, say, or a lake, function together as a single

organism toward a climax state, so that a hardwood forest that is clear-cut will, if left undisturbed, work its way back through a series of steps to again become a hardwood forest – the climax. Phillips says that “Clements didn’t treat the organismal concept as an analogy, though that is what it was” (54).

Clements’s ideas proved highly influential, leading to the coining of the term “ecosystem” by Arthur Tansley in 1935 (Phillips 61; Callicott 92), but it turned out that there really was no way to define Clements’s superorganisms or Tansley’s ecosystems with the kind of meaningful boundaries that scientists require for analysis. Where exactly did they begin and end? Could anything really be said to exist *outside* of such an organism? Dissenting from the ideas of Clements and Tansley was ecologist H. A. Gleason, who put forth the notion in 1926 (though it wouldn’t be accepted until much later) that the side-by-side existence of plants was more or less coincidental. “Like strangers in a bar,” Phillips explains, “they were there at the same [time], but they weren’t really there *together*” (68).

Along with *organism* and *ecosystem*, Phillips shows the metaphorical quality of other concepts deployed by ecologists and taken up by non-scientists in ecology’s name: *niche* (70), *environment* (74), and *web of life* (75), all of which contain a kernel of scientific truth but lack the precision to be scientifically useful. Phillips quotes ecologist R. H. Peters, who says that such analogies “are too undependable to serve as theories” (75). Phillips’ point is not that ecology lacks credibility; it is that when humanists rely uncritically on ecological metaphors, assuming they lend our arguments a scientific justification for holism, we occupy a state in which “our confidence in ecology has been misplaced” (42).

In what sense, then, *is* ecology useful, as science and as metaphor? Despite the above argument, Phillips does not believe that ecology's metaphorical roots prove that it has nothing to teach us, but that any use of it must acknowledge these roots for what they are. "Ecology," he says, "can then be seen as an ongoing inquiry into the practical value of the analogies proposed by theorists like [Clements and Tansley]" (58). In this sense, holistic terms like *balance* and *ecosystem* don't offer Truths that have been proven and can now be applied; they offer truths that were metaphorical all along and whose value expresses itself in use.

This has consequences for both scientists and humanists working with ecological metaphors. Phillips, citing a small army of skeptical but dedicated ecologists, says that the science's greatest successes occur when its potentially grand ambitions are focused on clearly bounded projects: "The things that ecology does well tend to involve areas of applied science like forest, wildlife, and fisheries management [...]. Ecology's success stories have grown out of research projects of relatively modest scope" (78). For humanists, the major consequence of this shift in perspective from scientific fact to multivalent metaphor must be a more thoughtful and skeptical use of these metaphors. When, for instance, we designate a group of texts as existing within an "ecology," we should know if not acknowledge that we are not borrowing a concept that has been shown to be true in nature and, by virtue of that truth, brings with it a strengthening dose of explanatory power. Rather, we are repurposing a metaphor that has had some limited use-value in particular cases, use-value that does not transfer between contexts and so lends no credibility *in itself* to our arguments. The moment that ecological metaphors have value for explaining humanistic objects of study like structures of language or

histories of ideas – the moment we might think of as the “payoff” – happens not at the point when these metaphors are introduced, but only after their application has proven them useful. An ecosystem is not a proven scientific fact or even an accepted theory. It is a metaphorical tool whose usefulness must be proven with each new use.

This pragmatic view of ecological metaphor introduces an interesting twist to arguments against the presence of naturalism in rhetorical theories of genre. Applegarth and Dryer worry that looking at genres through the lenses of natural phenomena risks obviating their status as social structures, and that, because social structures perpetuate unequal power relations, such an error is serious and consequential. But if *ecosystems* started as and remain metaphorical constructs, they need not bring the connotations of rigidity, of teleology and inevitability, that rightfully concern some rhetoricians. It turns out that Applegarth’s, Dryer’s, and Phillips’ worries about humanist cooptation of scientific, or naturalistic, language is quite similar, but Phillips, by virtue of being an ecocritic committed to exploring relationships between nature and culture as a matter of course, follows these worries much farther. What he finds is not an incompatibility between studies of the natural world and studies of language, but instead an uneasy sympathy. The solution for humanists, then, is not to discard ecological metaphors, but to treat them as metaphors from root to leaf.

Proceeding in this way aligns with George Lakoff and Mark Johnson’s theories of metaphor. “Metaphor,” they say, “is principally a way of conceiving of one thing in terms of another” for the purpose of “understanding” (Lakoff and Johnson 36). Metaphor has deep explanatory power, but because it essentially combines two unlike things, with one subsumed into the other, we must remain aware of what these combinations hide and

reveal. Lakoff and Johnson cite the example *argument is war* to show how metaphors can distort our views of everyday activities. Even though rational argument exists largely as an alternative to physical violence, they point out, our cultural understanding of it as a kind of combat (“he’ll wipe you out;” “he shot down all of my arguments”) means that, “even in the most ideal cases [...], rational argument is still comprehended and carried out in terms of war” (63). So while we think of interactions of language and culture in terms of ecosystems, we must remain sensitive to their status as social constructs that, unlike nature, are created by people and maintained, through action or inertia, for the purpose of perpetuating existing power structures.

The central analytical term of this dissertation – ethos – will help to keep us anchored in the realm of discourse even as we think of language in terms of an ecological system. The symbiotic, mutually enhancing entities within this system, drawing on Amy Devitt’s heuristic for genre analysis, are “situation,” “culture,” and “other genres.” The genre of the game survey report and the ethos Leopold created within it draw from and seek to influence these entities, and in doing so maintain the status quo in some ways and innovate in others. Analyzing the *Report on a Game Survey of the North Central States* in this way shows the power of a skillfully deployed rhetoric to effect change, as Leopold successfully identified his ethos with the diverse audiences whose sympathies and commitments he sought. What is more apparent, however, is rhetoric’s limitations, for in order to secure those identifications he had to uphold many more cultural assumptions than he subverted, including the economic and therefore wholly anthropocentric valuation of wildlife.

Ecology, Genre, and Ethos: A Rhetorical Analysis of the North Central States Report

By the late 1920s and early '30s, when Leopold was combining the interests of several groups into the new field of wildlife management, the American conversation about interactions between human society and non-human nature were well developed at the popular and specialized levels. Skilled communicator that he was, having written for professional managers and researchers as well as the lay public, Leopold marshaled established techniques and assumptions from the existing literature to construct an ethos that could identify with these audiences and represent the newly forming discipline that would unite field research, politics, and public relations.

This section will locate Leopold's work within the context of this literature and the wider culture to show which values and techniques he prioritized as he sought to claim public and professional influence. This approach, by focusing on the relationships between Leopold's rhetorical choices and the wider rhetorical environment in which he made them, is an example of ecological genre analysis. I use it to reveal the situational, cultural, and generic sources that Leopold called upon – whether unconsciously, semi-consciously, or with full awareness – to craft his persuasive ethos at a key moment in his professional life. What *was* conscious, as we know from his stated priority of creating an “identity of interests,” was Leopold's attempt to unite the perspectives of the many related but ultimately disconnected stakeholders in a way that balanced public- and private-sector action. In doing this, Leopold established his own ethos and the emerging field of wildlife management as the conceptual spaces where the perspectives necessary for action logically met.

One of the strengths of Leopold's ethos was its ecological point of view. When Leopold's *Report* was reviewed in the journal *Ecology* in 1931, the reviewer said that "the viewpoint of the author is ecological" (Moore 748). But what did that mean then, and what does it mean now? In the first volume of the *Bulletin of the Ecological Society of America* (1917), Victor Shelford, a University of Illinois zoologist, stated that the primary concern of ecology was the "physiological relations of organism to environment" (1), a definition that is close to that of the man who coined the term "ecology," Ernst Haeckel, nearly fifty years earlier: "the science treating of the reciprocal relations of organisms and the external world" (qtd. in Nichols 268). In the first issue of *Ecology*, Barrington Moore, a forester, associated the field more with a "point of view" than an object of study or set of methods. Moore identified ecology as part of biology's "third phase" in which natural scientists, having separated into several increasingly specialized subdisciplines, were to combine their knowledge into a broad, holistic perspective ("Scope" 3). One hundred years later, in 2014, the Ecological Society of America's webpage succinctly defines ecology as "the study of the relationships between living organisms, including humans, and their physical environment; it seeks to understand the vital connections between plants and animals and the world around them" ("What Does..."). Leopold's vision of wildlife management can be referred to as "ecological" in the scientific sense because its focus was on relationships among natural phenomena, and in the rhetorical sense because it maintained an awareness of human and institutional relationships as they related to non-human nature.

My own interest in ecological frames stems from ecology's bedrock concern with relationships, and my belief that the relationships between organisms and environments

provides a powerful analogy for analyzing relationships between ideas and forms of writing. The heuristic for an ecological analysis of Leopold's *Report* that will be most useful for this task is Amy Devitt's triad of *situation*, *culture*, and *other genres*, guiding terms that allow for a focused examination of the many contexts of influence informing and informed by Leopold's writings. Devitt does not identify her method as ecological, but it fits well within Bawarshi's, Spinuzzi's, and my own understanding of what ecological genre analysis should provide. Where Bawarshi and Spinuzzi might use "ecology" to describe the interaction of several features of a complex social situation, Devitt uses "nexus": "I propose, then," says Devitt, "that genre be seen [...] as a nexus between an individual's actions and a socially defined context. Genre is a reciprocal dynamic within which individuals' actions construct and are constructed by recurring context of situation, context of culture, and context of genres" (31). Like "ecology," "nexus" suggests a swirl of relationships not readily perceived but profoundly influential, and so demands our disciplined attention.

What does Devitt mean by "situation," "culture," and "other genres"? *Situations*, she explains, building on the genre theory of Carolyn Miller and activity theory of David Russell, are not reducible to material conditions, but are in part constructed by the people who experience them. Because genres are defined enough to bring the residue of past situations with them, they aid in this construction; but because they are created anew with each instantiation, no two situations are exactly alike. Situation, then, is a recurring action but not a repeating one within the larger context of *culture*. In terms of genre, *culture* can be seen as the vast but limited array of "learned behaviors, values, beliefs, and templates"

(Devitt 25) that individual genres select from and reflect. Finally, the presence of *other genres* in Devitt's nexus

acknowledges that the existence of genres influences people's uses of genres, that writers and speakers do not create genres in a generic void, that people's knowledge and experience of genres in the past shape their experience with any particular discourse and any particular genre at any particular time. (28)

The broadly useful metaphor of ecology's "point of view" takes the primary importance of relationships and mutual effects as a given, and Devitt's nexus provides a complementary heuristic that provides a focused path through these relationships.

Situation: The Exigence of the North Central States Report

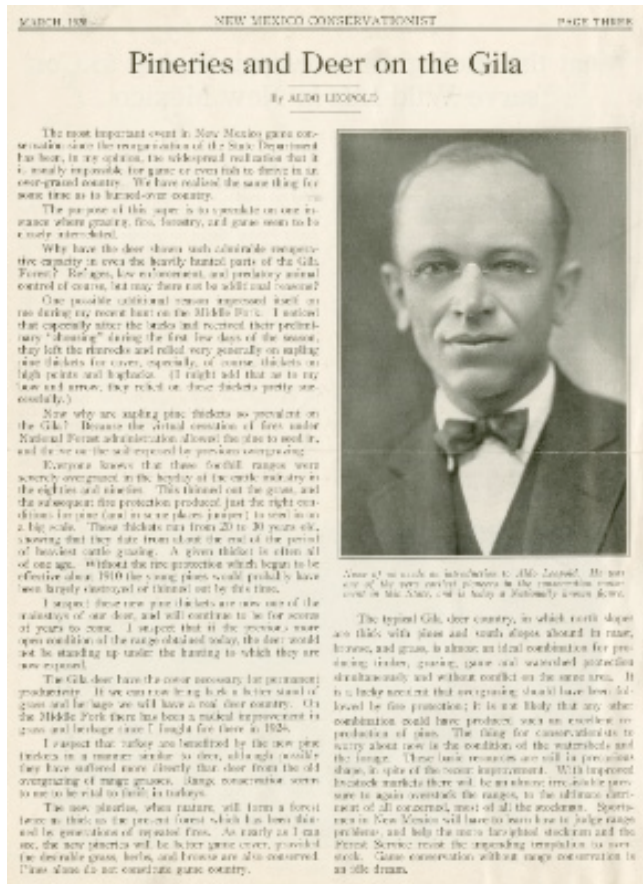
Devitt values *situation* in her genre-analysis heuristic because it serves as a way of looking at what is new and what is not new in the conditions to which a particular act of writing respond, hence revealing the way genres maintain and move the status quo within the relatively tight bounds of individual happenings – as opposed to *culture*, which casts a much wider net. Leopold's *North Central States* report responded to the same situation as other game survey reports of the time: dwindling wildlife. But Leopold's wider audience, and his overall purpose of uniting their interests, led him to innovate the genre and his ethos in ways that embodied their different methods of knowing nature.

By 1931, when the *North Central States* report was published, Leopold had been interested in wildlife for at least two decades. His interest was directed in equal measure at the animals themselves – their behavior and habitat – and at the human systems that seemed to account for their depletion or that showed promise in bringing them back. In Chapter 3 I showed how Leopold rallied New Mexico's disparate game protective

organizations around support for state and federal hunting laws, and how, like Teddy Roosevelt, he argued that hunting helped to maintain a pioneer spirit essential to American identity. Such arguments were primarily directed at hobbyists, but Leopold also wrote for conservation professionals, and in these publications he more clearly showed the connections his research and recreational experiences were leading him to make.

One such article published in 1928, the same year he began research for the *North Central States* report, shows the variety of factors under Leopold's consideration in matters of wildlife management as well as his stature in the field at the time. A third of the page on which "Pineries and Deer on the Gila," is printed, in the *New Mexico Conservationist*, is taken up by Leopold's headshot, with the caption, "None of us needs an introduction to Aldo Leopold. He was one of the very earliest pioneers in the conservation movement in the State, and is today a Nationally known figure" (see Image 2, below). The article describes the favorable conditions for deer in New Mexico's Gila wilderness. On a recent hunt there, Leopold had observed deer using healthy stands of pine to escape their human predators. The pine had grown, he says, during a cessation of grazing and the implementation of fire prevention policies over the previous three decades. While the latter were firmly in place and not under threat, "improved livestock markets" meant "an almost irresistible pressure to again overstock the ranges, to the ultimate detriment of all concerned." Leopold was making an ecological argument, in the scientific *and* rhetorical senses, that would play out in more developed forms in the *North Central States* report. In the article, deer served as a recognizable cause for a number of

interested parties to rally around. Hunters wanted a large deer herd; the state wanted hunters



to buy licenses; the Forest Service wanted support for its policies and a sympathetic state government with funds to devote to forest conservation toward the goal of profitable, sustainable logging. This was the essence of management: recognizing ecological cause and effect and the techniques for marshalling groups and institutions to bring about planned results. Leopold saw the need for such knowledge, and surely the influence that could come with it, and

Image 2: "Pineries and Deer on the Gila"

designed the *North Central States* survey accordingly.

Four years earlier, however, in 1924, Leopold's career had taken him away from wildlife. He had taken a job as second in command at the Forest Service's Forest Products Laboratory, a wood research facility in Madison, Wisconsin, in part because its head, Cap Winslow, was expected to retire (Meine 225). But Winslow did not retire and Leopold found that his job consisted more of paperwork than anything else, a situation he did not relish. In June of 1928, Leopold accepted the offer from the Sporting Arms and

Ammunition Manufacturers' Institute to lead a national survey of game conditions.

Meine puts his decision to leave the Forest Service in a personal and professional context:

“It took no small amount of courage to make such a move. Leopold, in mid-career, with a wife and five children to support, was entering a field which did not even exist” (256).³⁷

In addition to the survey, SAAMI sponsored research fellowships at four universities, all put into motion by Leopold but supervised by field experts on site and overseen by the U. S. Biological Survey.³⁸ Perhaps if he had been less of a pragmatist and more of a purist, Leopold would have turned down a group of gun and ammunition manufacturers who wanted to know about the state of shootable wildlife in the U. S., and some were indeed wary of the association. The President of the University of Minnesota, ultimately a site for a SAAMI fellowship, initially rejected Leopold's proposal on the grounds that its primary end was the sale of more ammunition (the proposal sought to propagate quail, a popular game bird, as a demonstration of what coordinated research and management could accomplish).³⁹ But Leopold saw an alignment of interests that would fulfill a great need. As Meine says of the time during which Leopold partnered with SAAMI, “There was no science of game management to speak of in the United States. Zoologists studied game and nongame wildlife, but rarely with an eye toward conservation” (259). Leopold faced questions about the *North Central States* report's industry ties with customary dispatch in its preface: “This survey is financed by the sporting arms and ammunition industry. The motive hardly requires explanation: success in game restoration means continuance of the industry; failure in game restoration means its shrinkage and ultimate liquidation” (5).

Industry support forms an important part of the situation, as Devitt defines the term, in which Leopold's *Report* existed. As will be shown in more detail below, game survey reports were a familiar genre among conservation professionals in the 1920s, but they were usually if not exclusively written by state or federal government agencies. All such reports, including Leopold's, were a response to the recurring – or, perhaps more accurately, continuous and worsening – situation of wildlife depletion. Among the factors making the situation of the *North Central States* report unique was the sponsorship of SAAMI. Leopold responded to the depletion of wildlife in a slightly different way than previous reports had: by consciously incorporating the interests of gun and ammunition manufacturers. This might help account for the persistence of the name “game management” rather than “wildlife management” until at least 1937, when the first issues of *The Journal of Wildlife Management* appeared. Leopold's foundational textbook, as mentioned above, which relied heavily on SAAMI-funded research, used “game” rather than “wildlife” in its title. While Leopold's ecological perspective certainly helped move the field toward a concern for all wild animals, it seems that his industry ties helped to keep its focus on industry interests.

Another important difference between the *North Central States* report and other game survey reports of the time is that the latter were written by and for conservation professionals, while Leopold pitched his message to many audiences, including those same professionals, and the manufacturers *and* consumers of guns and ammunition, including sport hunters and farmers. This was pioneering work and Leopold figured out his methods as he went. When he and SAMMI realized, for example, the commitment required for the originally planned nationwide survey, they scaled it back to a regional

focus. Though the final published report is organized primarily by species with separate sections devoted to game administration and the conservation movement, Leopold's research proceeded state by state, and he wrote a separate report for each.⁴⁰ None of his first three reports (Michigan, Iowa, and Minnesota) approach a hundred pages, while his last two (Wisconsin and Missouri) are each well over two hundred.

Several aspects of the *North Central States* report show evidence of being shaped by and attempting to shape the portion of the genre ecology I am referring to as *situation*. This latter point of *attempting to shape* a situation is particularly important. To simply analyze how the game survey reflects its discursive surroundings would be to neglect the way genres maintain social constructs and gather power to their authors, as Applegarth and Dryer warn against. The report's participation in a larger movement toward centralized, efficient management of non-human nature informs its purpose at the deepest levels, but Leopold's approach to centralization was also a seasoned government employee's response to its strengths and shortcomings. His report does not precisely mirror then-existing control over other parts of the natural world, like forests and fresh water, in the sense that it reflects Leopold's belief in the importance of the individual citizen taking on local problems in an overarching context of government support. The meeting point of these relationships, for Leopold, was the farm:

The survey concentrated on farm game, because the crux of the game problem is on the farm. Our legislatures decree game conservation, our sportsmen and nature-lovers resolve we shall have it, but our landowners do not practice it, nor are they yet offered any inducement or motive, other than altruism, for doing so. At the same time the public expects the free

run of their lands, and of such game as may accidentally persist thereon.

Such is our present impasse. Some more tenable relationship between the landowner, the game, and the public is obviously needed. (5)

Leopold identifies with these groups by holding them all responsible for maintaining game populations. Farmers are called out for not practicing conservation, but why should they without legislative inducement? Hunters and nature lovers have the right idea, but must understand the plight of the farmer if they expect to make any real difference.

Leopold's ethos, as he crafts it here and throughout the report, understands the needs and desires of these groups from the inside, but also has a bird's-eye view and so sees the connections each misses.

Having worked in the Forest Service for nearly twenty years, Leopold had clear ideas about what centralized management could and could not accomplish, and communicating these things became a central focus of his push for the consolidation of the new field of wildlife management. The inertia of the conservation movement had led the public to think of large-scale problem-solving as something that was legislated in state capitals and in Washington D.C., as indeed it was. Because of this, the *North Central States* report continually kept in view for its readers the many roles to be played by landowners, the individualized nature of these tasks, and their dependence on institutional support. In combination with the large geographical scale of the survey, this comparatively broad perspective helped Leopold establish an ethos capable of connecting with more constituent stakeholders than was typical of wildlife surveys of the time. These were essential moves in the founding of a field that sought to combine research, bureaucratic management, and public relations, skills Leopold had honed in New Mexico.

Leopold joined these otherwise disconnected elements of his audience while establishing his own breadth of perspective with tightly woven mini-narratives of complex ecologies that encouraged rather than excluded individual citizen actions, as opposed to the more common practice of focusing on institutions. One such story is told in the *North Central States*' chapter on bobwhite quail,⁴¹ in a subsection titled "The Osage Hedge" (64-66), that provides an example of Leopold weaving the overlapping concerns of his audiences into the all-encompassing perspective of his own ethos.

Early settlers of the midwestern prairies, Leopold explains, used osage orange hedges as fences for their crops. Unlike barbed wire, osage cost nothing to erect, and unlike fences made from timber they required little labor, only time to establish themselves and the occasional pruning. Osage fencelines also provided cover for quail and other insectivorous birds. Not only did these birds check populations of invasive insects that could harm corn and other crops, but quail, in the logic of game management, were themselves a crop (a concept discussed at length below). Farmers with thriving quail could charge hunters a modest fee for access to their land or hunt the quail themselves for sport and the occasional meal.

By the time of the game survey osage hedges had all but disappeared, taking the quail with them. "About 1910," Leopold says, "soaring land prices called attention to the fact that the spreading hedge roots reduced the yield of corn on a considerable strip of soil. Land having become scarce and high and wire having become abundant and cheap, farmers began to grub out their hedges" (65). In addition to considerations of cost and productivity, the hedges were found to host insect pests not eaten by the birds (a finding later refuted by entomologists); the wide availability of tractors made hedge removal

much easier; highway administrations insisted that hedges be ripped out to make room for wider roads, as did telephone companies who complained that the hedges made it harder to build and maintain their lines (65). Prairie settlers of the eighteenth and nineteenth centuries, having cleared the land of cover for wildlife, established islands of hedgerow to which animals like quail – a ground-nesting bird – could return.⁴² But a combination of rising land values and institutional growth again destroyed their habitat.

The immediate rhetorical point of Leopold's eco-narrative webs of wildlife, land, agricultural development, individual choices, and institutional influence was that powerful engines of change were everywhere being put into motion without an understanding of their effects. But the broader, implicit point was that the only perspective of any use in confronting these complex problems was one that recognized the interplay of seemingly disparate forces, a perspective, in short, like the one offered by Leopold and the emerging field of game management.

Leopold's research methods show that he developed this ethos with necessary attention to efficiency, but also to building credibility across the spectrum of conservationists – a varied lot. As the osage hedge narrative shows, the problems raised by the new field of game management could be traced to decisions made at nearly every level of land-use, so responsibility for their solutions would lay with individuals in many positions. This meant that Leopold's report would have to act as a call to action to all these constituencies while avoiding the very real possibility of alienating any of them.

First and foremost, Leopold needed to shore up his professional credentials, but in a way that maintained the goodwill of non-professionals with a stake in wildlife conservation. Because the primary engines of discovering conditions on the ground, as

well as mobilizing for necessary actions once problems were defined, were located on university campuses and in state capitols, he began each state survey in these places. As will be illustrated in the Wisconsin deer controversy described in Chapter 4, however, knowledge of the natural world and of who counted as an expert would have been highly contested topics. If Leopold wanted buy-in from professional and non-professional conservationists alike, he would have to handle his valuation of different ways of knowing with considerable finesse.

Leopold achieved this, again, through narratives that, like the osage hedge story, show the breadth of perspectives embodied in his ethos, but in this case as a progression from non-research-based to research-based ways of knowing the natural world. Not surprisingly, the report is peppered throughout with references to current research being carried out by university and government professionals. These references (characterized as “facts”) are often explicitly valued over beliefs (characterized as “opinions”) held by non-professionals, or held by conservation professionals before research had taken place. In a discussion of pheasant and partridge plantings,⁴³ Leopold admits that before the survey he had supposed their success or failure depended almost entirely on climate and the presence of predators. A study by a “Dr. Nichols,” however, codes success and failure of plantings into four types, to which Leopold’s own observations add two more, creating a much more supple and presumably accurate set of explanations and planting practices, and better prospects for success. Leopold could have simply introduced the coding system by citing Nichols’ and his own research, but he makes a point of describing his own movement from opinion-based ignorance to fact-based knowledge. This characterizes two types of knowing about the natural world in an unambiguous hierarchy

that shows Leopold's deference to empirical research and those individuals and institutions who practice it. But by placing himself in the position of blissful ignorance *and* epistemic accuracy he creates an ethos that embodies both and shows the possibility of moving from one to the other.

Leopold is sympathetic to non-professional ways of knowing the natural world in more explicit ways, an important rhetorical task in the founding of a field that would require broad cooperation. The variety of sources he cites in the *North Central States* report and the manner in which he uses them provide evidence that he was sensitive to this task, and also contributes to the breadth of perspective Leopold establishes here and in his other writings.

Leopold cast a wide net in his survey methods, gathering information not just from researchers and other professionals but also from hunters occupying a variety of occupations. His reliance on "sportsmen" and "old-timers," as he calls them throughout the report, seems to have been driven by a dearth of recorded data on American wildlife, a shortcoming if the survey is to be judged on scientific criteria alone. When judged on rhetorical criteria, however, particularly the ethos of the report and of the author, the strong presence of these knowledgeable amateurs lends the text a kind of populist credibility. Though Leopold has access to weather records, for example, he also uses oral accounts of abnormal weather events, allowing him to give them the colloquial names that might be more familiar to regional readers. He introduces these sources with a wink:

It is desired to summarize a matter of popular interest, namely, the weather conditions affecting game which were so extraordinary that local tradition has given them names, and handed down descriptions of them which old-

timers can repeat (doubtless with due elaboration). Since the weather records back up the descriptions, however, we need not doubt their reality.

(77)

He then describes the “‘cold Friday’” in the winter of 1874-75; the “‘big snow’ of 1881-82;” the “‘bluebird storm’ of 1894-95, well-known to all bird lovers because it caught the bluebirds after their northward migration had begun;” the “‘big sleet’ of March 1922;” and “[a]nother ‘big sleet’” in December 1924 (77-8). While these events help to explain fluctuations in wildlife population, they also serve as markers for the portions of Leopold’s study that rely on the oral testimony of non-professionals, since “[t]he old-timers will recollect, not the year of any event, but how many years before or after ‘cold Friday’ or the ‘bluebird storm’” (78). A farmer or a hunter might tell Leopold that partridge were particularly abundant, or deer scarce, two years after the “bluebird storm,” rather than recalling that the abundance or scarcity occurred in 1897.

The degree to which Leopold relied on such narrative testimony is reflected in the *North Central States* report’s Appendix, “Persons Consulted During the Game Survey” (separate from the report’s bibliography), a state-by-state list of individuals with their address or business and the “capacity” in which Leopold spoke with them (essentially, their identity relative to the survey, e.g., “sportsman,” “farmer,” “river guide,” etc.). Under the heading of Missouri, the last and largest state survey Leopold undertook, there are nearly 130 names, 68 of which are non-professional authorities on wildlife – that is, they are listed as, for example, “sportsman” under “Capacity” but also, under “Address or Connection”, as “Attorney” or “Physician,” while the rest are identified as

“Ornithologist,” “Ex-game commissioner,” “State Game & Fish commissioner,”
 “Professor of soils.”

Nearly a dozen non-professional sources are named and quoted in a single section in the body of the report to illustrate the different types of game-bird planting success and failure referred to above (109-12). The section is arranged in short anecdotes, one after the other:

Andrew Brooks, a widely known dog-trainer and sportsman of Doniphan, southeast Missouri, told me on January 10, 1930,

“In 1910 the state planted many pheasants. Six planted here disappeared at once. No nests of young were seen.”

W. J. Kirgan, a sportsman of Cincinnati, told me on November 28, 1928:

“I made three plants on my upland farm in Cleremont County (southwest Ohio). They all moved out. They have done well farther north on the river bottoms above Newton and Milford.” (109-10)

Leopold here places side-by-side excerpts from conversations that were, as he indicates, many months and miles apart. When added to the repetition of similar techniques and his varied list of “persons consulted,” a reader of the report gets the sense that Leopold’s state game surveys unfolded in a chain of informal appointments and chance meetings with a variety of people willing to share their experiences. Even if the nascent state of U. S. wildlife research made such conversations necessary, Leopold’s inclusion of these non-professional voices as authorities worth consulting functions as a way of honoring their expertise, and expanding his ethos to include that expertise.

Approached by a private organization willing to leave him free to define, within broad limits, the shape of an unprecedented game survey, Leopold seized the opportunity to build a new field and a new ethos, not from whole cloth but from the disparate but related perspectives of government conservation workers, university researchers, serious hobbyists, and landowners. From the outset he made clear the need for these groups to work together in some united fashion, and embodied that unity in his own perspective. One major divide between these groups was their professional status in relation to the natural world, with several of them employed as conservationists and researchers and others connected in less direct or fully non-professional ways while still being heavily invested personally or professionally. Aiming for unity, Leopold needed to produce a document that would speak to the interests and values of both constituencies. While ultimately deferring to the value of methodical empirical research, Leopold leaned heavily on the stories of non-professionals, including their voices more than was strictly necessary if his goal had simply been to plug gaps (though there were many) in the research literature. Joining these perspectives had other important effects as well. As in the osage hedge narrative, it demonstrated the common interests of farmers, hunters, researchers, and managers, while at the same time illustrating their lack of communication, and demonstrating the need for a field that could facilitate new networks – wildlife management – and for an encompassing ethos ready to lead such a field – Aldo Leopold's.

Ulman and Slovic, reviewed in Chapter 1, have argued that Leopold separates technical discourse, focused on description of objects, and personal discourse, focused on the creation of a model ethos, and that this is a general characteristic of the genre of

“nature writing.” But the *North Central States* report shows the interaction of both discourses. While I agree with Ulman’s and Slovic’s contentions that the essays in the first two thirds of *A Sand County Almanac* more obviously traverse the inner life of the narrator, I assert that Leopold’s ethos is just as central to the rhetorical mission of the highly technical *North Central States* report as it to the *Almanac*’s, even if it is not as continuously present.

Leopold’s ethos-centered strategy was rhetorically savvy not only because it had the potential to speak to several constituencies at once, but also because it was, at the time, “in the air.” As we saw above, the new and influential science of ecology was as much a “point of view” as it was a method of inquiry, according to Barrington Moore’s opening statement in the first issue of the journal *Ecology*. This point of view was defined by the realization that no single discipline offered a complete perspective. Because the natural world comprised dizzyingly complex cause-effect relationships between soil, water, plants, animals, and microbes, only a joint effort between zoologists, mammalogists, foresters, ornithologists, and a host of other specialists could reach a workable understanding of what *was*, what *is*, and what *could be*. Leopold offered an ecological understanding of wildlife that was similarly broad but extended even farther: to his rhetorical practice.

Culture: Maintaining the Status Quo

While Leopold’s innovative perspective brought about real change in a new academic discipline, the changes he helped to bring left much in American conservation intact. This section is concerned with examining what exactly remained the same. For Devitt, genres are discursive spaces of cultural reproduction (25-27), which means they can facilitate change as well as maintain the status quo. In this sense genres do real cultural work.

Obituaries are a way of grieving, and so even as their form may change they lend a degree of stability – or cultural continuity – to the way we grieve. Likewise, résumés, even as they change, provide a way of building a professional identity. As genres change so does what we accomplish when we use them, but each individual change cannot be said to run so deep that it changes a culture.

But *culture* is not terribly useful as a field from which to choose the values and resources contained in and changed by a genre or ethos: it is simply too large, Raymond Williams having famously called it “one of the two or three most complicated words in the English language” (87). Genres are used *in* cultures, but more specifically they are used *by* groups of people “defined by their common goals” (Devitt 39), so a more concrete way of talking about genre and culture is to talk about genre and community. However, *community* introduces its own complications. Joseph Harris (following Raymond Williams) argues that *community* is often used in “ways at once sweeping and vague,” implying “discursive utopias” where all concerned use the same codes and abide by the same rules (99). The tragedy at the center of utopian definitions of community is that it really is a potentially powerful term, “one that offers us a view of shared purpose and effort and that also makes a claim on us that is hard to resist” (Harris 99).

Harris suggests that one way through this problem is to clearly define the communities about which we are talking. To clearly define a community is to acknowledge and resist the utopian effect that strands us in “nowheres, meta-communities – tied to no particular time or place, and thus oddly free of many of the tensions, discontinuities, and conflicts” that play out among groups of communicating individuals (Harris 100). Harris was looking at the composition classroom, while the

community that concerns me is a widely dispersed group of people reading and writing about the natural world – what it is and how we should relate to it and act in it – in the early-mid-twentieth-century United States.

Ideas of community and culture are particularly relevant when analyzing ethos. As I showed in Chapter 1, modern scholars of rhetoric define ethos in part as the embodiment of a particular community's values. It is not simply the creation of a rhetor, but the joint creation of an individual and the community and wider culture. Imbuing one's language with ethos is "to manifest the virtues most valued by the culture to and for which one speaks" (Halloran 60); it is "to speak to the interests of the community" (Jarratt and Reynolds 44). The work that ethos does, then, also speaks to Devitt's concerns about change and maintenance of the status quo. When we embody the values of a community, whether in genre or ethos, we maintain what already exists.

In the last section I differentiated between professional and non-professional conservationists, but here I want to subdivide professional conservationists into two different kinds of researchers holding different assumptions and justifying their work on wildlife in very different ways. To say that each had their own culture would perhaps not be incorrect; it is more accurate to say, however, that they were both part of a scientific culture but circulated in different, sometimes overlapping communities. Within his overall purpose of uniting stakeholders in wildlife welfare who may have in some ways been at odds, Leopold's report stays squarely within the scientific culture, while borrowing assumptions from two of its otherwise separated communities.

By entering into the public conversation about wildlife – how it was being studied and managed, what professionals did and did not know, what should be done in the future

– Leopold necessarily stepped into many of its assumptions. That is, to be part of the broad collective engaging in this conversation, he had to share some of its core beliefs. After reading several volumes of wildlife-related scientific journals of the time, game survey reports, Leopold’s own papers, historical studies of the conservation movement like Hays’s (quoted above), rhetorical histories of science, and cultural histories of scientific discourse,⁴⁴ I would classify the most basic of these beliefs, held by anyone doing supported research on wildlife, as a positivistic empirical – or, perhaps, a positivistic administrative – view of nature. My own summary of this philosophy is this: *The natural world, of which wild animals are an important part, is a set of objects that people can learn to control through careful observation and experimentation. We do not yet have this degree of control, but gaining it will help us to maintain nature’s existence alongside technological development and economic growth.* Justifications for pursuing these goals, however, differed across communities of wildlife professionals. The most recognizable difference was between government bureaucrats, who tended to justify the need for research and management on economic grounds, and scientists (employed by universities or federal or state governments) who tended to see themselves as contributing to a body of knowledge that was valuable in itself, independent of economic value.

Leopold’s *North Central States* report’s ethos reflects the common and divergent values of both the bureaucratic and the scientific positions. Before showing precisely how he reflects them, we must see how they were expressed in the bureaucratic and scientific literatures.

Government reports on wildlife at the time consistently calculated and relied on the economic value of animals to stress the need for control. One such report is *Game as*

a National Resource, written in 1922 for the Department of Agriculture by T. S. Palmer of the U. S. Biological Survey, the entity then in charge of gathering information about American wildlife. The purpose of this report was to establish the value of wildlife nationally and to show what was being done to conserve it. Palmer's statistics are primarily organized by state, and state practices in all facets of research and management varied widely. He notes that Idaho's game and fish "have been estimated to be worth \$1,000,000 per annum," while "New York has estimated the value of game captured in 1918 at \$3,239,277, representing a total value of \$53,000,000" (12-13).

Valuation of wildlife in economic terms was more than a simple reporting of numbers. Perhaps to account for the discrepancy of monetary values and the methods of reporting them, Palmer quotes from state reports on "the manner in which the estimates were made" (13). Idaho officials based their estimate on the going rate for meat and pelts, a method common to other states. New York's more sophisticated tally considered the value of the meat from killed game as the dividend on the principal of the state's total game population. Palmer quotes from the New York report:

'The game and fur-bearing animals of New York State, if capitalized, are worth not less than \$53,000,000; they return an annual dividend of more than \$3,200,000; and they cost the State for their protection and increase the nominal sum of \$182,000. This cost of protection and increase is thus less than 6 per cent of the annual dividend.' (14)

Given that state and federal reports were much more likely to be read by government officials than by non-professional "sportsmen," it may seem peculiar that these values are citizen-based rather than state-based. That is, they reflect the cash value of meat and pelts

taken by individual hunters, not states' direct wildlife revenue stream, which came from hunting licenses.⁴⁵ Licenses are mentioned in the report as well, but when monetary values are attached to animals it is their value as meat to the individuals who kill them in the wild that is prioritized. It seems that the states took seriously the notion of wildlife as a "public trust" discussed in Chapter 3 – that is, as property jointly held by citizens and managed for their benefit.

The view of wildlife as property with significant monetary value grew as hunters and researchers began to realize that animal populations were dwindling. At the same time, they also began to see that wildlife, like forests, could be managed for increase. The animals' dual status as valuable and manipulable made management imperative. The first line of Palmer's report refers to wildlife as being "*produced* in every state in the Union" (1, emphasis added). Six years later, in 1928 (the year Leopold accepted SAAMI's contract and began his survey), the annual report of the USBS leaned less heavily on dollar amounts than the Palmer report but maintained its proprietary stance. Among the "chief accomplishments of the year" are listed the "[s]uccessful crossbreeding of Alaskan reindeer with native caribou [...] and the birth of fawns of materially increased weight;" "[p]rogress in research work on the food of the English sparrow through the [...] examination of thousands of stomachs collected throughout the country;" and "[e]stablishment of the rabbit experiment station in California to supplement other investigations on the production of rabbits for fur and food" (Redington 2). Within this point of view is the assumption that the goal of research is not knowledge itself, but conservation and propagation achieved through management.

J. Stokley Ligon, a colleague and friend of Leopold's and a field researcher for the USBS, in 1927 authored a report on New Mexico's wildlife for the state's Department of Game and Fish. Though he offers no precise numbers, Ligon does list the factors he believes must be considered when calculating wildlife's economic value, including

the cost of getting into and out of the game country, value of time while on such trips, money invested in hunting and fishing licenses, food and trophy value of game secured, to say nothing of the thousands of dollars annually invested by sportsmen in equipment. (33-34)

The imperative of managing such a valuable resource however, was not yet realized. "As an asset to the Southwest," says Ligon, "wild life in the future can be made equal to a stabilized livestock industry. It is one of the most valuable crops that can be produced; yet it has been and continues to be the most recklessly abused" (25). The last thirty pages of the Ligon report look mostly at the management techniques then being developed, often as the outgrowth of research, for the purpose of increasing New Mexico's wildlife population.

The status of animals as objects to be propagated by refined management techniques and the justification for such techniques on economic grounds might be seen as the logical outcome of an increasingly industrialized and scientific national culture. But in the 1920s there was scientific research being done on wildlife that was not directly associated with government bureaucracy or agriculture, and that did not appeal to economics for its justification. The most prominent of these fields was ornithology, as evidenced by one of the oldest American academic journals devoted to wildlife, *The Auk*.

Researchers publishing in *The Auk* were largely concerned with building an edifice of knowledge for its own sake, so, unlike government researchers, rarely bothered with explicit justifications for their work. In reviewing all twenty-one issues published from 1925 to 1929,⁴⁶ the years leading up to and encompassing the first parts of Leopold's survey, I found the vast majority of articles focused on observation of species themselves, several of which are comprised almost entirely of lists of birds inhabiting a particular place. While discussions of research methods were not uncommon, only two articles dealt with methods of wildlife management. One of these was devoted to managing public opinion about wildlife, recommending for ornithologists certain rhetorical techniques when discussing the value of predatory birds with hunters and farmers who might not be convinced of their intrinsic value. The author of this piece speaks directly to economic valuations of wildlife: "[The genuine naturalist] undertakes the task of establishing the fact of the economic value of any bird or mammal with a certain unhappiness, for he realizes that such arguments are needed to convince those whose love of Nature is not as intense as his own" (Sutton 191).

This quote calls attention to a major difference between research published in *The Auk* and research published in government reports:⁴⁷ the difference between basic and applied research. Killingsworth and Palmer write about the late-twentieth-century instantiation of this difference. Basic research observes the natural world directly and builds theories based on those observations. Applied research "slides away from the theoretical aim of purely scientific discourse and engages the question, *What should people do?*" (118-19). The more basic research in *The Auk* describes species and phenomena and from them draws cautious conclusions.

In a typical basic research article, “A Study of the Snowy Herons of the United States,” the author compares the sizes of snowy heron specimens from different regions of the U. S. and reflects on the taxonomic difficulty of deciding whether to classify them differently by size or by region, or to declare them all as a single species with considerable variation (Bailey). To touch on formal features that will be fleshed out more thoroughly in the next section, nearly every article situates its observations and arguments within existing literature with consistent citation standards. On the other hand, the more applied research of government reports thoroughly immerses itself in questions of how to value nature at all in the context of human systems, particularly economic, questions that basic researchers found crass if not entirely inappropriate. But both are empiricists who see the natural world as an object that can be controlled, and see systematic observation as the appropriate vehicle for control.

Leopold’s *North Central States* report is best characterized as applied research that asks the question, *What should people do?* But his approach to applied research gives considerable ground not only to the work of basic researchers, by relying on their studies, but also to their assumptions about why wildlife is valuable, and so Leopold’s ethos takes on characteristics of both kinds of researchers. Though economic justifications for management can be found throughout, Leopold does not lean on them as explicitly as the typical government report, evincing instead the implicit attitude that the presence of wildlife and knowledge about it are goods in themselves. Just as Leopold crafted the central ethos of the report to encompass the values of conservation professionals and non-professionals, as we saw in the previous section, so did he incorporate the assumptions of basic and applied researchers. In this way he infused the genre of the game survey report,

then primarily a tool of bureaucracy, with the spirit of the basic research article (a genre further explored in the next section).

In the *North Central States* report, Leopold rarely assigns dollar amounts to species but he does express his admiration for particular animals and our collective obligation to preserve them from extinction. Speaking of the prairie chicken, which had been written off as a “lost cause,” he says, “The conservation movement has no right to discard these magnificent game birds when no real effort, other than ill-enforced closed seasons, has as yet been made in their behalf” (161). Casting his gaze to more systemic matters, Leopold judged the evolution of American agriculture towards meat and away from plants as a negative development because of its effects on animals in the wild. The result of “[t]he whole trend of farming” in the U. S., which was “to convert plant crops into meat or dairy products instead of marketing them directly,” was a vast expansion of grazing. Grazing cleared brush and encouraged farmers to clear-cut woodlots, both of which made land inhospitable to wildlife (for more on the effects of overgrazing on wildlife, especially in the Southwest, see Chapter 2). Leopold did his best to make the gravity of the grazing situation clear: “Its effects on all brush-loving wild life, game and non-game, is the most important single present fact mentioned in this report. All other conservation measures are at best but stop-gaps until this fundamental deterioration of environment is in some way checked” (61). It is worth noting that Leopold mentions non-game wildlife in this weighty passage, showing that the value of animals did not necessarily derive from the fact that they could be hunted by humans. And while knowledge about wildlife was valuable because it could be put towards more informed

management, it was also a good in itself, adding to a collection of objective knowledge about the natural world.

The value of building up the collective knowledge about wildlife is often expressed in the report by the *lack* of information then available. Nowhere is this more apparent than in the report's section on "game cycles" (134-48). In the simplest terms, the game cycle referred to the observation that game species everywhere "are subject to extreme fluctuations in abundance. [...] [T]hese fluctuations take place more or less simultaneously over large areas, and [...] they have a more or less uniform period or length" (134). The problem was that no one could confidently explain why or how this happened. Leopold specified the limitations and possible contributions of his own study to the open question of cycles, and the magnitude of the stakes:

When the game survey was started in 1928, it was apparent that it could not undertake to add anything to [...] detailed scientific studies of possible causes. Such studies require highly specialized experts, working through long periods of time. It seemed probable, however, that the experts could make a better guess as to what to look for, and could better interpret the meaning of what they found, if the game survey compiled the available evidence on the general behavior of cycles with regard to species, geography, and time. [...] Until science discovers the cause and mechanism of the cycle, all efforts to manage and conserve the cyclic species must necessarily grope in darkness. (134)

The lack of solid information on cycles had profound implications for management, but Leopold felt the lack itself as a gap that needed filling regardless of further implications.

He also saw a mutually supporting relationship between highly specialized research, his broad survey, and management. Managers desperately needed researchers, but specialized researchers also needed the bird's-eye view of surveyors like Leopold to gather information from a bigger source base than they would normally consult. The last lines of the quote can be seen as further evidence of his faith, shared by applied and basic researchers, in the power of empirical science to unlock the mysteries of nature and allow for its management and conservation.⁴⁸

Though the report values wildlife for its own sake, there is no mistaking its roots in applied research and bureaucracy, for the central and revolutionary thesis of wildlife management is that animal populations can be reduced or increased through coordinated action not on the animals themselves, but on their environment, and that each aspect of environment, from planted fields to hunting grounds to national forests, is managed or inhabited by a different specialist. This essentially bureaucratic notion is best expressed in one of the report's recurring metaphors - that any given game species is a "crop."

While relating the stages of natural history of quail in the north central region, Leopold specifies that this is not merely a novel idea, but a "realization": "Finally has come the extremely recent realization that quail are a crop, the production of which can be aided by legislative enactments, but accomplished by one and only one method, namely the modification of the land to make the environment favorable" (25).

Language reinforcing the crop thesis saturates the report and locates Leopold's ethos squarely in the positivist empirical tradition described above. First is the overall goal of locating wildlife management on farms and convincing farmers to *grow* wildlife. There is the notion that animals are the *products* of land, and more specifically of certain

conditions in certain places, which is why Leopold begins each species-focused chapter on the animal's "original distribution," establishing the ideal conditions under which it flourishes. There is the introduction of non-native species or more native species, known as *planting*; generally when the word "plant" is used in the report it is to refer to this action, either as a verb (*to plant Hungarian partridge*) or as a noun or verbal noun (*recent estimates of wild turkeys include plants; a planting of ruffed grouse*). The total collection of a species in a given place is called the *stock*, and as such can be added to, subtracted from, or lost altogether (at which point might occur a *replanting*).

Returning for a moment to Lakoff and Johnson's theories of metaphor and culture will allow us to more meaningfully think through the consequences of the positivist empirical ethos that Leopold carries forward in the *North Central States* report. If metaphor defines one thing in terms of another, what does it mean to conceive of and understand wildlife in terms of plant crops? If a grouping of animals is a crop, then it exists *by* us and *for* us – it is there because of human effort for the purpose of human use. This further entails prioritizing use value over any existing intrinsic value, with the possibly counterproductive notion that if we lose the animals it is only a loss to *us*, and not to a larger ecosystem. In Lakoff and Johnson's terms, the crop metaphor "highlights" wildlife's use value, and "hides" its intrinsic, ecological value (10-13).

Continuing with this method, if wildlife is a crop, then it is property, and while proprietary interest does not necessarily mean we cannot also appreciate the ecological roles of a species, it does mean that our interest in it is, above all, monetary, at least partially hiding its status as a living creature with senses and preferences. Further, crops are valued and thought of holistically rather than as a collection of unique individuals –

soybean farmers are unlikely to think of the value of individual plants nearly as much as the value of the output of all the plants together. When applied to animals, whose capacity for suffering and having preferences is, as far as we know, greater than plants', such thinking raises enormously complex ethical questions.

There are many more assumptions that come with referring to wildlife as crops – perhaps an entire book's worth – and some of them would be objectively inaccurate, like the idea that groupings of animals are bounded like plots of property, which are themselves human-created containers.

But all of these consequences have a negative cast, and I do not want to imply that figuring animals as crops is not at all beneficial. When wildlife is a crop, its presence and our successful management of it are an indication that the land on which it exists is productive and valuable. Further, its survival depends on thoughtful human intervention, a potentially healthy realization when it is unthinking or uncaring human intervention that likely endangered the animals and made management necessary in the first place. The existence of wildlife-as-crop cannot be left to “nature,” but must be nurtured. In the best case, then, its welfare becomes our responsibility.

As with the ecology metaphor examined earlier, the wildlife-as-crop metaphor is not a simple comparison or rhetorical flourish, but a complex system of thought with the power to shape our understanding and actions. Lakoff and Johnson illustrate this by showing how applying overarching metaphors, like *quail is a crop*, means “us[ing] expressions [...] from one domain,” e.g., *plant*, *produce*, *stock*, “to talk about corresponding concepts in the metaphorically defined domain” (52), supplying a framework that is both useful and misleading. But with metaphors that are intrinsic parts

of a culture, one can never fully separate what is useful from what is misleading or damaging. Lakoff and Johnson call such deeply rooted systemic metaphors, like their “argument is war” example described above, “structural metaphors.” These are powerful concepts that allow us “to use one highly structured and clearly delineated concept to structure another” (61). When Leopold applied the crop metaphor to wildlife, he was responding to a biodiversity crisis that required action. Part of acting quickly was communicating quickly, and essential to communicating quickly is putting new and little understood concepts, like wildlife management, in terms of older and better understood practices, like farming crops.⁴⁹

But *wildlife as crop* was, in the early 1930s, not established enough to be considered a structural metaphor in Lakoff and Johnson’s terms. It was itself part of a structural metaphor, *nature is a resource*, whose usefulness and falsities were firmly embedded in the conservation culture and its constituent communities. In his introduction to *Conservation in the Progressive Era*, David Stradling notes that the conservation movement, as part of late-nineteenth and early-twentieth century progressivism, grew out of “a growing sense of chaotic, wasteful change” and “strove to bring order out of chaos” (10). Conceiving of nature as a resource or wildlife as a crop – in both cases to be used and protected – was an attempt at ordering (not to be confused with halting) the chaotic changes wrought on the American landscape by rapacious expansion and industrialism. Paramount, according to Stradling, were “efficiency, purity, and the need for scientific understanding, *often gained through survey or inventory*” (10, emphasis added). In all of this we begin to sense the cultural roots not just of Leopold’s guiding metaphor, but of the ethos he constructed at this middle phase of his career: down through progressivism,

conservation, and the communities of applied and basic researchers whom Leopold had a stake in uniting.

But there is a further, deeper consequence of the *resource* and *crop* metaphors. Both are ways of making arguments about causation – that is, they assert that if we take certain actions, certain results will follow. Lakoff and Johnson argue that even though causation is often thought of as an “undecomposable primitive,” or an elemental concept that cannot be broken into smaller parts, it is in fact composed of “a cluster of other components.” This cluster, they claim, forms a gestalt, a whole that appears to be greater than the sum of its parts and therefore hides them, or calls attention away from them (69-70). The gestalt of causation can be broken into a process of “direct manipulation,” which has an agent, an action (or manipulation), a recipient of the action, and an end effect.

Entire systems of manipulation are hidden in the *nature is a resource* metaphor. In the case of forests, say, it suggests that trees are objects that we can and should know and use. As resources, they have monetary and material value as lumber that can be – *should* be – used to build houses, furniture, office buildings. And this lumber is not just property but *national* property, the resources of a political entity that is in competition with other political entities, and so has connotations of power in an international context.

On a smaller or at least less developed scale, *wildlife is a crop* contains its own manipulations, and in many ways Leopold’s body of work in the late 1920s and early ‘30s was an effort to make these manipulations plain, to describe them so they could be put into practice. But the *game management* gestalt, like all attempts to “manage” nature, had lines of causation that were hidden not through any incidental masking or intentional sleight of hand, but because so little was understood about how the animals lived and

what they required or preferred. So the argument of causation in thinking of wildlife as a crop, in which these inputs led to those outcomes, was riddled with holes. Leopold was more aware of these holes than anyone, and urgently advocated they be filled so a new class of “game managers” could act.

The genre of the game survey report was a creature of progressive conservation culture and a community of applied researchers, and even as Leopold used it to foster social and bureaucratic change, it came to him saturated with assumptions, many of them mirrored in his own experiences and ways of thinking (he was, after all, of the same culture). Because it was bound up with progressive optimism about government’s ability to effect large-scale change, it took as a given that once the proper course of action was found, it could be implemented at the state and national levels. The genre was itself primarily a tool of government, whose business it was to identify causes and allocate resources to them, so it generally placed a quantitative value on the resources in question to justify allocation. Leopold, as we have seen, was more subtle about that valuation. Rather than wading through dollar amounts, he characterized wildlife in terms of a valuable and familiar commodity – a crop – already being managed for efficiency by government agencies and university departments. The game survey report genre, being largely concerned with observing animals in the wild, was also a creature of the basic empirical science community that was concerned with gathering and recording knowledge and was convinced that nature had intrinsic value. All of these attributes were present in the genre before and after Leopold worked within it. To tweak a useful phrase earlier quoted from Dylan Dryer, they were taken up by Leopold and he was taken up by them in the ever-circular process of ethos formation.

Other Genres: Adopting and Adapting Contemporary Methods and Styles

To this point we have seen how Leopold used ethos and genre to appeal to varied audiences with the common interest of wildlife conservation. We have also seen how the game survey report genre served simultaneously as a cultural change agent and a vehicle for preserving the status quo. This final heuristic section will place Leopold's *North Central States* ethos more fully in the context of other wildlife-related genres that were written before and during the time Leopold's book was researched and published. Here I compare Leopold's book with articles in two journals that published on wildlife, *The Auk* and *Ecology*. Where the previous two sections looked at the contextual level of large-scale influence, the comparisons below show, at the textual level of rhetorical techniques, how the stylistic conventions of scientific-conservationist literature contributed to Leopold's ethos. When the analysis is complete, we will have a more detailed conception of the discursive ecosystem that brought about, and was changed by, Leopold's groundbreaking report, and a clearer sense of how and under what conditions he carved out a powerful institutional space for himself where one had not existed before. Before looking closely at the *North Central States* report, however, it is necessary to describe at some length my methods for reading the "other genres" and what I found in them.

My analysis of wildlife texts around the time of Leopold's game survey loosely follows the methods and findings of Alan G. Gross, Joseph E. Harmon, and Michael Reidy in their comprehensive rhetorical analysis of scientific articles from the seventeenth to twentieth centuries. Their chapters that catalogue the linguistic features that characterized scientific writing as it evolved in the twentieth century are particularly relevant to a study of Leopold. The *North Central States* report exhibits many of these features but also flouts some of what Gross, et. al. characterize as norms – or, it applies

norms of a different community and hence expands Leopold's ethos by adopting different sets of values. My analysis of the journals shows, in fact, less uniformity than that observed by Gross, et. al. in their corpus,⁵⁰ with some texts adhering closely to the structure and style they saw, and others departing from them. Further, a comparison between the journals and Leopold's report shows, as is consistent with the findings of the previous sections, that he incorporated stylistic features from across the spectrum represented in wildlife research.

The two journals I analyzed that were publishing wildlife research before and during Leopold's game survey are *The Auk*, the journal of the American Ornithologists' Union, and *Ecology*, of the Ecological Society of America. Both are published quarterly; for each I reviewed articles published in 1928 and 1929.⁵¹ I chose these journals because Leopold was familiar with them (he cited both in his report), because they reflect the diverse styles of basic researchers studying wildlife, and because the full run of each journal is digitized and available online. Of the two, the articles in *Ecology* are closer to what Gross, et. al. assert as the early-twentieth century scientific standard, while *The Auk's* articles maintain features identified with earlier generations of scientific publications or with publications from less purely scientific fields.

I followed Gross, et. al. in identifying articles according to their primary purpose and method. However, because my corpus was smaller and more focused on a comparison with Leopold, I only used four of their eight article categories (189-90): observational, experimental, methodological, and review. I judged articles to be *observational* if their primary purpose was to describe an isolated process, object or set of objects; *experimental* if the authors set in motion some sort of process for the purpose of

recording and theorizing the results; *methodological* if the author's focus was on describing a new research method or tool, questioning the value of an old one, or both; and *review* if an author relied entirely on the observations and experiments of others, offering no new ones of her or his own. In addition, I coded for the presence of particular features within the articles, identified by Gross, et. al., including charts, graphs, and tables; predomination of passive versus active voice; a standardized system of citation; hedging (or general caution in making conclusions or generalizations); author-centered narratives; and presentational features such as headings and captions.

The majority of articles in both journals were observational, accounting for nearly 90% of *The Auk* and nearly 70% of *Ecology*.⁵² The slight disparity results primarily from a higher number of experimental articles in *Ecology* and their near total absence in *The Auk*. In the latter, almost all articles are observations of a species or a detailed listing of the species in a particular place. Birds are usually studied in the wild, but not infrequently authors rely on museum collections of birds preserved by taxidermists. The researchers' underlying assumption seems to be that building a collection of knowledge about birds – a comprehensive list of species and their ranges, habits, and physical characteristics – is a good in itself. In a typical article, “Some Observations on the Nesting of a Pair of Yellow-Crowned Night Herons” (Nice), the author describes what she sees and hears over the course of several mornings. The article ends with a “Summary” that is a short numbered list of observed behaviors, with no further discussion of their meaning or relation to other factors, characteristics, or other literature.⁵³

Authors of observational articles in *Ecology*, on the other hand, often theorize the implications of their findings and nearly always situate them within the existing

literature. In “Influence of Sphagnum and Other Mosses on Bog Reactions” (Kurz) the author describes the conditions in a half dozen midwestern bogs, their composition as determined by sampling, and the apparent relationship between acidity and certain mosses. The lengthy discussion section compares the author’s findings to those of several other researchers; he affirms some and questions or refutes others. Gross, et. al. observe that mainstream twentieth century science moved away from “the cataloguing of nature” (24) common in earlier times (and in *The Auk*) toward “establishing explanations for the gathered facts” (193). Such is the case in this article and in *Ecology* generally, where authors go beyond observation to compare their work with others and create theories about conditions and processes.

These two different approaches create very different relationships between authors and their wider fields. The most obvious at a glance is reflected in the presence or absence of citations. Citations are central to nearly every article in *Ecology*, where authors take as a given the social nature of knowledge-making. To “do ecology,” it appears that one cannot simply observe and report, but must show a familiarity with what others have observed, what conclusions they have drawn, and where the new observations and conclusions take the field as a whole.

While citations were not unusual in *Auk* articles and, when present, were commonly used for the purpose of comparing findings, they were just as often not at all central to a given article. Where the social nature of ecological articles asserted itself in citations and an overall attention to the state of the field, ornithological articles reveal a kind of social connection in the familiarity and chattiness of their narrators. These articles – particularly but not exclusively those focused on places rather than species – establish

scenes of narrative action with characters in a setting that is often carefully or even lovingly described. One scene-setting passage reads:

The approach to the lake is along a drainage canal, and thence by a creek winding blindly through the marsh. Two of us in a canoe together followed the known course. As we advanced, we surprised Louisiana Herons hunting along the canal banks. Ducks sprang nimbly and Pelicans flapped heavily from the water before us. The silvery fins of tarpon gleamed from the surface. Overhead the numbers of sailing birds increased – Ibises, Pelicans, Water Turkeys – and suddenly the anticipation of many days was realized, when with swift, strong strokes three coral-pink birds came winging over the mangroves. No anticipation could surpass the startling beauty of these Spoonbills in the sky. (Christy 424)

It is safe to say that no such passage was likely to appear in *Ecology*. The narrator here is not merely present, but speaks breathlessly about what he sees and what he feels, to the point where the lapse into the more “scientific” passive voice – “the anticipation of many days was realized” – seems like a forced and unnecessary formality. A kind of bond of understanding is created between nature-loving author and reader, and it is here rather than in an edifice of cited knowledge where the sense of community shows itself.

Like the “cataloguing of nature” that Gross, et. al. identify as a marker of an earlier time in scientific literature, so these author-centered narratives were becoming less common in the early twentieth century. The articles of *Ecology*, the more typically modern of the two journals, bear this out. When narratives were used at all, it was in an

article's methods section. In contrast to the above passage that pulls the reader into a mutual appreciation of sublime nature, Gross, et. al. describe method narratives as “provid[ing] evidence that the authors followed some scientific method in the laboratory or field,” such that readers could judge the method to be “a plausible strategy for solving the problem stated in the introduction” (192-3)

Because author-centered narratives are a conspicuous feature of Leopold's *North Central States* report, I coded for them in *The Auk* and *Ecology*. For narratives to be so classified, they had to be more than simply methodological; that is, they had to construct a character – an ethos – whose presence was extraneous to the scientific purposes of the article. In the above narrative, for example, descriptions of the types of birds seen, or the manner in which the observational spot is accessed, or the number of people on the expedition are all plausibly within the bounds of scientific purpose, while the keen anticipation and deep appreciation of the observer are not. About 45% of *Auk* articles had such narrative features, while I found no articles in *Ecology* with them. In *The Auk* it was more notable to find articles that seemed to go out of their way to avoid author-centered narrative, as in this brisk introduction, quoted almost in its entirety: “In identifying some Francolins collected in Tanganyika and Uganda, it has been found that specimens of *Francolinus squamatus* from the Usambara District southeast of Mt. Kilimanjaro belong to an unnamed race” (Conover 356). Following this, the remainder of the article is devoted to a list-style description of the collected specimens.

Gross, et. al. argue that movement away from narrative is part of a larger movement toward “a specialized discourse where things and abstractions [rather than people, particularly authors] have become the foci of attention” (163). In this regard, as in

others, *The Auk* held onto stylistic and rhetorical features of an earlier time, while *Ecology* was more in line with the overall evolution of scientific rhetoric. Leopold's *North Central States* report adopted a stance toward narrative that blends the approaches of the two. Sprinkled throughout the report are narratives of discovery that do not reach the level of rapturous appreciation of nature found in *The Auk*, but which center on Leopold's authorial ethos in a way not seen in *Ecology*. As in the partridge-planting story discussed earlier, Leopold often illustrates his own movement from relative ignorance to relative knowledge, lightly placing himself at the center of a discovery narrative. Given that wildlife management was in its earliest stages, these narratives were commonly open-ended, calling attention to the need for more research.

In one example, Leopold describes a new hypothesis not by simply stating it and the evidence for it, but by relaying it as a procession of events in which he is a character. During his Iowa survey, "it was observed" (125) that successful plantings of pheasants and Hungarian partridge always occurred on land north of the border of Wisconsinian (most recent) or Illinoian (less recent) glaciation – that is, on glaciated soils. At that point he hypothesized "that some plant growing on these soils, or some substance" unique to the soils was necessary for these birds' survival (125). Subsequent surveys supported his "glaciation hypothesis:" "In Ohio heavy populations of pheasants were found to extend in 'ribbons' along the glacial outwash streams into the unglaciated area on the southern edge of the State, while few or no pheasants were found on the immediately adjacent unglaciated soils" (126). (For the most part, Leopold tells the story in the passive voice, but references to state surveys and other markers make clear that he is the agent and central character.) Then, in Wisconsin, a finding that might undermine his theory: "a

recent voluntary establishment” of Hungarian partridge on unglaciated soil that had moved from another unglaciated location while apparently maintaining its health (126). Seeking counsel, Leopold and the quail expert Herbert Stoddard presented their evidence to a poultry researcher at the University of Wisconsin, who informed them that “*nutritional deficiencies in poultry often do not show up until the second or third generation*” (127, emphasis in original). This could explain, Leopold surmised, why plantings south of the glaciation line survived sometimes for several months, even years, and why captive birds fed by keepers using northern foods and replenishing the stock with northern birds fared better than birds in the wild. At this point, the glaciation hypothesis is refined into the “nutritional hypothesis” (127). He is careful throughout to say that nothing has been proven, and he ends his narrative by proposing a cycle of experiments to test the validity of his assertions.

The glaciation narrative rests somewhere between the subjective nature writing seen in *The Auk* and the increasingly object-oriented science writing of *Ecology*. Leopold’s presence is far more central to the story’s meaning than in method-narratives primarily serving to shore up scientific credibility. Largely seeking to efface individual agency, the new objective science sought credibility for processes rather than people – that is, for research rather than researchers. And while Leopold’s ostensible focus is on knowledge about natural phenomena, the search itself is essential to the report’s meaning. Having set the research within its unfolding temporal flow centered in Leopold’s consciousness, the author invites us to see the logic of his conclusions, to experience the necessity of seeking counsel in the face of contrary evidence, and to watch him refine his theory as he gathers more information.

This narrative of discovery, however, is not the same as the author-centered narratives in nearly half of *Auk* articles of the time, because it does not dwell on emotional reactions to natural beauty. With Gross, et. al., I am not suggesting that the evolution of science writing away from such reactions is in any way an improvement. Leopold's later writings, especially those in *A Sand County Almanac*, are still with us largely because they blend the scientific and poetic with equal skill. I *am* suggesting that Leopold's *North Central States* report, consciously or not, walks the fine line between *The Auk*'s subjectivity and *Ecology*'s ascendant objectivity in a way that would likely have appealed to audiences of both publications. The narrative style appeals in a way that stories with identifiable characters and settings always do: by moving us from scene to scene as a character's perspective is enlarged, along with our own. Because Leopold is the central consciousness, his ethos grows with each new discovery. But because his presence is subtle, the science itself – the science of wildlife management – gains credibility.

Looking at other genres written within the broad community of wildlife researchers of the early twentieth century gives us insight into some of the possible motives behind and effects of specific stylistic features in the *North Central States* report. We see Leopold pitching his ethos in the middle-ground between the ascendant objectivism in the field of ecology and the personalized pathos of ornithological research. This blending of personae and styles, firmly weighted in the direction of the former, is consistent with the observations of this chapter's previous sections: embarking on a new field that would require the viewpoints and cooperation of a variety of conservationists

and researchers, Leopold sought unity at every level. But was it effective? The responses of his contemporaries suggests that it was.

Reception of the North Central States Report

Leopold's *North Central States* report was favorably received among hunters, researchers, and wildlife administrators. As indicated in this chapter's introduction, Leopold received letters of appreciation from people to whom he had sent complementary copies, and it is perhaps unremarkable that these individuals praised the book. They were under no obligation, however, to note its path-breaking status, as many of them did. P. K. Whipple, Associate Editor of the popular magazine *Outdoor Life* wrote to say, "I found your book immensely interesting and I know of nothing ever published in its field which so well combines scientific thoroughness, an impartial spirit and sympathy for the sportsman [...]." The head of the Forestry Department at Purdue wrote, "I hope this is a forerunner of a new series, through which some of us can slowly acquire a knowledge of a subject which has up to now been pretty much closed to us" (Prentice). P. S. Lovejoy of the Michigan Department of Conservation, with whom Leopold would maintain a long and rewarding correspondence, wrote, "Game management in America is going to 'date' from it. A few years from now the collectors will be paying prices for a copy of the original edition." Leopold received similarly appreciative words from sport hunters with no official conservation credentials, as well as from representatives of the American Game Association in Washington, D.C.; the United States Biological Survey; the ornithological journal *The Condor*; various natural-science departments in the universities of Minnesota, Michigan, and Ohio; and the *Indiana Farmer's Guide*. The *North Central States Report* spoke to the common interests of those best positioned to confront the increasingly organized response to wildlife depletion.

Reviews of the report in conservation publications came to similar verdicts and further highlight the breadth of its appeal. Each field or constituency seems to have found something of great value in Leopold's report and reviewers focused their comments accordingly. The reviewer at *Ecology* said that while Leopold's report did not explicitly identify itself as coming from the field of ecology, it "has a great deal of ecological significance and is of much interest to ecologists. For, the viewpoint of the author is ecological, and his book is a strong plea for ecological research in order to furnish a solid basis for game management" (Moore 748). In *The Condor*, a reviewer says that the book is "[o]f superlative value to anyone interested in the protection and restoration of game birds" ("Editorial Notes and News" 223). Another ornithological journal, *The Wilson Bulletin*, says, "This report is the most original and exhaustive study of upland game conditions which the reviewer has seen" (T. C. S.). The *Indiana Farmer's Guide* says, "[H]ere is a book that is going to attract a vast amount of attention, especially among rural-minded people," because it "points the way for farmers to make marginal lands pay returns" ("New Book Received"). The magazine *American Game* also focused on the report's agricultural aspects. The headline for its lengthy review reads, "Enlist the Farmer," and the article itself is primarily concerned with relaying Leopold's recommendations for stewardship of private land as it relates to wildlife (Richards). In Leopold's report, scientists found scientific value, whether for its methodology, review of available knowledge, or calls for future research, while game administrators found practical management advice and farmers found recommendations for land stewardship. In a particularly relevant comment, a representative of the American Museum of Natural History, who had gotten a copy of the book from the conservationist William Hornaday,

said in a letter to Leopold that he had long been discouraged at the prospect of getting all American conservationist factions on the same page. “[B]ut,” he said, “your work leads me to hope that there can be real cooperation between all who are interested in wild life protection” (Van Name).

The early 1930s marked a fertile period for Leopold and the field of wildlife management. In 1928, when he signed the contract with SAAMI to conduct the game survey, there was no such field. Less than ten years later, Leopold had authored two books on the subject and the first issues of the new *Journal of Wildlife Management* had been published. For a century, significant portions of the American public had been conscious of the nation’s wildlife problem – that technological and economic progress had also meant a sharp decrease in biodiversity – but its approach to solving these problems had been mostly negative, establishing what was *not* allowed, as with hunting laws that limited what could be killed where and when. Leopold stood at the forefront of a generation of manager-researchers influenced by a new ecological perspective on wildlife that connected animals’ well-being not only with hunting practices, but with agriculture, grazing, erosion, and public and private land management.

As we have seen, Leopold’s ecological perspective on wildlife extended beyond a view of nature itself to his rhetorical practice. In discussing wildlife and its management he prioritized relationships between animals, plant life, and soil, as well as agriculture, hunting, and legislation. In communicating his ideas, he sought identification with the broad spectrum of conservationists. He called upon the knowledge of farmers and hunters unfamiliar with research and researchers unfamiliar with farming and hunting, placing them side by side, if not quite on equal footing. He spoke the language of basic and

applied scientists who valued the pursuit of knowledge for its own sake, and of the government bureaucrat who had to justify his existence with projects completed and the efficient use of funds. And he used the rhetorical techniques of an older scientific practice that still valued pathos and author-centered narratives, while moving strongly in the direction of the new objectivism in which knowledge was created only in relation to other, cited knowledge, and findings were relentlessly quantified. For Leopold it was imperative that the new science of wildlife management speak to all of these groups because successful management would require the unique actions that each could provide. Just as ecological science was predicated on relationships between environmental factors of all sorts, so did an ecological rhetorical practice foreground relationships between and seek identification with many different conservationist stakeholders.

The genre of the game survey report was sufficiently rooted in a bureaucratic-scientific tradition that it automatically carried forward values common to these stakeholders, yet it was new enough to accommodate significant change. The *North Central States* report did not have to argue for the need for more wildlife; it could assume that particular need as a value common to all readers of the genre. Likewise the assumption that knowledge and control of nature went hand in hand, and that both were good. Leopold could also use techniques being developed in the rapidly evolving scientific article, both to speak to practitioners of basic science and to lend his survey significant credibility. But he could also rely on narrative techniques that were disappearing from the scientific literature to enhance his ethos in a less specialized way

that would resonate with a broader swath of readers than would typically relate to a piece of basic research.

In the *North Central States* report we see the method and the power of ethos-building that is sensitive to rhetorical ecology – that is, to the assumptions, values, and communication styles of those with whom a given text aims to identify. And in the above analysis of the report we see ethos and genre as rhetorical spaces in which rigid social structure and dynamic social change meet. Respecting certain elements of the status quo, Leopold reflected the generic resources of several different kinds of writing devoted to the observation of nature. In doing so he represented the existing values of mid-twentieth-century conservation. Aiming toward some degree of achievable change, he sought not only to reflect existing values at different points in his report but to embody them in the ethos that was the report's foundation.

Just as he did in the *Pine Cone* and as he would later do in *A Sand County Almanac*, Leopold created in the *North Central States* report an ethos for others to follow. In a way unique to this moment in his career, however, the *North Central States* ethos was, in accordance with the scientific nature of the game survey report genre, specialized rather than generalized. Unlike the sportsman citizen we saw in Chapter 2 or the naturalist landowner we will see in Chapter 5, Leopold's *North Central States* ethos was not a model because it was not achievable by just anyone. Only certain qualified professionals could perform a game survey rigorous enough to satisfy the intellectual expectations of other professionals, and even fewer could write it in a way that honored the perspectives of researchers, hunters, farmers, and businessmen while still adhering to the requirements of the genre. The *North Central States* report sought to create a new

public, as had been Leopold's goal in New Mexico, but in a way that established him as its leader.

Coming almost exactly at the midpoint of his career, this report and the ethos constructed in it reflect in equal measure where he had been and where he was going, and appear to suggest a linear progression. Leopold's writings of the late 1920s and early '30s had left behind the strident polemic of the *Pine Cone* and his new ethos was far more accepting than the exclusionary sportsman citizen he crafted in 1910s New Mexico. Also suggesting progression is his movement away from a focus on the individual hunter subject to public regulation and imposed ethical codes, and toward the broadly balanced attention to land ownership and farming, agricultural institutions, legislative bodies, state conservation infrastructure, and university researchers that eventually anchored *A Sand County Almanac*. But as we will see in the next chapter, Leopold expanded and contracted his ethos and the values it encompassed according to varying rhetorical situations, not in a smooth, career-long progression. By creating an expansive ethos for the newly forming field of wildlife management, Leopold gathered considerable institutional power to himself. Ten years later, when he needed to deploy that power outside his immediate sphere of disciplinary influence and into the public sphere of state governance, he shrank it to reflect the limited concerns of the scientific bureaucrat. It is to this ethos that we turn in the next chapter.

Chapter 4

Dreaming of “a better public”: Rhetorical Scarcity in Wisconsin’s Deer Irruption Crisis

In the last eight years of his life, Aldo Leopold drafted and published many of the essays and short sketches that would secure his place in the canon of American environmental literature. He also waged the most public and, in many ways, least successful rhetorical battle of his career. This was the Wisconsin deer irruption debate, in which hunters, conservation professionals, political appointees, and legislators argued passionately over how to manage a deer herd that had grown beyond the capacity of its habitat – the state’s northern forests – and as a result faced imminent starvation. Leopold wanted the state to adopt, in 1943, an “antlerless season” in which hunters would shoot does and antlerless bucks instead of their customary full-grown bucks, a course of action that, while ecologically sound, ran starkly against the grain of American hunting culture. While the writings that would eventually be reprinted in *A Sand County Almanac* construct an ethos that blended his hard-earned empiricism with philosophy, pathos, humor, and biting irony, the ethos of the deer irruption texts evinced a strict, almost frigid rationalism that led one of his opponents to mockingly call him “the great Aldo” (Meine 469). When the antlerless season became an open season on both bucks and does, and, in the words of one game warden, “the county was strewn with blood and guts” (“Deer Slaughter”), Leopold became the target of considerable public ire.

The coldness of Leopold’s deer irruption writings stands in contrast not just to his *Sand County Almanac* essays reviewed in this and the next chapter, but to his *Pine Cone* writings explored in Chapter 2 and the *North Central States* report examined in Chapter 3. The concept of ethos, along with Risa Applegarth’s notion of “rhetorical scarcity,”

helps explain these contrasts. In all of Leopold's writings *except* the deer irruption texts, he constructed an ethos whose values overlapped and extended the values of the public he was trying to create, simultaneously validating their current position and asking them to go farther along the road of conservationism. In the *Pine Cone* this technique served to spread an ethic of sportsmanship in the absence of sufficient law enforcement. In the *North Central States* report it led disparate groups to see their common stakes in the new field of wildlife management. In the deer irruption texts, however, Leopold asked readers to extend their conservationist practices without first identifying with or validating their current positions. He created an ethos, and an ethic, that offered no participatory role for the "better public" he sought (Leopold "Land-Use and Democracy" 263).

This chapter argues that Leopold's deer irruption texts construct an ethos that relies wholly on the institutional and cultural power of science, thereby denigrating emotional ways of knowing nature in a highly emotional debate and alienating a large portion of his audience. It compares this ethos to the one of Leopold's *Sand County Almanac* essays, written at the same time, that balances scientific, ethical, and emotional valuations of nature, showing that, in the years immediately preceding his death, Leopold still struggled mightily to communicate his ecological vision to a diverse conservationist public. This narrative of fragmented *ethoi* seeks to complicate the more widely accepted, smooth narrative of Leopold reaching the pinnacle of his rhetorical powers at the end of his life.⁵⁴ Applegarth's concept of "rhetorical scarcity" aids in this argument by calling attention to the way rhetors can define one set of rhetorical techniques as scarce and valuable in a given conflict, and others as common and of no value. With the help of the Wisconsin press, Leopold characterized scientific understanding of nature like his own as

a scarce, valuable resource, and emotional understandings of nature as a reflexive crutch to be discarded. The economic metaphor of scarcity, in contrast to the ecological metaphors of the last chapter, help to show how an ethos strictly committed to scientific knowledge can fail to identify in the public sphere. Because an ethos works by reflecting the principles of a community rather than simply those of an individual rhetor, an ethos that strictly limits what principles are acceptable in public debate also limits which communities can legitimately participate in that debate. The ethos dubbed “the great Aldo” held the scientific high ground against those who relied on an emotional understanding of deer and hunting, resulting in proposals that were ecologically sound but politically disastrous.

Rhetorical critic H. Lewis Ulman’s examination of Leopold’s ethos centers, like the one in this chapter, on his deer irruption and *Almanac* writings, but this chapter extends Ulman’s largely celebratory understanding of Leopold, nearly twenty years old, toward our twenty-first century needs. Ulman’s perspective is that of the literary critic looking backwards at a canonical figure whose views have been validated by history and whose writings tell us something fundamental about the broad genre of “nature writing.” To this end, Ulman examines a unified ethos across a range of texts that represent Leopold as a versatile, canny rhetor whom we should look upon as a model of rhetorical practice (73-4). The below analysis conceives a fragmented ethos that employed sharply contrasting rhetorical methods with strikingly different results, and examines these methods as they unfolded in time for their audiences rather than in the glow of Leopold’s ultimate successes. The approach in this chapter yields a study that is more directly

comparable to our current struggles, as we find ourselves, like Leopold, armed with scientific consensus that a public remains unwilling to accept.⁵⁵

The following sections review in detail Wisconsin's deer irruption crisis before proceeding to an analysis of Leopold's role in the crisis. As part of that analysis, this chapter explains Applegarth's concept of rhetorical scarcity in her own terms and then draws on the field of ecological economics to extend it into environmental rhetoric. After comparing Leopold's deer irruption texts to his other writings of the same time, the chapter places the deer debates in the cultural context of World War II, during which they unfolded. It concludes by relating Leopold's ethos to our own debates about global climate change, finding that we continue to rely on the logocentric arguments of science even as the publics we seek to persuade respond much more readily to messages that originate from personae and emotions that are familiar to them.

Wisconsin's Deer Irruption Crisis: Ecology and Public Rhetoric

The early 1940s were momentous years for the United States as it dedicated its production capacity, its economy, and its citizens, for the second time in twenty-five years, to a sprawling war effort. For reasons related in some ways to the war effort but unrelated in others, these were also momentous years for Aldo Leopold, as he tackled very publicly and for the first time from an official government position a conservation crisis that was equal parts economic, ecological, political, and rhetorical. The crisis, in essence, was that Wisconsin had too many deer, so many that they overbrowsed the state's northern woods, damaging them irreparably, and in the winters starved to death by the thousands. The size and situation of the deer herds were the result of many factors. Agricultural development in southern and central Wisconsin concentrated the animals in the northern forests. When loggers stripped the forests, they left the ground littered with

branches and other edible detritus creating an unnatural surplus of food. Now exposed to sunlight unbroken by large tree crowns, the forest floor sprouted much more woody undergrowth than was typical – another surplus. Deer herds thrived on these two large and easily accessible food sources, and with predators like wolves and bobcat largely exterminated in the previous century, and new protective hunting laws, Wisconsin's deer population exploded.⁵⁶

By the early 1940s Leopold was a seasoned veteran of wildlife research and had seen such deer irruptions before, in Arizona, Michigan, and Pennsylvania, where hindsight told wildlife managers that the only way to salvage the herd and the forests in the long-term was to close or severely limit hunting seasons to bucks, and open them to “antlerless” does and young bucks. (Because deer are polygamous, reducing the number of does was the most efficient way to reduce the herd; and because it was difficult if not impossible for hunters to distinguish between does and antlerless bucks in the field, pure doe seasons were impractical – thus, antlerless seasons.) However, to be a “sportsman” at the time was to be immersed in a culture strongly averse to shooting female deer. During Pennsylvania's irruption crisis, hunters had adopted the slogan “Don't be yellow and kill a doe” in response to proposed doe seasons (Leopold “Deer Irruptions” 6). In addition to the ecological crisis of an out-of-control deer herd, Leopold faced a rhetorical crisis well known to us now: how to persuade a large, diverse public to follow the recommendations of “experts” when those recommendations clash violently with cultural norms. Indeed, Wisconsin's deer irruption was a human-created crisis long in the making that offered no good options.

Leopold had first become aware of impending problems in the late 1920s when he surveyed Wisconsin for his multi-state game survey published in 1931, and as a resident of Wisconsin and an avid hunter he had paid close attention ever since. In his survey he noted that roughly two-thirds of state land was given over to agriculture, and close to one third to forestry, with neither environment particularly hospitable to deer. Even though logging left deer with a double surplus of food, the “slash and burn” methods of lumber companies left little or no cover. Super efficient farming techniques offered a similar situation for deer, minus the food. Any good habitat existed “wholly by accident,” said Leopold, as neither farmers nor foresters had “thought of game management either as an obligation, nor as an opportunity” (Leopold “Report on a Game Survey of Wisconsin” 4). In 1937 the United States Congress passed the Pittman-Robertson Act allocating funds for wildlife protection and research, and from 1940-43 the Wisconsin Conservation Department conducted a deer study funded largely by federal funds and run by Leopold’s friend and colleague William Feeney (“Pittman-Robertson Act”; Feeney). In the winter of 1942-43, Feeney found more than 1,400 dead deer, 80% of which had died of starvation or malnutrition, and 77% of which were fawns (Feeney 13).

Leopold became officially involved when he was appointed to and named chairman of two separate state committees, newly created in the fall of 1942, both of which were equally devoted to scientific investigation and public persuasion. The first was the Citizens’ Deer Committee (CDC), called into being by Wisconsin’s Conservation Commission (WCC) and tasked, as a newspaper report at the time said, with “checking on reports previously made by department experts that there are too many deer in many of the northern deer yards for the available food supply” (“Deer Study”). Leopold was

also appointed chairman of the Natural Resources Committee under the aegis of the state Academy of Sciences, Arts, and Letters. In September, Academy president Bill Shorger had sent an open-ended request to Leopold saying he would like to support conservation efforts in the state and would welcome any input. Leopold responded that “the most important single problem, and the one least likely to receive adequate attention, is the deterioration of the northern forests by excess deer,” further lamenting that “the public is not yet persuaded that any action is necessary. The scientific community is hardly aware of the threat, and there is division of opinion even within the [Conservation] Department” (Leopold to A.W. Shorger 1). Shorger created the committee shortly thereafter.

Both committees came about largely because of a felt need to persuade large numbers of people, in a way that was designed to appear non-political, to go along with a plan they were likely to resist. The name “Citizens’ Deer Committee” emphasizes the regularity of its members (among whom Leopold was the only conservation professional), who were to check for themselves “reports previously made by department experts.” When Shorger designated the work of the Natural Resources Committee, he listed as one of its primary purposes “calling to public attention urgent problems,” and further noted that, “[b]eing free from all political bias, the Academy should be considered as strictly impartial in its recommendations” (Shorger to E. F. Bean). Not yet a public force in Wisconsin politics but somewhat known as a conservationist and teacher, Leopold’s ethos lent both committees scientific credibility without the taint of government meddling, and a proven ability to communicate with the public.

Leopold kept the work of the two committees separate but arranged for the public documents they were charged with writing to come out around the same time. For the

Natural Resources Committee, he compiled a short history of deer irruptions in the United States. Meanwhile, the Citizens' Deer Committee conducted field trips into northern deer yards to check whether conditions matched the dire ones reported by Feeney and the Conservation Department and followed up their investigations with a recommendation report. The field investigations were touted as public affairs, and Leopold made it known that all were welcome, especially journalists. Local papers published the Committee's itinerary, noting that "Prof. Leopold said anyone interested in the deer problem could accompany the party" ("Citizens' Group"). Between May and August of 1943, Leopold's deer irruption history was published as a technical report in the *Wisconsin Conservation Bulletin* and as a more reader-friendly narrative in *Audubon*, a popular national magazine. In June, the Citizens' Deer Committee published its report on its field observations, recommending an antlerless season for the coming fall. All of this amounted to a coordinated public relations effort toward a course of action that Leopold and his conservationist colleagues knew would be a hard sell. When, in June, Leopold was appointed by Wisconsin's governor to the state's six-member Conservation Commission, he became, even more than he already was, the public face of the coming 1943 hunting season.

On June 21 the Conservation Congress, a body of county-level delegates tasked with advising the Commission, voted overwhelmingly for an antlerless season ("Conservation Congress").⁵⁷ But in August the Commission, which had final authority, instituted an "open" but separated season on antlerless deer and bucks, with four days of shooting on each. This was not an option Leopold favored, but he voted for it anyway, likely afraid that the alternative was a status-quo buck season. Surmising as to why the

Commission would go against the recommendations of the Congress, the Citizens' Deer Committee, and Feeney, Flader cites widespread public opposition to a purely antlerless season. She notes that “[o]ne week before the August meeting of the commission, the state assembly came within one vote, 46 to 47, of accepting a resolution opposing ‘the proposed slaughtering of deer.’ As the resolution put it, they were ‘dissatisfied with, and skeptical of, the findings of the investigating committee’” (Flader 197).

The open season, no one's first choice, proved to be a disaster. Multiple headlines characterized it as a “slaughter,” with the press reporting kill estimates as high as 200,000 (though that number was later revised down to around 125,000), or about 40% of the state's herd (“Deer Slaughter”). More than one news outlet quoted a warden from Vilas County, the epicenter of opposition to shooting antlerless deer, as saying, “The county was strewn with blood and guts from one end to the other” (“County Strewn With Blood,” “Deer Slaughter”). Though Leopold had advocated for a strictly antlerless season, his stature, presence, and close identification with culling the herd made him a prime target of public anger.

Rhetorical Scarcity, Ethos, and Ecological Economics: Enlarging an Analytical Framework

Before proceeding in the next section to an analysis of Leopold's deer irruption writings, this section reviews and extends Risa Applegarth's concept of rhetorical scarcity. Duly enlarged with insights from the field of ecological economics, rhetorical scarcity provides an ideal framework in which to view Leopold's ethos as it was constructed in his own writings and in its representations in the local press, and how it was used to privilege one type of discourse and stifle others.

As Applegarth defines it, rhetorical scarcity “is a manufactured situation of intense and increasing constraint within a genre that significantly restricts rhetors’ access to key rhetorical resources” (*Rhetoric in American Anthropology* 29). Examining the development of the field of anthropology in the late nineteenth and early twentieth centuries, Applegarth coins the term to describe how the new discipline used its constituting genres – primarily the ethnographic monograph – to limit who could be considered a practicing anthropologist. Though it originally defined itself as a “welcoming science” open to “anyone who had the capacity for patient observation and careful record-keeping” (Applegarth *Rhetoric in American Anthropology* 1, 25), the need for research funding and institutional credibility led anthropology to develop a strict gate-keeping apparatus designed to tighten its standards. Applegarth argues that the ethnographic monograph accomplished this task by building “substantial rhetorical constraints [...] to create precise distinctions between legitimate and illegitimate practitioners” (Applegarth *Rhetoric in American Anthropology* 27). These constraints included a demand for inquiry built on academic scientific training, closing the field to ethnographers who, through prejudice and custom, did not have access to such training – particularly women and racialized minorities. In other words, as the field professionalized it manufactured a scarcity of rhetorical resources in order to create value. While many people practiced ethnography in a variety of ways, anthropology shrunk the bounds of acceptability in its leading genre, increasing the value of some research and writing practices and decreasing the value of others.

On its surface, the concept of rhetorical scarcity might appear to violate the linguistic principle of the infinite creativity of language, which, in the words of Noam

Chomsky, posits that “[l]anguage provides finite means but infinite possibilities of expression constrained only by rules of concept formation and sentence formation [...]” (76). After all, early- and mid-century scientists, whether they were anthropologists or ecologists, could not, through their own arguments, limit the linguistic possibilities of others. From their positions of considerable institutional power, however, they could limit the social value assigned to certain expressions (as they still do through instruments like peer-reviewed journals and university presses, which enforce the norms of genres and other discursive forms). While aspiring anthropologists without university training could no doubt muster the language necessary to create ethnographies, and Wisconsin conservationists were free to make emotional pleas against culling the deer herd, their expressions were not guaranteed a public hearing, much less a positive reception. The infinite creativity of language refers to the possibility of formulating one’s ideas in words, but rhetorical scarcity refers to the ability of institutionally powerful rhetors to devalue some verbal expressions and value others, thereby exerting control in the social realm of language use.

In applying rhetorical scarcity to Wisconsin’s deer irruption debate, this analysis seeks to expand Applegarth’s concept in two ways. First, Applegarth focuses her analysis on genre, but this chapter extends her useful concept into the realm of ethos. Both genre and ethos, as we saw in the previous chapter, sit at the intersection of individual agency and social determinism because both *limit* individual action within the realm of existing social values while also providing spaces for the transgression or *expansion* of those values. The previous chapter relied on ecological metaphors of connection to show how Leopold used a broadly accepting ethos to *expand* access to a newly forming field. This

chapter relies on the economic metaphor of rhetorical scarcity to show how Leopold used a narrowly defined ethos to *limit* access to a debate over public policy. Just as a powerful genre can constrain a rhetor's ability to intervene in a discussion in which that genre is the accepted form of communication, so can a powerful ethos limit the acceptable forms of discourse in a given community. Rhetorical scarcity gives us a conceptual framework for showing how such limitations work in the public sphere.

The second way this chapter seeks to expand Applegarth's concept is by exploring the depth and utility of the "scarcity" metaphor, much as the previous chapter explored the metaphorical properties of "ecology." Where Applegarth focuses on the "manufactured" scarcity of rhetorical resources in anthropology's quest for prestige, however, Wisconsin's deer debate centered on elements of ecosystems, such as large predatory mammals, rendered scarce in materially real, potentially irreversible ways. The deer irruption crisis, then, provides an occasion for expanding the nuance and reach of Applegarth's useful term. By "manufactured" Applegarth means that rhetorical resources are "resources that are not inherently limited" (Applegarth *Rhetoric in American Anthropology*, 32). But the deer irruption crisis shows how they can be both manufactured *and* inherently limited. For example, in the deer debates there was a real dearth of informed opinion; Leopold truly possessed valuable knowledge that was in short supply. Rhetorical resources were also inherently limited in the sense that if nothing was done, deer really were going to die the slow, painful death of starvation by the thousands, and Wisconsin's forests really were going to sustain damages that could take decades to recover from, ecologically and economically. Under such conditions, only a small number of arguments could prevail. Those officials tasked with managing human

interaction with the non-human natural world had to choose from among the available means of problem-solving, selecting some and rejecting others. In the necessary process of governing, rhetorical resources are always limited.

We can extend the range of rhetorical scarcity by incorporating insights from the field of ecological economics about what it means for a resource to be scarce. This relatively new field has already garnered attention from environmental rhetoricians. In the final chapter of *Ecospeak*, their foundational work of environmental rhetoric, M. Jimmie Killingsworth and Jacqueline S. Palmer argue that ecological economists provide a model for the kind of interdisciplinarity that complex environmental problems demand, and they connect the field's attention to "scientific theory" and "ethical arguments" with the tradition of Aldo Leopold (244-45). As opposed to mainstream neoclassical, or "high-growth economics,"

[t]he programs of these new economists call instead for a revision of liberalism toward a social ecology, in which institutions, communities, and individual people promote forms of development rooted in scientific understanding, ecological wisdom, small-scale production, environmentally conscious consumption, and community-based ethics.

(Killingsworth and Palmer 240)

Ecological economists Stefan Baumgärtner, Christian Becker, Malte Faber, and Reiner Manstetten's attention to scarcity sits squarely within this scientific-ethical interdisciplinary framework. They note that at the most general level, questions of scarcity are always questions about "a relation between humans and nature" and that if we follow them to their roots, as we must, we are confronted with matters that exceed the

reach of either ecology or economics – ““What is a human?”” ““What is nature?”” – and enter the realm of philosophy (488) and, I would argue, ecocriticism and environmental rhetoric.

For Baumgärtner et al., scarcity reveals the limits of classical economics, and of ecological economics as well. They review the concept’s history to show that, around the latter half of the nineteenth century, the economic understanding of scarcity shifted “away from humans’ dependency on nature and toward exchange of produced commodities” (488). The eighteenth and early-nineteenth-century economist Robert Malthus, for example, famously (and, as the common economic wisdom now suggests, wrongly) argued that limited natural resources and the difficulty of subsistence acted as checks upon population growth, implying that economic growth was inherently limited (488).⁵⁸ Now, however, “Neoclassical economics has adopted a more abstract notion of scarcity which does not refer specifically to natural resources anymore, but is based more generally on human desires and preferences on the one hand and objective capabilities to fulfill them on the other” (488). This development, in which modern economics has walled itself off from the natural world, has coincided with the ascendance of economics as the primary arbiter of value in the capitalist cultures that dominate the world’s most powerful nations. Much of Leopold’s later writings, and some of his earlier ones, called attention to and sought to reverse this state of affairs. He saw the prevailing, economically focused worldview as a fundamental denial of ecological connection and dependence. In the foreword to *A Sand County Almanac* he says, “We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect. [...] [O]ur bigger-and-better

society is now like a hypochondriac, so obsessed with its own economic health as to have lost the capacity to remain healthy” (viii-ix).

Baumgärtner et al. use economics’ historical shift away from nature to illustrate the distinction between “relative” and “absolute” scarcity, terms coined by Herman Daly, one of the ecological economists whose work is examined at length by Killingsworth and Palmer. According to Baumgärtner et al., neoclassical economics confines itself to matters of relative scarcity, while ecological economics attends to both relative and absolute scarcity. In economics generally, “a means of production or a consumption good is said to be *scarce* if it carries opportunity costs” (Baumgärtner et al. 489). In order to obtain a scarce good or service one must trade something else for it, whether it be money, another good, time, or some other commodity. In essence, then, all goods for which people are willing to pay are scarce, and their scarcity (as well as their value) is “relative” because it is defined against the availability and cost of other goods rather than against an absolute standard.

An important consequence of relative scarcity is the principle of substitutability, the underlying assumption that goods are substitutable for one another. Baumgärtner et al. argue that neoclassical economics does not move beyond relative scarcity and substitutability even when considering interactions between human economies and non-human nature. “In the view of [neoclassical] economics,” they say, “both human preferences and real production possibilities, including production by nature, are characterized by substitutability. [...] Thus, nature is seen as consisting of substitutable and reproducible environmental goods which serve the purpose of satisfying human preferences” (490). Given the power of neoclassical economic reasoning, the

consequences of this viewpoint are profound. When all things within the vast borders of the economy are substitutable, nothing has intrinsic worth, and anything falling outside these borders is assigned no value at all. Leopold makes a related point in “The Land Ethic” when he notes that only about five per cent of Wisconsin’s native plants and animals had any calculable economic worth, and were thus ineligible for protection under an economic regime. These insights come under the heading “Substitutes for a Land Ethic,” his point being that nothing is substitutable for native plants and animals, just as economics as currently practiced is not a substitute for a land ethic (*A Sand County Almanac* 210).

The innovation of “absolute scarcity” seeks to bring ecological concerns into the realm of economics, and to show the limits of an economic mindset, whether neoclassical or ecological. It applies “when scarcity concerns a non-substitutable means for the satisfaction of an elementary need and cannot be levied by additional production” (Baumgärtner et al. 490). In other words, something is absolutely scarce when more of it cannot be produced and nothing can be substituted for it. Whether a good is absolutely or relatively scarce can differ across contexts and change over time. For example, the development of the artificial heart means that, given the proper conditions, “the absolute scarcity of the life-supporting function of the natural heart has been transformed into a relative one” (Baumgärtner 493). Ecological economists argue that natural ecosystems, biodiversity, and processes known as “ecosystem services” (e.g. seed dispersal, pollination by insects, naturally occurring food crops) are absolutely scarce.

But, as Baumgärtner et al. conclude, the complexities of these matters make questions of scarcity too multifaceted for any single discipline to confront. Collaborations

between ecological economists, ecologists, and other natural scientists can determine whether something is absolutely or relatively scarce, but even then an engineering perspective, for example, may be necessary for figuring out if it is possible to substitute technology for a given resource or process (492). And, as noted above, questions about the interaction between humans and nature ultimately enter the realm of philosophy (495). Further, as we have seen repeatedly in the case of Leopold, if solutions to environmental problems are to be implemented in a democratic society they also enter the realm of rhetoric. In urging coordinated collaboration, Baumgärtner et al. end on a note we might see as essentially Leopoldian, in content if not in style: “Assessing the roles of economics and ecology for biodiversity conservation ultimately requires the embedding of the economic and the ecological view on human kind and nature into an encompassing philosophical understanding of the relationship between humans and nature” (495).

While the language of ecological economics can enrich our understanding of the Wisconsin deer crisis and other instances of public environmental debate, its limitations, like those of any framing metaphor, must be acknowledged. Framing entities like deer herds and forests in terms of scarcity means referring to them as “resources.” Just as scarcity is a metaphor that frames our understanding of a given issue in certain ways, facilitating some views and blocking others, the term “resources” helps and hinders different perspectives on non-human nature. Chapter 4 confronted these problems in a discussion of Leopold’s characterization of wildlife as a series of “crops.” Calling deer and forests “resources” foregrounds their use-value for humans and hides their intrinsic or ecological value as living beings with integral ecosystemic roles to play.

Thinking through the consequences of the word “resource” being applied to living creatures, the wildlife crusader John A. Livingston says, “If the highest purpose is the human purpose, then the purpose of the nonhuman is to serve that purpose, necessarily and inevitably. This is what we are saying every time we use the word ‘resource’” (102). But Livingston’s point, pungently summarized in his book’s title, *The Fallacy of Wildlife Conservation*, is that any association of wildlife with human systems, whether material or metaphorical, deprives it of its wildness and redefines it as something else. More recent scholarship has shown that this separatist perspective is empirically inaccurate and ecologically destructive. The central thesis of journalist and climate activist Bill McKibben’s *The End of Nature* is that global anthropogenic phenomena like climate change have brought an end to the idea of nature as something untouched by humans. The influential natural historian William Cronon has argued persuasively that thinking of the natural environment as “capable of preserving its natural balance more or less indefinitely if only humans can avoid ‘disturbing’ it” is “in fact a deeply problematic assumption” (24). The deer irruption crisis is a case in point: deprived of predators and given an artificial surplus of food, deer herds flourished beyond sustainable levels, forcing humans to again intervene in a problem of their own creation. This chapter proceeds, then, in the knowledge that metaphors powerfully shape the way we understand our world, and that while economic metaphors can hide the intrinsic value of non-human nature, they can also reveal the ways in which the human and non-human are inextricably intertwined.

Scarcity and the Limits of Rationalism: Leopold’s Deer Irruption Ethos

Digging into the concept of scarcity, then, provides insight into how it might be used productively across a range of contexts, in analyzing the work of Aldo Leopold and more

broadly in the field of environmental rhetoric. Relative scarcity is useful for thinking about substitutability within systems created and managed by humans. This is the type of scarcity that attracts Applegarth. For her, it is useful because it assumes that the process of devaluing some discursive features and valuing others is “manufactured” rather than natural. In the language of economics, Applegarth’s assumption is that there is no inherent reason why one set of rhetorical techniques in early-twentieth-century anthropology was not substitutable for another. Including both relative and absolute senses of scarcity in the idea of rhetorical scarcity shows, for example, that Leopold’s rationalistic approach to the deer irruption crisis was both highly valuable, because it offered an absolutely scarce perspective, and unnecessarily exclusionary, because it used its absolute scarcity as justification for crowding out other useful perspectives.

Leopold approached the deer irruption problem as a scientist. But many in the hunting and conservationist publics, particularly those who lived in the northern Wisconsin woods, valued their own local knowledge over the perspectives of downstate “experts” (Meine 438). Leopold’s rationalistic approach to public debate, coupled with the overwhelming support he enjoyed in the state press, created an atmosphere in which scientific training and observation were valued at the expense of all other ways of knowing the natural world. It is possible that Leopold felt the issue of deer irruptions was sufficiently soaked in emotional appeals that he needed to guard against them. Conservation Congress delegates had been shown a sensational film, “Starvation Stalks the Deer,” made during the Citizens’ Deer Committee’s tour of overbrowsed deer yards (Meine 446), and, much more publicly, Walt Disney’s *Bambi* had recently been released (Meine 442). It is understandable that Leopold would prioritize scientific knowledge in

an ecological crisis where time was of the essence. But the rhetorical effect of his narrowly constructed ethos was to shut out a significant portion of the public from the democratic process in the short term, and to create public resistance to that ethos and the policies it stood for in the long term. Leopold created this ethos in a series of documents he wrote for public consumption, but he was aided considerably by the state press.

(Over)Valuing Rationalism: Leopold Constructs His Ethos

Leopold made three public statements on the deer irruption crisis during the lead-up to the 1943 hunting season. The “Majority Report of the Citizens’ Deer Committee,” the result of the Committee’s visits to overbrowsed deer yards, was sent to the state Conservation Commission in June (the same month Leopold was appointed as a commissioner) and published in the *Wisconsin Conservation Bulletin* in August. That same publication featured Leopold’s “Deer Irruptions,” a history of the phenomenon in other states. A less technical version of this history was published in the May-June issue of the popular *Audubon* magazine as “The Excess Deer Problem.” In these writings he used his considerable scientific knowledge and political savvy, as well as his increasingly well known ethos, to advocate for what he saw as the only course of action open to a good citizen of the natural world.

The “Majority Report of the Citizens’ Deer Committee” is notable for a mismatch between its ostensible connection with “everyday” values and its narrowly professionalized ethos. As discussed above, the report was billed in the local press as a check upon William Feeney’s three-year deer study that found too many deer in the northern woods. A check was necessary because many northerners, including state conservation workers, were so accustomed to thinking of the deer herd as something to be increased that they received Feeney’s findings with skepticism or outright disbelief

(Flader 181-83). The name of the committee evoked the wisdom of citizens as opposed to the clinical knowledge of researchers, and, with five of its nine members hailing from the less populated and more skeptical northern part of Wisconsin, the committee's makeup was also crafted to reassure the state's hunting and conservationist publics that their and the deer's interests were represented.

Yet the ethos of the report, written largely by Leopold, is that of the researcher unmoved by the suffering of the animals under consideration and insistent about what the state's general populace did not know but should be taught. The report's description of the "Present Situation" reads like a list rather than a narrative, and treats harmed trees and starved deer with the same cold objectivism:

Of the eight yards visited by the whole committee, all showed severe damage to good food plants, such as white cedar, red maple, striped maple, ash, upland willow, and leatherwood. None showed any living white cedar browse within reach of deer. In all yards deer were eating inferior foods such as balsam, hemlock, and aspen, and in some deer were eating alder, the poorest of foods. [...]

Many dead deer were autopsied in the presence of the committee. All showed full paunches, and all contained balsam. The lungs showed pneumonia, which accompanies malnutrition. The autopsies witnessed by us revealed few parasites, and no evidence of other diseases. (20)

Following these reports is the committee's primary recommendation: "We see no remedy except to reduce the deer herd to what the yards can carry without losing their good natural winter food plants. [...] The present starvation of fawns is not reducing the herd.

Only the removal of does can do so” (21). After using death as a call to action, the prescribed remedy is more death, with the only thing explicitly distinguishing between the two is that one is a problem and the other a solution. The report genre, being the preferred instrument of the research scientist, makes the detached ethos of the document seem natural. But genre, tone, and ethos in this rhetorical situation are flexible. They represent choices made by rhetors, and the ethos resulting from these choices is at odds with the very “citizen” concerns it tried to allay: the concern about mass slaughter of animals that to that point had been seen to need careful cultivation.

The report’s ethos separates itself even more clearly from “citizens” by claiming superior knowledge and the ability to teach them what they did not know. It identifies a lack of “public understanding” as a primary driver of deer irruptions:

More important than deer or deer range is public understanding. There is no doubt in our minds that the prevailing failure of most states to handle deer irruptions decisively and wisely is that our educational system does not teach citizens how animals and plants live together in a competitive-cooperative system. (22)

Four remedies to this problem are proposed: an “educational film,” presumably the above-mentioned *Starvation Stalks the Deer* then in process; an “educational bulletin;” a “system of fenced exclosures where the public can *see* the difference between overbrowsed and unbrowsed deer range;” and “an historical review of irruptive deer herds in other states,” such as the one Leopold himself had written (22).

The concept of rhetorical scarcity can help us understand the elision of emotional responses and the denigration of citizen knowledge in the Citizens’ Deer Committee

report. Through Leopold's choice of genre, tone and content, the report implicitly defined scientific understanding as the absolutely scarce resource that it was. To this extent rhetorical scarcity seems justified, even necessary, in handling complex ecological issues. But rhetorical and ethical problems arise when absolute scarcity of a given perspective is used to confer absolute value in public debate, particularly when the resulting exclusion is masked by superficial gestures toward the "citizen" perspectives being ignored. The Citizens' Deer Committee, through its name and its makeup, attempted to exude the ethos of the everyday person, but its choice of genre and rationalistic tone actually put forth the ethos of the downstate expert coldly examining conditions in a given environment, rather than living creatures dwelling in their home places.

The Citizens' Deer Committee Report could have called upon the ethos of another of its members, rather than Leopold's. That member was Joyce Larkin, a newspaper editor from Vilas county, the epicenter of resistance to Leopold's recommendations. Though she had since come around to Leopold's views on deer management, her readers knew that she had been highly skeptical of William Feeney's work, the conclusions of which the Citizens' committee was ostensibly called into upon to check, and that she, unlike Leopold, was an insider, a local (Flader 185). Where Leopold showed up to public Committee meetings armed with a slideshow of dead deer, Larkin presented histories of overhunting and the damage it had done to the local tourist industry, a prime concern of northerners (Flader 185). Her rhetorical strategy, she would eventually explain to Leopold, was "to find some point of agreement and then build one's case from there" (Flader 191). But Leopold valued scientific objectivism above all else, and the Committee's primary publication – its report – reflected this in its ethos.

With regard to the natural resources at stake, the report defined the value of the deer herd and the forest in relative terms, but locals, as Larkin knew, saw it as an absolutely scarce resource. Vilas county residents saw a flourishing herd they had worked hard to increase, which drew tourists to their stores and inns, but Leopold saw a badly damaged forest and a disastrous future decline in both trees and deer. As Flader has shown, most of the hunting and conservationist public was not prepared to accept Leopold's ecological insights about the connections between deer populations and forest health (168-72). In this environment, the zero-sum game of scientific over emotional understanding proved to be disastrously ineffective in rhetorical and political terms, as the emotions that hunters and conservationists had been told to ignore poured forth in reaction to the unprecedented slaughter of the 1943 deer season.

Techniques of rhetorical scarcity are more starkly seen in "Deer Irruptions," which describes the increasing national presence of irruptive herds. "Deer Irruptions" was published with the Citizens' Deer Committee report in the August 1943 edition of the *Wisconsin Conservation Bulletin*. Even more than the Citizens' Deer Committee report, it bears the marks of the scientific paper, discussed in Chapter 3: headings and subheadings, or what Gross, Harmon, and Reidy call a "finding system;" extensive citations and bibliography; attention to objects over actions, reflected in a preference for passive voice; and minutely detailed charts. Much of this contributes to the report's clarity – particularly the charts and finding system – and adds to the author's ethos in much the same way that a doctor's lab coat communicates competence and inspires trust.

But again we find a coldness that belies the deer debate's underlying pathos. In support of his thesis that culling the deer herd would help to sustain a healthier forest,

Leopold cites a University of Michigan experiment on an enclosed deer range. When the kept herd began to irrupt – that is, to exceed the carrying capacity of its enclosed range – “[t]he herd was immediately shot down to 75 head [from 160], and later to 50 head, and is now being held at the 50 level by annual removals. The evidence of overbrowsing has disappeared. The reduced herd is in equilibrium with its range” (“Deer Irruptions” 3). My point is not that Leopold erred in an ethical sense by speaking in support of an experiment in which enclosed animals were allowed to breed until their limited range required that they be shot,⁵⁹ but that he erred rhetorically in thinking such cold, rationalistic examples would bring a skeptical public worried about the mass slaughter of deer closer to his position.

In speaking of “cold rationalism” as a form of rhetorical scarcity I am drawing upon Sharon Crowley’s discussion of the way the liberal rhetorical tradition privileges “reason” to the exclusion of other ways of knowing. According to Crowley, the primary “shortcoming” of this way of thinking – one that speaks directly to Leopold’s arguments – is that “it takes understanding as its primary goal, and because it privileges understanding it can elide the possibility that audiences who grasp a rhetor’s message perfectly well may nevertheless resist it” (Crowley 36). Leopold defined the repeated inability of states to deal “decisively and wisely” with their deer irruptions as a problem of “public understanding,” the solution to which was education. While there can be little doubt that more ecological education would serve the public good, drawing a straight line through a lack of understanding, improved education, and the solving of complex ecological-societal problems was and remains, at best, an incomplete account of public rhetoric. It ignores belief, faith, emotion, and other warrants that guide much if not most

human decision-making. Crowley is clear on her position regarding non-logical warrants: “While persuasion can of course be effected by means of reasoned argument, I posit that ideology, fantasy, and emotion are primary motivators of belief and action” (59).

Considering the positive values of rationalism, however, Crowley notes that the privileging of reason is seen by many as a path toward tolerance. After all, a commitment to reason is also a commitment to openness to better-reasoned arguments or to new evidence. But, she argues, “liberal tolerance must be purchased by means of an exclusionary move. [...] To put the point bluntly, liberal pluralism harbors the hope that difference can be erased if only everyone will just be reasonable – which means something like ‘think as we do’” (40-41). Reaching back to Ciceronian rhetoric, Crowley argues that “rhetorical effect is achieved by means of affect: the beliefs and behavior of audiences are altered not only by the provision of proofs but by establishment of ethical, evaluative, and emotional climates in which such changes can occur” (58). The rationalistic “climate” Leopold played a large part in creating excluded the very terms in which much of his audience thought of Wisconsin’s deer.

“The Excess Deer Problem,” Leopold’s *Audubon* article on irruptions, offered him the chance to connect with a broader audience on a deeper level. The content of the article is clearly drawn from the longer and more detailed “Deer Irruptions,” but the language in “Excess” is less technical and the explanations of ecological problems more concise. In a major stylistic difference – though it is unclear whether this was the result of a choice made by Leopold – the article’s title sits at mid-page beneath a large picture of a doe staring directly at the viewer while licking a frail-looking fawn (See Image 3). It is impossible to say how much the large and diverse audience of *Audubon* would have

known about deer irruptions upon encountering Leopold's article, but by his own reckoning most people, including conservation scientists and other workers, were

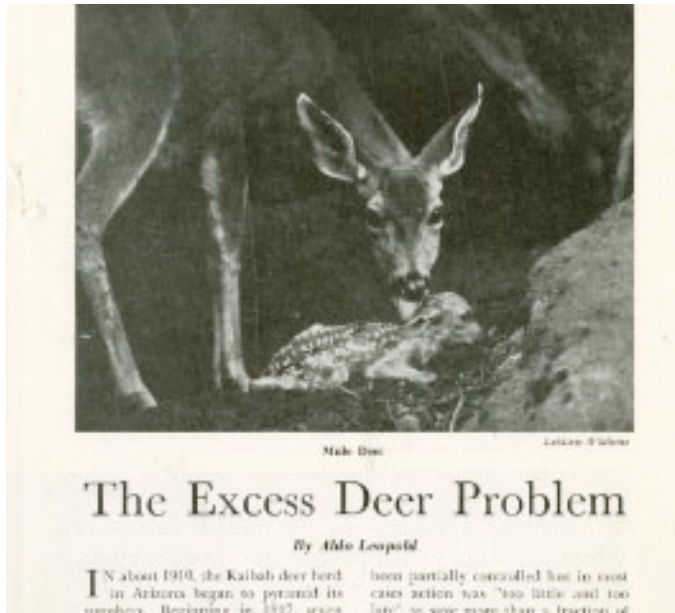


Image 3: The Excess Deer Problem

unfamiliar with the problem. It is likely, then, that the photograph would have evoked sympathy for does and fawns dying of starvation. Yet the pathos is conflicted, because Leopold's article portrays deer not as sympathetic figures to be saved, but as enemies to be shot in large numbers. In this and the other publications reviewed above, the entity to be saved is the forest.

And here lies a major rhetorical stumbling block: the entire issue had been framed as a deer problem, perhaps because the proposed actions were actions upon deer, but Leopold and those who agreed with him were fighting for the forest.

In these three writings Leopold not only failed to allay the fears of a hunting public that had come to see itself as caretaker to the deer herd, but he gave them every reason to believe that he was not acting in the herd's interest. He created an ethos of distanced rationalism through his choice of genre, his emotionless descriptions of dead and dying animals, and his understated concern for a living entity – the forest – unlikely to evoke sympathy in the hunting public whose favor he courted.

The concept of rhetorical scarcity helps us to see, however, that Leopold's ethos represents more than just a failure to connect. As has been noted throughout this dissertation, an ethos is not simply the construction of an author or authors, but also a reflection of the values of a community. Leopold drew boundaries around the scarce and therefore valuable resource of a scientific viewpoint, and those boundaries conformed to the contours of his own ethos. In a place like Vilas county, rhetorical scarcity driven by the power of Leopold's ethos turned a minority view without democratic currency into a scarce resource with institutional currency. Conversely, it turned majority opinion into a resource so common as to not be valuable. This is the danger of techniques of scarcity in democratic deliberation: expert opinions, by virtue of being scarce, become overvalued, while common popular opinion becomes undervalued. The conditions created in such a situation, as we will see, sow the seeds of resentment not just toward undemocratic policies, but toward the expert ethos generally, stirring the culture of anti-intellectualism that still baffles and confounds leading environmentalists.

Disseminating Rationalism: Leopold's Ethos in the Wisconsin Press

At this point in his career, as a professor at the state's largest university and a prominent voice in local and national conservation politics, Leopold was a well known public figure in Wisconsin. One rhetorical consequence of his prominence was that he was not alone in constructing his ethos. For the most part, when Leopold was mentioned in the mainstream Wisconsin press in the lead-up to the 1943 deer season it was in positive, even glowing terms, and the newspapers seem to have been solidly behind the idea of an antlerless season.⁶⁰ Burnishing the reputation of Leopold and the Citizens' Deer Committee in February, a month before its publicized trek into overbrowsed deer yards, an article reprinted across multiple papers said that the report due from the Committee

“promises to be unbiased and uncolored” (“Starving Deer”). Regarding opposition to antlerless seasons, the article says, “Here in Wisconsin, most citizens favor the one-buck law and oppose the killing of does,” but that “[r]ight now, it appears that opposition to control of the deer herd is based on sentiment. And it is expected this opposition will disappear when it is known that proper control measures are about to be exercised” (“Starving Deer”). What is implicit in Leopold’s rationalistic ethos is made explicit here: reasoning tinged with emotion requires a cure, and that cure is knowledge gathered by experts.

Leopold received able, supportive cover from two editorials, one before and one immediately after the Commission’s vote to institute consecutive seasons on bucks and antlerless deer. Both are pleas for scientific problem-solving and a movement away from non-expert knowledge. The first, titled “Real Conservation,” supports the antlerless season by emphasizing the need for and inevitability of change. The anonymous author quotes a speech given by Conservation Commission Chairman Virgil Dickensen: “I feel positive in my own mind,” Dickensen is reported to have said, “that some of the [deer] propagation programs that we have instituted in Wisconsin will be obsolete in the very near future and that the program of conservation will come under three distinct heads: game management, fish management and forestry management.” Leopold, recently appointed to the Commission by the governor, is offered alongside Dickensen as the face of positive change, and his public ethos is given a supportive boost:

Dr. Aldo Leopold of the university should be a tower of strength in the advance toward a more scientific, less rule-of-thumb program, and evidently Dickensen supports his effort to replace present methods with

more careful ones, based on a broad program of research in which all elements in the conservation of wild life – forests as well as game and fish – may be combined. Then we shall be getting somewhere. (“Real Conservation”)

A second editorial, titled “Failing Trust,” uses the commonplace of troops gone off to war as a prod to the public to act in the long-term interest of the deer herd. Appearing shortly after the Commission’s vote on the 1943 season, this commonplace also serves as a powerful disavowal of the decision to implement an open season rather than a strictly antlerless one. It does not mention Leopold by name, and even though it rebukes the Commission’s vote, it holds the Citizen’s Deer Committee in the highest esteem. It begins with the story of “a turret gunner” flying “his first mission” who tends to his crew and puts out a fire on their plane while successfully fighting off hostile German aircraft. “On the same day in Madison,” the author says,

the citizen’s deer committee met, and, carefully and conscientiously, offered a program which they believe would not only save Wisconsin’s deer herd, but would improve it.

That committee was thinking about those Marines in the jungle, those boys in tanks and those men in planes taking their lives in the battle against dictatorship and slavery for the common man. The decision it offered took courage, for it was a momentous one.

With soldiers in combat and embattled committee members established as the editorial’s moral center, the Conservation Commission is introduced as their cowardly opposites: “Instead of attacking the deer problem, the commissioners ran away.” The author goes on

to predict that the soldiers fortunate enough to come home would expect a deer herd as robust as the one they had left, but when they returned to find the “crippled up, warty, mangy and diseased animals” that were sure to result from the Commission’s decisions, they would rightly ask what happened. “The commissioners will reply,” the author says, “explaining that their experts told them what must be done but they were afraid to do it.”

To speak again of the effects of rhetorical scarcity on the democratic process, the model of citizenship embodied by Leopold’s ethos as it was created by him and by the press adheres to the principles of what environmental rhetorician Craig Waddell calls a “one-way Jeffersonian” model of public participation. This model holds that “the public has a right to participate in decisions that affect its well-being and/or that of the larger ecosystem, but that it should be empowered to do so, simply and unproblematically, through a one-way transfer of expert knowledge” (142). For Waddell, this represents a slight improvement over a “technocratic model” in which professional experts make decisions in a process completely insulated from public participation. Better but still problematic is an “interactive Jeffersonian” model where experts supply technical knowledge and a democratically interacting public contributes to decisions of governance by expressing its values and emotions. Most democratically, a “social constructionist” model breaks down “expert” versus “non-expert” distinctions through discourse in which all involved share their expertise, their values, and their emotions in the decision-making process (Waddell 141-43). Waddell’s ordering is ethical in the sense that it moves from least to most participatory, giving citizens fewer or more chances to inform decisions that affect them. But it is also rhetorical in the sense that leaders engaging in the more participatory forms of discourse can claim more credibility with their publics.

Leopold's control of the discourse surrounding the deer irruption crisis, supported by Wisconsin's conservation infrastructure and local papers, remains within the relatively un-democratic half of Waddell's continuum. Tactics of absolute rhetorical scarcity effectively squeezed out the views of "non-experts" even while claiming to represent them (as was the case with the Citizens' Deer Committee report), and made appeals to pathos unavailable in an emotionally charged debate. We cannot know whether those favoring an antlerless season would have had more rhetorical or ecological success if they had sought greater public participation or been more willing to engage appeals to emotion. But one cannot help to see the stark contrast between Leopold's clinical rationalism in framing the issue before the hunting season took place and the outpouring of emotional dissent in December of 1943, after the hunt. One editorial represented the views of northern hunters, showing their frustration over a perceived imbalance in who was allowed to contribute to the deer debate:

After two years of propaganda they brought about this experimental split buck-doe season and in eight days of relentless slaughter they undid all of the good work that has been done during the past 20 years. [...] Bungling such as this can not be excused and it is up to the people of the North to again make themselves heard so that nothing of this sort can again be possible in this state." ("Deer Slaughter")

The above reference to "propaganda" alongside a plea to northerners to "make themselves heard" suggests a deep dissatisfaction with the one-way Jeffersonian approach to public participation that seems to have characterized the deer debate. The reaction shows an underlying awareness of rhetorical tactics of scarcity that devalued the

primary rhetorical resources on offer from those opposed to an antlerless season: non-professional knowledge of the natural world and an emotional connection to the issues in question. Leopold's deer irruption ethos, unlike the ethos created in nearly all the other public writings in the course of his career, offered no participatory roles for his audience.

Beyond Scarcity, Beyond Rationalism: Constructing Ethos through Narratives of Citizenship

The rationalistic, one-way-Jeffersonian approach to democratic citizenship embodied in Leopold's deer irruption ethos is notable in his later career partly because it differs so markedly from the one presented in his other writings of the same time (and earlier, as shown in the previous chapter). Four essays from the early 1940s show his reliance upon a variety of rhetorical appeals, including appeals to emotion, and his commitment to models of citizenship that fall on the more participatory side of Waddell's continuum. This, of course, is the Leopold best known to us because it is the Leopold represented in *A Sand County Almanac*. In a recent article applying the *Almanac*'s "Land Ethic" to urban development, Gesa Kirsch identifies Leopold with "a love, indeed a passion" for one's lived environment and explores how such feelings can spur citizen engagement (Kirsch 76). A comparison between two very different *ethoi* Leopold presented in the last decade of his life – the narrowly rationalistic scientist of the deer irruption writings, and the passionate nature lover recognized by Kirsch – reveals the rhetorical techniques that contribute to each, giving us a better understanding not only of Leopold, but of the kinds of *ethoi* we aim to construct in modern environmental debates and the means of constructing them.

Before they were printed in slightly revised form in *A Sand County Almanac*, two short essays, "Home Range" and "Pines Above the Snow," appeared in the *Wisconsin*

Conservation Bulletin in 1943, the same year and venue as two of the above-reviewed deer irruption texts.⁶¹ But these essays express a deep-seated care for non-human life and an openness to non-expert ways of knowing the natural world that are conspicuously absent from Leopold's deer irruption ethos. "Pines Above the Snow" casts the pines on his Sauk County sand farm as well-loved fellow inhabitants whose "small-talk and neighborhood gossip" tells him what has occurred during his absences in town (83). Such "chatter" might point to a pine weevil infestation (84), to a buck who has used the trees to rub the velvety coating off his antlers (84-5), or to an "affinity" for growing beside dewberries (86). In Leopold's ethos there is a sense of pathos. He is open to communications from non-human beings because of an emotional bond with them; in his trees he sees living beings with histories, futures, and preferences.

The second essay, "Home Range," similarly constructs Leopold as a sensitive naturalist landowner. It comprises several first-person vignettes that describe his methods for deducing the range of various animals on his farm. By following tracks, examining the contents of droppings, and making inferences, Leopold calculates the range of five deer on his property to be one mile, while grouse covered a half-mile radius encircling a downed oak (for cover), and a stand of cedar (for food) (24). These are the investigations of the nature-lover, not the professional inquiries of the scientific expert. "Science," says Leopold, "knows little about the home ranges of birds and mammals at various seasons," while "[e]very good observer has a chance to discover new facts about home range" (24). The ethos put forth in these short essays is wise to the limits of science, and welcomes, like the ethos of the *North Central States* report, less officially recognized ways of knowing the natural world.

“Wildlife in American Culture,” published in the January 1943 issue of the *Journal of Wildlife Management* and reprinted in *A Sand County Almanac*, also tries to persuade readers to perform their own investigations but adds a comparative element to show their value. The essay asks, What role do animals and plants in the wild play in shaping American culture? At their best, interactions between humans and wildlife remind us of the “soil-plant-animal food chain” on which civilization is built (1). At their worst, these interactions, increasingly mediated by technology, wrongly convince us of our separation from and dominion over nature (1-2). Leopold illustrates his points with character sketches. The first is a hypothetical, over-technologized duck hunter:

A put-put has brought him to the blind without exertion. Canned heat stands by to warm him in case of a chilling wind. He talks to the passing flocks on a factory caller, in what he hopes are seductive tones; home lessons from a phonograph record have taught him how. The decoys work, despite the caller; a flock circles in. It must be shot at before it circles twice, for the marsh bristles with other sportsmen, similarly accoutred, who might shoot first. (2)

Leopold’s biting, ironic portrait shows a hunter with no sense of craft interested only in killing to the legal limit who neither absorbs nor creates cultural value. He is a citizen only in the most formal sense: a human being taking the use of his rights within the law, and the implied contrast to Leopold’s own self-in-nature serves as a subtly placed brick in the wall of Leopold’s ethos.

In stark contrast to the above caricature are those who engage in what Leopold calls “wildlife research sports,” “a totally new form of sport which does not destroy

wildlife” and “uses gadgets without being used by them” (5). Leopold offers the widely published amateur ornithologist Margaret Morse Nice as an exemplary practitioner to show the possibility of non-professional researchers “outstrip[ping] their professional colleagues” (5). In the version of the essay published in the *Almanac*, Leopold notes that Nice “studied song sparrows in her back yard” and had “become a world-authority on bird behavior, and has out-thought and outworked many a professional student of social organization in birds” (185). Nice, along with two other amateur researchers added in the *Almanac* essay, enlarge Leopold’s ethos to include the values of conservationists who are not necessarily professionals but are still dedicated to investigating the natural world.

We can view the tactics involved in enlarging his ethos as a kind of opposite to rhetorical scarcity. Where Leopold used his ethos to tighten the bounds of acceptable discourse in the deer debates, in these other essays he expands them to include more voices, not fewer. Noting the value of comparing such texts, Applegarth says, “The rhetorical richness that is rhetorical scarcity’s counterpoint becomes more evident in comparison, as do the long-term, accumulated effects of individual writers whose decisions can ultimately narrow or expand” discursive possibilities (“Rhetorical Scarcity” 477). Leopold presents a particularly interesting study because he used both tactics in different situations in the same time period. The long-term effects of the expanded ethos did not result in any direct way in policy changes, but have helped to bring about a multi-generational conversation about humans, nature, and discourse that is ongoing. The effects of the ethos created through rhetorical scarcity succeeded in passing policy in the short term, but helped to erode support for those policies in the long term.

Leopold's loudest detractor was a Chamber of Commerce publicity director from northern Wisconsin named Roy Jorgensen (Meine 463). Jorgensen edited a monthly newsletter titled *Save Wisconsin's Deer* that routinely singled out Leopold as an aloof Madison expert who didn't understand the northern country. In the wake of the 1943 hunting season, Jorgensen twisted a comment Leopold had made regarding the difficulty of estimating the precise size of the state's deer herd: "[T]he infamous and bloody 1943 deer slaughter," said Jorgensen, "was sponsored by one of the commission members, Mr. Aldo Leopold, who admitted in writing that the figures he used were PURE GUESSWORK" (qtd in Meine 463). On another occasion Jorgensen said a particular point made by Leopold had "that touch of 'Leopoldian egotism' and insinuates that he, the great Aldo, places his knowledge above that of any Wisconsin citizen" (qtd in Meine 469). A critic as strident as Jorgensen may not have been appeased by the less rationalistic ethos of "Home Range," "Pines Above the Snow," and "Wilderness in American Culture," but there can be little doubt that "Deer Irruptions," "The Excess Deer Problem," and the Citizens' Deer Committee's majority opinion provided fertile ground for him to flourish in.

These two sets of writings differ dramatically in their assumptions about the roles of professional and non-professional natural-world citizens, as I have been arguing, but also, as is certainly clear by now, in the rhetorical techniques that are the brick and mortar of their different *ethoi*. Where the deer irruption texts offer scientific reporting, the other essays offer narratives, with plots and characters, that communicate values. As noted above, Sharon Crowley has described how rationalism is ineffective at changing beliefs.

Story, she contends, can be a better tool, and “is, perhaps, the most efficient means of garnering attention” (197).

Communication scholar Walter Fisher considers narrative fundamental to a certain kind of worldview, and distinguishes between a “rational-world paradigm” and a “narrative paradigm” of human thought and discourse. Fisher’s rational-world paradigm is equivalent to Crowley’s liberal rationalism: highly valued by Western enlightenment standards – indeed the basis for those standards – in the tradition of Bacon, Descartes, and Locke.⁶² It assumes that “humans are essentially rational beings” and takes reasoned argument as “*the* means of being human” (59-60). Fisher’s narrative paradigm, on the other hand, assumes that “[h]umans are essentially storytellers” and that “[t]he production and practice of good reasons are ruled by matters of history, biography, culture, and character” (64). Because rationalism is honed through academic and professional training it is easily infected by elitism. But since all people understand and thrive upon stories, a “narrative rationality” has the potential to be more democratic (66-7). Fisher’s point is not that modes of thinking traditionally associated with rationalism, such as science and formal logic, should be subordinated to narrative rationality, but that narrative has been historically constructed as inferior and should be seen as an equally valid method of thinking and communicating.

Framed in terms of rhetorical scarcity, we see that the narrative-based ethos of Leopold’s *Almanac* writings is far more accommodating and welcoming than the rationalistic, logocentric approach of the deer irruption texts. *Everyone* understands and can place themselves within narrative, while only a select, trained few can inhabit the highly trained ethos of the professional scientist. Where rationalistic scarcity can turn

democratic debate on its head by converting minority opinions into valuable currency against less valued majorities, narratives can serve as invitations to participate in shared reasoning.

Leopold's ethos, as expressed in his narrative-driven writings makes room for – indeed demands – a kind of democratic husbandry: a mass commitment to land health expressed in research, physical labor, and, decades ahead of his time, an early version of what we would now call “green consumerism,” which is recommended in the essay “Land-Use and Democracy.” Published in *Audubon* magazine in fall 1942, just as Leopold was beginning work on the Citizens' Deer Committee and the Natural Resources Committee, “Land Use and Democracy” does not rely on character-driven narrative in the manner of the above articles just reviewed, but applies narrative rationality by placing Leopold and readers in a series of increasingly complex scenarios in which their role as consumers supports bad land use. These brief ethical exercises offer a useful contrast to the deer irruption texts. Here, he invites readers to inhabit the ethos he is creating, acknowledging an equality of stature and complicity in an unhealthy system.

Leopold's ethical exercises increase in complexity as the essay progresses. One of the first asks, “Does one buy Christmas trees that should have been left to grow? How does one tell trees representing legitimate thinnings from trees representing exploitation and robbery? Both are for sale; neither is labeled. Could they be?” The next says, “Dairy X buys milk from steep eroding pastures, which spill floods on the neighbors, and ruin streams. It also buys milk from careful farmers, and mixes the two, so that conservation milk is indistinguishable from exploitation milk. What should the conscientious buyer do?” The final, most challenging scenario is this one:

Nearly all American wheat is the product of exploitation. Behind your breakfast toast is the burning strawstack, feeding the air with nitrogen belonging to the soil. Behind your birthday cake is the eroding Palouse, the over-wheated prairies, feeding the rivers with silt for army engineers to push around with dredge and shovel, at your expense; for irrigation engineers to fill their dams with, at the expense of the future. Behind each loaf of (inedible) baker's bread is the "ever normal" granary, the roar of the combine, the swish of the gang-plow, ravaging the land they were built to feed, because it is cheaper to raise wheat by exploitation than by honest farming. It wouldn't be cheaper if exploitation wheat lacked a market. You are the market, but transportation has robbed you of all power to discriminate. If you want conservation wheat, you will have to raise it yourself. (262)

Leopold's point, passionately made, is that if a productive nation is to "use its land decently" (259), everyone must be in on the job. Since economic interests rule the day in American society, an ecologically informed consumerism must be part of the answer. It is, as the essay's title suggests, part of the system of democracy. "These," he says, "are samples of the easy, the possible, the difficult, and the insoluble realities of conservation, presented as problems for the citizen" (262).

Leopold's building frustration, clear in the above passage, comes largely from the failure of large institutions like governments and agribusinesses (and their many overlaps) to move in any meaningful way toward sustainable land use, and so, as he had done at other points in his career, he sought to inform individual citizens of their roles in

conservationism. In “Land-Use and Democracy” he is straightforward about the limits of government involvement in responding to ecological problems. He lists the things that government can and cannot do: it can run game farms and fish hatcheries and reforestation programs (262). It cannot “raise crops, maintain small scattered structures, or bring to bear on small local matters that combination of solicitude, foresight, and skill which we call husbandry,” because husbandry “knows no season of cessation, and for the most part is paid for in love, not dollars” (262). Citizens expecting government to act in their stead in conservation matters are participating in a “hallucination” (262). But here we find the trail of a strange contradiction. While he extolled citizen involvement by arguing that government is limited in its abilities as a conservationist agent, in the deer irruption debates he was working through government as the *only possible* agent.

In comparing the oppositional *ethoi* that Leopold deployed in the 1940s, we see two contrasting, if not contradictory, public communication styles, and two visions of democratic citizenship. The texts embedded in the deer irruption crisis relied on techniques of rhetorical scarcity to create a tightly bounded ethos of scientific rationality that implied a one-way Jeffersonian approach to citizenship. In this approach, experts gather evidence, which they communicate to “non-expert” citizens before making policy decisions. Such an approach, and the rhetorical techniques that support it, are ethically questionable because they leave high-stakes decisions in the hands of people who represent only a small fraction of those who will be affected by them. And they are rhetorically questionable because they are likely to create resentment towards the people and types of people who have claimed an outsized share of decision-making power. The latter set of texts reviewed above, however, rely on what Fisher calls a “narrative

paradigm” to create an ethos that invites democratic participation in decision-making and, ultimately, world-making. In these texts Leopold constructs himself as a fully human character who is alternately impassioned and angry, who recognizes the blinders that scientific training can impose and the value of alternative points of view.

But discursive entities, like *ethoi* and arguments, are always embedded in situations and cultures. One of the most influential cultural factors in the deer eruption debate remains unexamined. This chapter concludes with a closer look *the* major driver of scarcity in the lead-up to and aftermath of the 1943 hunting season: World War II and the discourses it engendered.

Scarcity in Context: War, Rationing, and Fear of a Domesticated Forest

Wisconsin’s deer irruption crisis played out within a larger scene of scarcity brought on by war, as we saw above in the “turret gunner” editorial supporting the antlerless season. In Kenneth Burke’s “dramatistic” system for analyzing situations and motives, the “scene” is the environmental container for an act performed by an agent (or agents) (*Grammar* 3). This section zooms outward to the larger scene containing the deer debates to reveal the degree to which scarcity resonated well beyond concerns for deer and forests, and shows how the ethos Leopold constructed in the deer irruption crisis retained the residue of the sportsman-citizen ethos examined in Chapter 2. Side-by-side press coverage of the deer irruption debates and the War shows that this ethos still enjoyed significant influence in war-time American culture.

Skimming Wisconsin’s newspapers from the early 1940s, one gets a sense of the comparative leanness of everyday life. There are reports of “a grave shortage of teachers,” (Wisconsin Press Association), of cuts in “[m]etal for new farm machinery” (“Farm War News”), and of the accelerated war-time depletion of state forests (Matson).

These various scarcities are contextualized by surrounding headlines of combat and casualties: “Seven of Bomber Crew Die in Crash,” “Mighty Nazi Horde Storming Gates of Kharkov,” and, above a picture of soldiers searching among rubble, “Hundreds Died in this Naples Post Office Blast.” It is not uncommon to see pictures of soldiers from Wisconsin who have been wounded, killed, or singled out for honors. Thus, scarcity extends even to human life.

Most notable in relation to the deer irruption are articles about food rationing. In the March 12, 1943 edition of the *Rhineland Daily News*, on the same page as an article about the Citizens’ Deer Committee’s planned outing to overbrowsed deer yards later that month, are lists of rationed and unrationed foods and their allotted portions. Rationed meats included “[a]ll fresh, frozen, smoked, and cured beef, veal, lamb, and pork,” while butter, margarine, shortening, lard, and many cheeses were also rationed (“Rationed”). Yet nowhere – in this article or any other – is any connection made between the surplus of deer and the dearth of these foods.

I argued above that Leopold saw deer and forests as natural resources whose values were relative to each other – that is, as relatively scarce resources – and that a considerable percentage of Leopold’s Wisconsin audience saw deer as a resource with absolute value for which nothing could be substituted. I did not, as I wish to do here, distinguish between *natural* and *cultural* resources.⁶³ Within the context of war-time scarcity, deer was seen as an absolutely scarce cultural resource, regardless of the size of the herd. Had they been seen more thoroughly as relatively scarce natural resources, deer would have been substitutable for rationed beef, pork, and lamb, particularly given the

shortage of one and the surplus of the other. But even for Leopold, the relativity of deer's value was comparable only to forests, not to other kinds of food.

Reading the press's coverage of the deer debates, it becomes clear that an active minority saw the overabundance of deer as a legitimate food source. Not only was there no suggestion in the press that such substitution might be helpful, but considerable invective was directed against anyone viewing the 1943 open season as a chance to secure more food for themselves and their families. An article representing the views of several state newspaper editors says,

For the most part, the season met with the favor of only the "meat hunters" of the state, and there were thousands of new ones this year. [...] Whole families took out licenses in the hope of getting sufficient meat to last them all winter, and in numerous instances they succeeded. Wives, sons and daughters had licenses, but it's a pretty fair bet that the fathers did most of the successful shooting. ("What State's Editors Say")

Another article in the immediate aftermath of the 1943 hunting season says,

There were many parties of good sportsmen but by and large the invasion was made up of people whose prime purpose was to get meat legally or illegally in any manner as long as they got it. Whole families came and each member was in possession of a deer tag to attach to a deer after some member of the family had killed it. ("Deer Slaughter")

In these passages, anxieties about deer being seen as meat give way to deeper anxieties about potential overlaps between the masculine sphere of the forest and the feminine domestic sphere of the household. In a manner strikingly similar to Leopold's *Pine Cone*

writings of the 1910s and '20s, the above passages show that the hunting ground was a powerful cultural resource of masculinity threatened by the feminized practice of subsistence hunting.

Any resource for the production of masculinity would have been seen as scarce in a culture confronted daily with the deaths of its young men. The hunting grounds, open for less than two weeks of the entire year, became a space in which boys and men who were either too young or too old to go to war could engage in the manly act of killing. However, while bucks conferred masculinity upon their killers, Leopold was urging Wisconsin's hunters to shoot female deer – does – and was doing so on rationalistic grounds. One newspaper article printed the reactions of men who had been persuaded to do what Leopold suggested. One “vowed never to shoot a doe or fawn again.” The article continues:

“It was pitiful,” one experienced huntsman said. “My first shot hit her and knocked her down. I was sorry I shot. Her eyes looked at me pleadingly and it tore my heart to put her out of her misery.”

Another hunter was so sick that he couldn't eat. (“County Strewn with Blood”)

These men, it seems, were flooded with the very emotions that Leopold's rationalism sought to banish when faced with the cultural reality of a dying doe. The value of male deer as an absolutely scarce cultural resource, one for which does could not substitute, comes through in the “hunstman's” line of reasoning. A shot buck would have behaved in the same way his doe did; the difference resides wholly in the reaction of the shooter who considers the male deer a worthy adversary and the female an object of pity.

These rich cultural resonances help to emphasize the incompleteness of Leopold's scientific ethos and the limits of rhetorical scarcity meant to corral non-scientific perspectives. Images in the popular press of men hunting with their "whole families" were placed alongside uncommonly large tallies of dead deer, together illustrating the severe abnormality of the 1943 hunting season. Any hint that deer might be seen as a source of food seems to have been seen as a debasement of their "true" value. The great wrong perpetrated by the meat hunters, then, was mistaking a cultural resource for a natural resource. The purpose of the former was to produce and maintain American masculinity. As a natural resource, however, the deer herd's value was relative to other meat, and its purpose was linked to the maintenance of the household. The emotion attached to the deer irruption crisis was not only connected with concern for deer as living creatures. It was deeply connected to cultural values of masculinity that had achieved their own absolute scarcity in a time of war.

In the deer irruption texts, Leopold's didactic ethos only moved in one direction, to again echo Waddell. Rather than creating a space for the raw emotions brought out by the topic of killing does and fawns in unprecedented numbers, Leopold proceeded as if the rhetorical side of the deer irruption crisis was purely one of evidence, believing that once the hunting public was given a set of ecological facts it would accept a reversal of the state's approach to managing its deer herd. But this approach, and this ethos, as we have seen, differed markedly from those put forward in the Wisconsin writings that were later published in *A Sand County Almanac*. In these, Leopold retains his commitment to scientific reasoning while also valuing the knowledge of non-professional naturalists, and

makes the argument that everyday research and ecologically informed consumerism are essential practices for natural-world citizenship.

Many factors influenced the creation of these contrasting *ethoi*. A primary driver of Leopold's narrow ethos in the deer irruption texts was their foundational genre, the scientific report, which leaves little room for the kind of passion and frustration Leopold expresses in "Land Use and Democracy," or for the leisurely narratives of his *Sand County Almanac* essays. But even in the midst of the deer irruption crisis, Leopold had the freedom to make rhetorical choices. There was no material or cultural imperative forcing his public communications into the form of a scientific report. He even had access to a very different brand of public communication, represented in the person of Joyce Larkin, the Vilas County newspaper editor who understood the mindset of north-Wisconsin contrarians far better than he did. But Leopold overvalued the power of scientific discourse – overvalued, in essence, his own rationalistic ethos – and undervalued the non-scientific ways of knowing nature and culture that refused to be subordinated to the objective knowledge of experts.

Also influencing Wisconsin's deer irruption debates were the material conditions and their attendant scarcities pressing in from all directions: scarcity of time imposed by nature and the legislative calendar, scarcity of healthy forests, of food and other resources, and even of men in a time of war. Temporal and material scarcities, as we have seen, encouraged the rhetorical scarcities used by Leopold and his supporters, while cultural scarcity of masculinity lent the debates a vexed urgency that remained unexpressed but hung darkly over everything. The *Sand County Almanac* writings, on the other hand, responded to powerful but slowly roiling crises of culture that required much

more than passage of specific laws, but, for being amorphous and large, afforded a less urgent approach.

Modern debates about climate change exhibit unsettling similarities to the much more localized deer irruption crisis. Like the Leopold of the deer debates, twenty-first-century climate activists find themselves armed with scientific evidence that fails to connect with a wary public. Also like Leopold, climate scientists and activists too often overvalue logocentric rationalism or fail to adopt Joyce Larkin's Rogerian strategy of starting with common ground and building toward more challenging messages. A meta-study published in an *Environmental Communication* special issue on climate change and media, in June 2014, and cited in this dissertation's introduction bears quoting again: it shows that "descriptions of the climate and its changes are primarily produced by science, in a way too complex to understand for many people" (Schäfer and Schlichting 143). While there can be no doubt of the value of scientific discovery, the above study of the deer irruption crisis shows the limits of scientific argument in the public sphere.

The lesson of the deer irruption crisis is a familiar one to environmental rhetoricians: environmental crises demanding action always have the potential to become rhetorical and political crises, and publics must be met on their own terms and not simply told by experts what is best. The framework of rhetorical scarcity worked out in this chapter alerts us to undemocratic communication strategies that devalue majority opinions, and creates conceptual links between shortages of material, cultural, and discursive resources. In the midst of a crisis, it is tempting to communicate what we see as straightforward rational truths to hasten action, because time itself is an absolutely scarce resource. It turns out, however, that such truths do not hasten action, or that if they

do, their cost is often a layer of resentment that separates large, democratically powerful publics, and therefore legislators and other power brokers, from subject experts.

Rhetorical scarcity, then, is a self-defeating strategy, particularly in terms of the coordinated societal action that global climate change makes necessary. There is no single, individual ethos that can guard against rhetorical scarcity tactics, but local, national, and global environmental movements must be collectively aware of their tendency to invoke them, and invoke more democratic appeals instead.

Chapter 5

The Intimate Polis: Place, Ethos, and Domesticity at the Leopold Shack

By the mid-1930s, Aldo, Estella, and their two eldest sons, Starker and Luna, had taken up archery and bow-hunting. They had a cabin in the Ozarks but not a base camp from which to hunt locally in Wisconsin. “Aldo wanted a place outside of [Madison] where the family could spend time together,” says Meine. “The need for an archery camp clinched the idea” (340). In January of 1935 Leopold purchased eighty acres of Sauk County land along the Wisconsin River, and in subsequent years added another forty. The only structure on the land was a tiny house that had served as a cow stable and chicken coop and was piled high inside with the manure of both. By March 7th of the next year they had this structure, which would soon be christened “The Shack,” in good enough shape to spend the first of many family weekends there. They would continue to go there regularly until, and even after, Leopold’s death in 1948.

Two of Leopold’s essays reveal other, more public-spirited motives for acquiring and spending time on the sand country land,⁶⁴ one written just before he purchased it, the other published a mere five months before he died. The first, “The Conservation Ethic,” argues that a strong personal and social code – an ethic – of private land management was needed to supplement the necessary but ultimately inadequate conservationist tools of legislation, public land-ownership, and raw self-interest. The second, “The Ecological Conscience,” extends this argument and speaks more specifically of individual landowners and land use. “We have not asked the citizen to assume any real responsibility,” Leopold says.

We have told him that if he will vote right, obey the law, join some organizations, and practice what conservation is profitable on his own land, that everything will be lovely; the government will do the rest. [...] [But n]o important change in human conduct is ever accomplished without an internal change in our intellectual emphases, our loyalties, our affections, and our convictions.” (1)

An institutionally employed arbiter of conservation regulations all his life, Leopold was now, even more forcefully than he had before, arguing for its limits. On his own land he could put these arguments into action.

Following the Leopold family’s first shack weekend in March of 1936, in April, during the University of Wisconsin’s spring break, they planted two thousand pine trees and dozens of shrubs, hardly any of which survived that particularly dry summer (Meine 364-5). The family would repeat the work every year until Leopold’s death (and then, working without him, they continued the plantings). By 1946, after ten years, the Leopolds had planted more than thirty thousand trees and shrubs, greatly improving the appearance and health of the landscape. It was not uncommon for Aldo and Estella, if not several of the children, to spend nearly every weekend of a given year at the shack, or for Aldo’s students to spend time there as well.

The relation of the shack property to Leopold’s family history and to the two “bookend” articles show the private and public nature of this piece of land that has become inextricably tied to Aldo Leopold’s ethos and legacy. This chapter argues that Leopold’s sand country land has contributed powerfully to his ethos, but that the way it defines his ethos has changed significantly from the publication of *A Sand County*

Almanac to its current incarnation. When it was published it stood as Leopold's final attempt to plug the gap between public environmental regulation and private behavior with his own persuasive, guiding ethos. Now, in the hands of The Aldo Leopold Foundation, the most active and prominent keeper of Leopold's legacy, his ethos has become much more tightly associated with the private domestic sphere, shifting the "private" portion of Leopold's public-private balance away from isolated landowners and toward what I am calling the "citizen family."

Leopold is often placed in the tradition of lone wilderness wanderers like Henry David Thoreau and John Muir. H. Lewis Ulman, for example, says that the three sections of the *Almanac* construct Leopold consecutively as "the *hermit*", "the *wandering prophet*," and "the *teacher*" (66), and Killingsworth and Palmer emphasize his "mystical wanderings" on his property and around the United States (64). But the place with which he is now most closely associated was primarily a domestic space where he went to spend time with his wife and children. In his own lifetime, those who knew him were amazed, and perhaps envious, of the family dynamic that their time in the country seemed to create. Vivian Horn, Leopold's longtime secretary at the University of Wisconsin, said in an interview,

They loved going to the shack. I used to notice that frequently, the children preferred going to the shack to some other activity they had an opportunity to do over the weekend. Their family activity seemed to have more attraction. What was the secret? I didn't know, but it made for a happy and congenial family life. All I know was that this family seemed to

think it was a lot of fun to spend a vacation together doing the hardest kind of work. (Meine 375)

Perhaps because we have come to associate American nature writing with the solitary male figure, and perhaps because allusions to the domestic in *A Sand County Almanac* are subtle (though they are there, as is shown below), this side of Leopold has not been emphasized in scholarship.

The label of the “wilderness wanderer” is much more appropriately affixed to the persona Leopold cultivated as a young wildlife conservation activist in New Mexico. As we saw in Chapter 2, that ethos was rife with historical and personal contradictions. This chapter dwells not on contradictions, or what I have called the mismatch between Leopold’s physical self and rhetorical persona, but instead on the degree to which self and ethos fruitfully came together before his tragic and untimely death.

This chapter first analyzes Leopold’s ethos formation in *A Sand County Almanac*, drawing on rhetorical theories about the interaction of ethos and place to examine the role of Leopold’s land in his most enduring persona. It further leverages these theories to examine an earlier technical article of Leopold’s in which his sand country land is subtly defined as a publicly beneficial domestic space. Finally, it shows how Leopold’s ethos is currently constructed by the Aldo Leopold Foundation at their Legacy Center in Baraboo, Wisconsin. The chapter concludes by further considering the role of the private domestic sphere in environmental citizenship, and imagining how the Aldo Leopold Foundation might more fully integrate the history of Leopold’s connective, citizenly rhetorics into their representations of his ethos.

The Place of Ethos

H. Lewis Ulman and Scott Slovic have noted that Leopold's ethos differs across the three sections of *A Sand County Almanac* (titled "A Sand County Almanac," "Sketches Here and There," and "The Upshot") and Barbara Willard argues that Leopold uses place as an "epistemic" tool for creating knowledge in his audience, but no scholar of rhetoric has shown how the now iconic sand country land functions as a site of ethos formation. Further, while I agree with Ulman and Slovic that there are perceptible shifts in the book's ethos across its three sections, I believe that "A Sand County Almanac," the book's first section, constructs the text's essential ethos that is then expanded in parts two and three, and that the setting – the Leopold family's private land – is essential to this construction. This portion of my chapter briefly reprises the ways in which rhetorical scholars have theorized the relationship between ethos and place.

Rhetoricians have long been interested in this relationship. S. Michael Halloran, exploring Aristotle's definition of the term, has said that "[t]he most concrete meaning given for [ethos] in the Greek lexicon is 'a habitual gathering place,' and I suspect that it is upon this image of people gathering together in a public place, sharing experiences and ideas, that its meaning as character rests" (60). Referring to the work of Arthur B. Miller, Nedra Reynolds traces the etymological roots of ethos to its meaning as "the '*haunts or abodes* of animals'" as well as "'*the abodes of men,*'" and says that Aristotle saw an intrinsic link between ethos and the physical location of the *polis*, viewing political society as "the haunt where a person's character is formed" (328).

For these and other postmodern rhetorical theorists, the combination of constructed character and location, or "site," embedded in the meanings of ethos summons poststructuralist definitions of the self as "constituted rather than constituting,

connected rather than autonomous, discursive rather than transcendental” (Hekman 1099). In this sense, one’s ethos is developed in the abstract, “always already” defined spaces of one’s discourse communities and the values that define them. For an ethos like Leopold’s, or anyone else’s, to have power it must embody a set of characteristics that a given community holds as intrinsically important, as we have seen in previous chapters of this dissertation. Powerful *ethoi* do not spring up from the sheer self-will of their authors, but rather form as particularly salient examples of community priorities.

But rhetorical theorists have also made a point of differentiating the concept of ethos from the “constituted” poststructuralist subject. Marshall W. Alcorn seeks an understanding of ethos that sits between Aristotle’s “overly strong” view of a self “able to choose freely its own nature” and a poststructuralist “overly weak” view of a self that “offers no determined resistance to the discourses that assault it” (6). Alcorn’s position acknowledges both the agency and subjectivity of the self and of ethos – that is, both its power of self-definition and the limits of that power. He says that “rhetoric, much like strong experience itself, can use language to build self-structure. [...] The self is stable enough to resist change and changeable enough to admit to rhetorical manipulation but not so changeable as to constantly respond, chameleonlike, to each and every social force” (17). Susan Jarratt and Nedra Reynolds argue that the ancient Sophists help postmodern rhetoricians find this middle path: “Rather than focusing on the split between a genuine, fully formed character and its representation [as in Plato & Aristotle],” they claim, “sophistic rhetoric explains the process of character formation through learning to speak to the interests of the community” (44). As Risa Applegarth says, “ethos is positioned precisely in the space between public meanings and private selves” – it is

“simultaneously a spatial and a social concept” (“Genre” 49). With these insights in mind, we turn to Leopold’s ethos construction in *A Sand County Almanac*.

The Ethos of *A Sand County Almanac*

As the above theories of ethos assert, Leopold’s *Almanac* ethos is both a spatial and a social construction. It proceeds from the “haunt” of his sand country farm as well as from the discourse community of mid-twentieth century American conservation, succeeding in part because it stands as a particularly well crafted embodiment of conservationist values. As we have seen over the past three chapters, these values comprise historical, cultural, disciplinary, generic, and situational sources. They grow out of the long tradition of the sportsman-citizen: self-restrained, independent, and masculine, enamored of wildlife largely for the qualities required to hunt and kill it. They grow out of the diverse communities that make up the conservationist cause: farmers and hunters concerned with stewardship; conservation professionals employed by local, state, and federal agencies; and field researchers working for universities or other publicly funded institutions. And, because the *Almanac* first gained widespread popular success in the 1970s (Meine 526) and continues to enjoy it today, we can assume that Leopold’s ethos continues to embody a plurality of values present in the environmental movement’s more modern forms.

As Leopold’s former student Albert Hochbaum pointed out in the letters quoted at the beginning of this dissertation, the *Almanac* functions as something of a “self-portrait,” meaning that the author’s ethos is among the book’s most prominent features. What is the nature of this ethos, and how is it rooted in the *Sand County* of the book’s title?

The *Almanac*’s overarching ethos is that of the naturalist philosopher-teacher, humble in the face of nature but not in the presence of other people, and it is anchored in the setting of the book’s title: Leopold’s sand country land. In the “Sand County

Almanac” section that begins the book Leopold builds this ethos as his property’s husbandman, in the domestic sense of being the head of the human family that lives there but also the in agricultural sense of the tender of the land’s non-human tenants. In the book’s middle section, “Sketches Here and There,” he uses the accumulated authority of the husbandman and deepens it in place and time by narrating his experiences over four decades in Wisconsin, Illinois and Iowa, Arizona and New Mexico, Chihuahua and Sonora, Oregon and Utah, and Manitoba. The final section, “The Upshot,” does the most to develop the didactic aspect of Leopold’s ethos as he sternly instructs his audience in the ways we might begin to fix the ecological sins enumerated in “Sketches” and knowingly avoided by Leopold himself in the “Almanac.” In its totality this ethos forms the complex central consciousness of the book, at once humble and arrogant, forgiving and impatient, hopeful and despondent, graspable and distant, but always curious, perceptive, and unsettled, and always emanating from his sand country property.

Leopold evinces many of these qualities even in the *Almanac*’s two-and-a-half page foreword. His first words are those of the naturalist: “There are some who can live without wild things, and some who cannot. These essays are the delights and dilemmas of one who cannot” (vii). More overtly defining himself against those “who can live without wild things,” he notes the “conflict” between “mechanization” and a steady caution about its rewards: “We of the minority see a law of diminishing returns in progress; our opponents do not” (vii). In explaining the books’ structure he speaks of its philosophical and didactic turn in its third and final section: “Only the very sympathetic reader will wish to wrestle with the philosophical questions of Part III. I suppose it may be said that these essays tell the company how it may get back in step” (viii). Again on the next page

he hints at the importance of such deeper considerations: “That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics. That land yields a cultural harvest is a fact long known, but latterly often forgotten. These essays attempt to weld these three concepts” (ix). In his compact style, Leopold here inhabits all of the major qualities that will define his character for the whole of the book.

Leopold implicitly draws together the spatial and the social aspects of ethos theorized above to act as the *Almanac*'s primary persuasive force. By embodying the values of conservation – love of nature, knowledge of natural-world systems, and a political streak expressed in a drive toward social reform – Leopold tapped into an extant and recognizable culture his readers could and still can identify with. By setting his actions in a specific place he lends the abstract social values of conservationism a concrete venue in which they may be practiced. He says of the book's first section, in the foreword, “Part I tells what my family sees and does at its week-end refuge from too much modernity: ‘the shack.’ On this sand farm in Wisconsin, first worn out and then abandoned by our bigger-and-better society, we try to rebuild, with shovel and axe, what we are losing elsewhere. It is here that we seek – and still find – our meat from God” (viii). By explicitly defining the setting as his private property and marking it as a familial, domestic space, Leopold taps deep cultural values that extend far beyond the community of conservationists – precisely the point for an author whose goal is widespread cultural change.

The sense of domesticity that resides in “the shack” serves as a homespun ethic of work and simple family togetherness that subtly crops up throughout the *Almanac*'s

opening section. The book's second essay, "Good Oak," famously tells the natural history of Wisconsin land through the rings of an oak tree that Leopold and his "chief sawyer" (who, in the actual cutting, was his wife, Estella) cut into firewood. The essay starts at "the hearth" of the Leopold family shack, where the split oak sits "aglow on [the] andirons," and moves back in time (as does the rest of the essay, as the crosscut saw pushes backward through the tree's yearly rings) to the night when the family was awakened by the lightning strike that felled the oak. "Next morning," he narrates, "as we strolled over the sandhill rejoicing with the cone-flowers and the prairie clovers over their fresh accession of rain, we came upon a great slab of bark freshly torn from the trunk of the roadside oak" (8). Another such story is of the family's annual bird-banding ritual and the shared discoveries it allows, as when chickadee number "65290" (the title of the essay) returns for five successive years to become the farm's longest surviving bird on record. Other familial touches are more subtle, as when Leopold mentions his family's "reluctan[ce] to miss even a single performance" of the woodcock's mating dance (30), or his referring to "the loveliest of *our* orchids, the showy lady's-slipper" (71, emphasis added). In these moments, Leopold sets his ethos in society's most recognizable space – the private household – as he also occupies the social space of conservationist values. To recall the language of political theorist Barbara Cruikshank used in Chapter 2, the household is a space already "voluntarily" occupied by readers, while the conservationist values serve as a subtly "coercive" urge to extend domestic life into a kind of ecological citizenship.

Far more common, however, are essays in this first section of the *Almanac* that feature Leopold observing the features of his land and reflecting by himself on the

meanings of nature. “Smoky Gold” provides a particularly good example of Leopold constructing his ethos at the intersection of the physical space of his sand country property and the social space of conservationist ideals. This short essay tells the first-person story of a meandering hunt for grouse in which Leopold muses on his surroundings and the pleasures of hunting, and builds his prescriptive ethic for how to think of and treat the natural world. Essential to the construction of place and ethos is the sense of pleasure the narrator communicates and the bond it creates between him and his audience. “There are two kinds of hunting,” the essay begins, “ordinary hunting and ruffed-grouse hunting.”

There are two places to hunt grouse: ordinary places, and Adams county.

There are two times of year to hunt in Adams: ordinary times and when the tamaracks are smoky gold. This is written for those luckless ones who have never stood, gun empty and mouth agape, to watch the golden needles come sifting down, while the feathery rocket that knocked them off sails unscathed into the jackpines. (54-55)

From the outset we see that Leopold is hunting more than just grouse, and that for all his experience there is humility in his guidance, for even a missed shot is worth the trip. It is the whole scene and all its details that he is after, and he intends to take us (the “luckless ones”) along with him. Leopold's ethos as created here is of one who knows by his senses (“the golden needles come sifting down”) and his emotions (“mouth agape”). We feel fortunate, no longer luckless, in being able to accompany him.

Leopold further establishes his ethos with a contrast, sketching a hunter with an opposing set of values that we would rather not accompany, and who we would rather not be. “I sit in the solitude of my tamaracks,” he says, “and hear the hunters' cars roaring up the highway, hell-bent to the crowded counties to the north” (56). Though he is a hunter himself, his attention is too broadly dispersed to be “hell-bent” on anything in particular, instead remaining open to the pleasures of his surroundings.

I chuckle as I picture their dancing speedometers, their strained faces, their eager eyes glued on the northward horizon. At the noise of their passing, a cock grouse drums his defiance. My dog grins as we note his direction. That fellow, we agree, needs some exercise; we shall look him up presently. (56)

These are hunters who, according to Leopold, have narrow goals, so narrow that they do not see what he does. It seems they have gotten what they wanted from Adams County and are now rushing home, while Leopold takes his time and enjoys all parts of his land. Leopold clearly occupies the social space of the conservationist ideal, thrown into higher relief against the contrast of the “trophy” hunter.

The contrast in *ethoi* becomes more stark as Leopold adds the element of physical space to their characterizations. For the hunters confined to their cars, all things proceed in a linear fashion, always toward a defined goal, whether the goal is a trip to the county for a hunt or a trip back home. Focused in this manner, they miss the periphery in which most of the world exists:

Few hunters know that grouse exist in Adams County, for when they drive through it, they see only a waste of jackpines and scrub oaks. This is

because the highway intersects a series of west-running creeks, each of which heads in a swamp, but drops to the river through dry sand-barrens. Naturally the northbound highway intersects these swampland barrens, but just above the highway, and behind the screen of dry scrub, every creeklet expands into a broad ribbon of swamp, a sure haven for grouse. (55-6)

Quite literally in this passage, Leopold sets against one another the straight line of the hunter-drivers' consciousness and the expansive web of his own. Something as simple as a "screen of dry scrub" bounds what the hunter-drivers know within the rigid lines of the road, while Leopold not only sees beyond the trees, but knows why they are there.

Farther along in the hunt, when Leopold happens upon an abandoned farm, this spatial awareness combines with a temporal one, and another ethos-building dual characterization:

Higher up the creeklet I encounter an abandoned farm. I try to read, from the age of the young jackpines marching across an old field, how long ago the luckless farmer found out that sand plains were meant to grow solitude, not corn. Jackpines tell tall tales to the unwary, for they put on several whorls of branches each year, instead of only one. I find a better chronometer in an elm seedling that now blocks the barn door. Its rings date back to the drouth of 1930. Since that year no man has carried milk out of this barn. (57)

Here we see a deep sense of the way the natural world marks the passage of time paired with a love for reading the markings. The jackpines are "marching" across the field, and indeed they are if we discard the fast-motion linearity of the hunter-drivers and adopt

instead Leopold's "better chronometer," one that accounts not just for speeding cars but also for the motion of a growing tree and the advancement of a body of them. Such a perspective might have saved the "luckless farmer," who was not the reader of natural signs that our narrator is, and again his ethos grows in proportion.

In relying so heavily on contrastive techniques of ethos-building, Leopold must walk a fine line between identification with and condescension over his readers. He runs the risk of lording his knowledge over his audience, and of, as Hochbaum phrased it in a letter on this very subject, "chid[ing] him for not having the vision you didn't have 20 years ago" (Hochbaum to Leopold, 4 February 1944). Leopold's gift for compact description belies a limited willingness to entertain the perspectives of those he sets up as adversaries; the caricatures he presents us with are too flat to have perspectives worthy of the name.

But if Leopold is dismissive and less than fair, he is also intensely *likable*. He is, to borrow a useful term from Wayne Booth, simply "good company," a quality built on his rhetorical persona's sometimes biting, ironic style; his expressions of pleasure and humility; and, above all I believe, his demonstrable competence in the field. It is in this competence that the social and the spatial combine most concretely to persuade his readers that his ethos is a behavioral model to be emulated. This is because the values it embodies are *pragmatic*, in the sense that William James defines pragmatism as valuing things according to what they "pay" (168). Leopold's awareness of the land beyond the highway pays him with the very experiences "Smoky Gold" describes, and that we feel lucky to experience with him. It is not knowledge for its own sake that we admire here, or that Leopold is holding up as admirable. It is instead a future-directed knowledge of the

past, a consciousness that is valuable precisely because of what it allows him to *do* in the present and future. Leopold has these abilities because he is a certain kind of landowner, one that, if we sympathize with him intensely enough, we will also wish to be ourselves.

The “Almanac” section, then, begins defining the book’s overarching ethos, that of the naturalist philosopher-teacher, humble in the face of nature but not in the presence of other people. It also builds Leopold’s ethos of the husbandman, both in the domestic and agricultural sense. On close inspection, this section does not, as H. Lewis Ulman argued, construct Leopold as “the *hermit*” (66), for he is too engaged in the project of creating a conservationist public and too rooted in his family life to be read as such a solitary figure. The *Almanac*’s second section, “Sketches Here and There,” builds on the likability and competence of the first section’s ethos, as well as on readers’ easy identification with the domestic husbandman, and extends it into a broader national, even international, context. The essays in “The Upshot,” which end the book, trade geographical breadth for philosophical depth, and showing for telling, to teach readers how to be in the natural world in the absence of a supportive culture, thereby (he hopes against the odds) creating one. Though Leopold’s ethos and overall argument shifts in these ways, I argue that it remains rooted in his sand country property.

“Sketches Here and There” continues Leopold’s use of contrasts to build his own ethos as the one that embodies the communal values of cutting-edge conservationism. In “Illinois Bus Ride” his foils are the farmers who own the lands that roll by outside the bus’s windows. The first we see works with his son to saw down a huge old cottonwood. Leopold wryly observes that the tree “is the best historical library short of the State College, but once a year it sheds cotton on the farmer’s window screens. Of these two

facts, only the second is important” (117). The scene recalls “Good Oak,” in which the Leopold family cut down their own “historical library,” when it was struck by lightning, and recognized it as such by narrating the land’s history as the saw sliced through the oak’s rings. The Illinois farmer’s petty reasons for cutting cannot inhabit, as Leopold does, the social space of conservationist ideals. The other farmers whom Leopold sees are similarly uninformed. One cannot, in Leopold’s imaginings, identify the flowers clinging to his fence (“A weed, likely,” Leopold ventriloquizes), and another misidentifies an upland plover as “a snipe” (118). His fellow riders, too, miss more than they see as they “talk and talk and talk” about “baseball, taxes, sons-in-law, movies, motors, and funerals, but never about the heaving groundswell of Illinois that washes the windows of the speeding bus” (119). They all travel down the narrow road of the trophy hunter in “Smoky Gold,” yet only Leopold possesses the expansive vision to see history emplaced.

Leopold’s ethos would be much less persuasive here if it was not previously identified with his sand country property. On the Illinois bus there is none of the grouse hunt’s simple pleasure and easy philosophizing, so the biting tone and narrow characterizations lack a positive counterweight. For this essay to retain the power of the “Almanac” section, we must know we are still in the company of our competent husbandman and not merely stuck in the seat beside an old crank. And yet, in the context of the whole book and in the tradition of American nature writing, the crankiness adds a dimension that is not wholly unwelcome, recalling in its way Thoreau’s critique of Concord men who, having “inherited farms, houses, barns, cattle, and farming tools” that are “more easily acquired than got rid of,” would have been better off “born in the open pasture and suckled by a wolf” (6). Who among us has not felt critical of those around us

while listening to them “talk and talk and talk” of petty concerns on a bus, in a restaurant, in a park? Even so, the impatience in the ethos of the “Sketches” section has value in part because of a different kind of contrast: the husbandman ethos we left only two dozen pages earlier.

Scott Slovic has noted the differences in ethos and tone between the *Almanac*'s first essays and its final section, “The Upshot,” yet there are clear connections between them. Where the “Almanac” section narrates the experiences of the conservationist landowner, “The Upshot” reprises this identity for more explicitly didactic purposes. In the essay, “Conservation Esthetic,” Leopold delineates a hierarchy of natural-world citizenship, at the top of which sits the very ethos he defined for himself in the “Almanac.” The point of the hierarchy, however, is that it is not static; it consists of phases that the nature lover can and should pass through. The first stage is that of the “trophy hunter,” recognizable from “Smoky Gold” but softened so as not to be a pure antagonist. This is the nature-lover who seeks some thing – “a bird’s egg, a mess of trout, a basket of mushrooms, the photograph of a bear [...] – that “attests that its owner has been somewhere and done something.” But it is ultimately an untenable position because its primary act is a “reducing-to-possession” (*Sand County* 169). The final stage of this evolution, achieved by the most dedicated natural-world citizens, was “the sense of husbandry:”

[I]ts enjoyment is reserved for landholders too poor to buy their sport, and land administrators with a sharp eye and an ecological mind. The tourist who buys access to his scenery misses it altogether; so also the sportsman who hires the state, or some underling, to be his gamekeeper. The

Government, which essays to substitute public for private operation of recreational lands, is unwittingly giving away to its field officers a large share of what it seeks to offer its citizens. (*Sand County* 175)

As opposed to “reducing-to-possession,” the sense of husbandry Leopold speaks of is the desire and capability to contribute directly, physically, to land health. He implicitly refers back to his own private landowner ethos from earlier in the book and expands its importance by placing it in a national context.

This context includes a sense of history and a vision of a better future. The historical aspect draws a direct line from Leopold’s “sense of husbandry” to Jeffersonian agrarianism. Thomas Jefferson famously believed that citizens developed virtue by working their lands. “Those who labour in the earth,” he wrote in *Notes on the State of Virginia*, “are the chosen people of God, if ever he had a chosen people, whose breasts he has made his peculiar deposit for substantial and genuine virtue. [...] Corruption of morals in the mass of cultivators is a phenomenon of which no age nor nation has furnished an example” (217). Leopold believed that when government “essays to substitute public for private” management of lands it deprives citizens, and the nation, of virtues they would gain by doing the work themselves. His vision for a better future is one in which more citizens apply their own minds and muscles to land out of a sense of their own personal, communal ethics, rather than to fulfill a bureaucratic requirement or their own self-interest.

“The Land Ethic” completes this project in *A Sand County Almanac*. Drawing from three earlier essays (including “Conservation Ethic” and “The Ecological Conscience,” referred to at the beginning of this chapter), it argues explicitly for

something Leopold had been working toward in various forms for much of his career: an internally motivating force that would engender sustainable ecological behavior, a kind of practical wisdom of human/non-human relationships. Because of this, and because it appears at the end of the book that was only accepted for publication in the last week of his life, “The Land Ethic” is viewed as a culmination of a lifetime of thought. Leopold, of course, would not have viewed it this way. When he died he left a series of projects in various states of completion, most if not all of which likely built on ideas expressed in the *Almanac* essays.⁶⁵

But “The Land Ethic” and the *Almanac* as a whole stand as a different kind of culmination as well: the culmination of an ethos – that is, as the unification, as much as there can be one, between Leopold’s public rhetorical persona and private physical self. In his early years Leopold struggled to formulate a rhetorical persona that was pointedly *not* a reflection of his physical, historical self. After bragging for years to his family of his ability to ride, bareback if necessary, for dozens of miles over the most rugged terrain, to find his way by moonlight, and to withstand the harshest mountain weather, he nearly died from exposure after getting lost in northern New Mexico. Yet during this time, as we saw in Chapter 2, he donned the mask of the historically familiar pioneer-sportsman ethos to serve as an ideal for the public he was attempting to create. Later examples of the mismatch between ethos and person were less extreme. In the late 1920s and early ‘30s, he took on the characteristics of all the constituencies he needed to unite under the banner of wildlife management, speaking the language of researchers, conservation professionals, hunters, farmers, and various “old timers,” though he was at that time primarily an institutional bureaucrat, albeit with wide experience and sympathies. In the

early '40s, in the Wisconsin deer debates, he narrowed his ethos to reflect the concerns of the rationalistic scientist and *deflect* the values of the sportsman who felt a connection with his prey. But in the *Almanac*, as we have seen, Leopold creates one overarching ethos from three specific *ethoi* drawn from the full range of his concrete, conservation-related experience: his work and play on his sand country farm; his travels in the United States, Canada, and northern Mexico; and his more philosophical ventures into American conservation built on his decades as a professional naturalist. It is the most comprehensive and personal account we have of him in his own words.

To say that *A Sand County Almanac* stands as a culmination of ethos and self is not to say, however, that there is a stable, pre-existing self that ethos can or should reflect. It is to say rather, with Alcorn above, that the individual self is *stable enough* and has *enough agency* to recognize and draw from elements of its own private identity – whether these elements are shared in common with others, as in Leopold's conservationist values, or not shared, as in his physical health – in constructing a public, rhetorical ethos. And even though the separateness of the terms *ethos* and *self* connotes a clean separation between the two, I assert with Reynolds and Jarratt's sophistic theory that ethos and self are formed simultaneously by rhetoric. That is, that "character" is both a quality of the self and of one's ethos, and both are formed together in the use of language.

The above analysis of *A Sand County Almanac* illustrates the complex, co-constitutive process of ethos and self forming each other. In his day-to-day life, beginning in the mid-1930s, the sand country property became a private analogue to Leopold's public conservation work. There he practiced the sustainable land-use

principles he had come to believe in through years of research and was advocating among land owners and managers of public lands. But the land was not part of his public rhetorical ethos until he wrote about it. When the *Almanac* was published, both the land and Leopold's ethos were enlarged. The Leopold family land – their “haunt” – extended Leopold's ethos, already influential among conservationists, into a specific, mappable, physical space. Reciprocally, Leopold's rendering of the land into the medium of evocative, persuasive language extended it into the minds of his readers, and eventually into the wider cultural consciousness. As a rhetorical agent, Leopold took an element of his individual identity that was not yet a part of his public ethos – his family's land and their experiences there – and consciously added it to that ethos.

In doing so, he also added his ethos to the sand country land. *A Sand County Almanac*, in fact, is an essential part of the Leopold farm. It is one of the nodes by which private became public, and stewardship became citizenship. Physically tending the land to restore its health was Leopold's way of benefitting the human and non-human inhabitants of the shack property's immediate ecosystem. The *Almanac* extended those benefits into discourse in the hope of persuading others to act in similar ways on the lands they owned or, in the case of public lands or lands that produced products for purchase, ones they held some sway over. In this way, Leopold hoped – against the odds, as he surely knew – that his writings would essentially enlarge the boundaries of his land by creating more lands with its qualities of biodiversity and self-regeneration. This was the purpose of modeling himself as an ideal ecological citizen for others to emulate: if they truly shared his values, they would slow the spread of ecological destruction and create more spaces of lasting natural health.

Leopold sought to turn his land into a publicly beneficial space by rhetorically shaping it, his practices there, and the hard-won philosophy of land use that they represented, and sharing it with an audience of sympathetic readers. We turn next to a technical representation of one of Leopold's core daily practices – phenology, the recording of seasonal changes to flora and fauna that form the foundation of *A Sand County Almanac* – and then to a current example of the reciprocally constitutive nature of ethos and place: the Aldo Leopold Foundation Legacy Center that currently occupies the Leopold family's Wisconsin land. In doing so, we do not turn away from “The Land Ethic,” but rather toward concrete manifestations of it in Leopold's time and in ours.

Private Land and Public Benefit in Technical Communication

As we saw in Chapter 4, several of the short essays that ended up in *A Sand County Almanac* were originally published as instructive vignettes in conservation bulletins. Before his *magnum opus* was released to the wider world, then, Leopold was trying to turn his private experiences as a landowner into publicly beneficial tutorials that would, he hoped, make sustainable land use more the norm than the exception. In at least one instance, Leopold extended this practice into a technical paper as well. “A Phenological Record for Sauk and Dane Counties, Wisconsin, 1935-1945,” co-authored with his student Sarah Elizabeth Jones, records and compares environmental activity at two research stations, one encompassing a large swath of Dane County including the University of Wisconsin campus and 500-acre arboretum, the other Leopold's farm and some adjacent land. As a scientific research article, “A Phenological Record” makes less extensive use of ethos as a persuasive strategy, but reviewing it briefly here helps to show, in ways inherently different from those illustrated in the *Almanac*, how private land use can be turned to public benefit through discourse. Further, it shows how the

value of Leopold's daily technical practices extend particularly to our own era of rapid global climate change.

Leopold took seriously the regular, careful observation of his land and recorded the data in his shack journals. When he began the journals in 1935, the year his family acquired the property, his entries were often short narrative accounts of time spent there noting the weather, what work was done (such as shack improvements, plantings, building and repairing small structures like birdhouses or fencing), animals spotted, and plants in bloom. But as time progressed the entries became more formally scientific, typically organized into a set of consistent categories: weather, birds seen, mammals seen, morning song, evening song, phenology. "Morning song" and "evening song" were records of the order in which birds began or finished singing and their times of doing so; "phenology" refers to the science of observing cyclic natural events and in Leopold's journals primarily included the seasonal activities of flora and fauna – his "tenants" as he called them in *A Sand County Almanac*. The phenological entries were often collated into tables, presumably to show records of change across a given year and to make years more easily comparable to one another. "A Phenological Record" stands as the only published scientific paper that explicitly makes use of these data.

Because the data are concrete events, the tables have an implicit but strong narrative quality. The February and March tables record skunks and chipmunks emerging from hibernation; the first songs of cardinals and the arrivals of redwing blackbirds, grackles, and Canada geese; the thawing and flooding of the Wisconsin River (in Sauk) and Lake Wingra (in Dane). The August and September tables' headings include "American Egret: Wandering young first seen," and "Oaks: Ripe acorns first fall" (100).

Leopold took his observations from his family's private land and the public property of the university to create broadly inclusive narratives of environmental activity usable, as records in themselves and as a method for creating future narratives, for anyone whose work would benefit from a deeper understanding of ecological connections within a given place.

But the "public-ness" and "private-ness" of the two research stations are not limited to their legal designations. The character each gains in the paper's descriptions, and in the narratives that can easily play out in a reader's mind as the paper progresses, are quite different. Briefly described in the paper's introductory sections, the Sauk station "includes two or three square miles around the Leopold shack in [...] Sauk County," while the Dane station "is an area of similar size including the University of Wisconsin Arboretum and adjoining parts of the city of Madison and University of Wisconsin campus" (84).⁶⁶ The observers for the Sauk station are Leopold and his son, Carl, and the observers for the Dane station are Sarah Elizabeth Jones, nineteen others listed in a small table, and the "Kumlien Ornithological Club" (85). The picture of one space, then, is of at least two dozen people making observations at several loosely connected locations over the course of a decade. It is presumable that several or even most of these individuals are Leopold's students, though there is no clear sense of whether or to what degree the work was collaborative.

The picture of the other space is of a father and son watching and recording the ecological changes on their own land for that same decade, and here it is easy, perhaps even natural, to assume that the work was indeed collaborative, and in the most intimate of ways. Further, because one of the sources listed in the section describing the observers

is Carl Leopold's unpublished phenology manuscript done for the University of Wisconsin's department of wildlife management, one can assume that there exists in this relationship some of the same professional mentoring going on in the Dane group.

If we expand the narratives recorded in the twelve monthly tables to include these site-specific relationships – not a stretch, I would think, even for the scientifically minded readers of *Ecological Monographs* – we reveal distinctly public and private stories unfolding on public and private land. An entry for either station, such as “American Egret: Wandering young first seen,” of course implies the observer as well as the observed. For the Dane station, because the pool of observers is so large, it is something of a cognitive leap to imagine the observer as any single person, and the experience of the observation is almost certainly part of a public relationship of shared purpose, such as that between students or co-workers and their mentors. The same entry for the Sauk station denotes, in addition to the spindly-legged white birds themselves, the shared experience of father and son seeing them together or one telling the other about it, in either case the experience existing within the larger context of a familial bond.

Different narratives notwithstanding, the “Phenological Record” article makes Leopold's private land public in at least two obvious ways. First, it turns the data from his journals into a published article with practical implications for readers. Second, it sets up an equivalence between the Leopolds' private Sauk County land and the public land of the university arboretum and campus, showing that publicly beneficial “research” does not have to involve complex instruments or calculations, but instead, as we saw Leopold arguing in Chapter 4, merely the patient observation and recording of the natural world. This insight is particularly important in our own era of global climate change. A principal

goal of phenology is to identify patterns in the long-term. A warming climate changes the times at which birds migrate, mammals hibernate, flowers bloom, and insects hatch. Research on public lands provides data for scientists, but what if, as Leopold imagined in his own time, such “research” became the daily, weekly, or monthly routine of a plurality of citizens? Certainly the rhetorical challenge of communicating the realities of climate change would diminish as more people saw evidence for it in their lives.

Phenology serves as a concrete and relatively simple manifestation of Leopold’s land ethic, and in his lifetime, before he articulated that ethic, it formed the foundation of his ecological practice. In the same way that “The Land Ethic” implicitly refers back to the *Almanac*’s earlier observations of the woodcock, skunk, deer, Draba, and other of Leopold’s “tenants,” so do these observations refer back to Leopold’s phenology journals. They are the means by which he came to know the plotlines of his land, and therefore served as the engine for turning his private property toward public benefit.

While we tend to think of private land as the bounded province of the owner, and public land as usable in one way or another by all, “A Phenological Record” and the *Almanac* demonstrate the falsity of this split. Lest it seem simplistic to argue for the inherent similarities of public and private lands and the public uses to which they can be put, we might consider legal scholar Eric Freyfogle’s enumeration of the ways in which our culture’s view of private property profoundly skews how we see land, and how Leopold’s land ethic militates against such views.

Freyfogle sees Leopold as a visionary on land use and the rights and obligations of property owners. That land use is not much improved since Leopold’s day is largely due, argues Freyfogle, to the failure of property law to keep pace with ecological insights.

As scientific research shows the undeniable fact of natural connection, property law persists in five flawed assumptions that it draws from and passes on to the wider culture in a circuit of eco-legal dysfunction: 1) “people are distinct from land,” 2) “humans can draw lines on the land and thereby divide it meaningfully into discrete pieces,” 3) separate land management regimes across these lines cause no significant problems, 4) market value is an acceptable, lone calculus of land value, and 5) land parcels are fundamentally the same (Freyfogle “Ethics” 648-50). An enormous share of environmental degradation in the United States, Freyfogle asserts, can be traced back to these antiquated assumptions. Laws and cultural mores must be revamped “to raise the requirements for a landowner to be deemed a decent citizen” (“Battling” 19).

Freyfogle argues that the kind of land ethic put forth by Leopold, in which land is managed for communal rather than individual good, was once a matter of course for property owners. “From earliest-known times,” property rights “were created by the community, and they were enforced only when and so long as the community stood behind them” (“Ethics” 638). “Natural-law” theories of property popularized by John Locke and other political theorists influentially argued that individually held private property was a divine right, effectively nullifying communal sway in land use. This view took on new, ultimately destructive dimensions with the expansion of the American west, where homesteading laws “fueled a sense of mobility and impermanence” (“Ethics” 642). For Freyfogle, Leopold’s writings provide a jumping-off point for modern culture to address the harms done by these historical developments and hold landowners to a higher standard of citizenship.

Admittedly, phenology serves as only a small step toward the kind of cultural changes envisioned by Leopold and in turn by Freyfogle, but I pair this practice and these ambitions to further connect the links that Leopold saw between regular private activity and publicly beneficial societal transformation. And while Leopold would no doubt be devastated by the ecological havoc wrought in our own time by what he ironically called “our bigger-and-better society,” he would also be heartened by what is now being done to combat it in his name and on his land.

The Citizen Family and the Politics of Care: Leopold’s Modern Ethos at the Aldo Leopold Foundation

We have seen how Leopold used his sand country land as a site of ethos construction and how this blending of ethos and place has served the rhetorical purpose of spreading an ecological ethic of land use. In this section we turn to Leopold’s ethos as it is currently constructed on the same piece of land by its current steward, the Aldo Leopold Foundation (ALF). As I found when I visited the ALF in the summer of 2013, both ethos and land have been updated for the 21st century: while the property now houses the Leopold “Legacy Center” – a LEED-Platinum certified⁶⁷ marvel of green technology – the ethos of Aldo Leopold has taken on a decidedly family-oriented cast, rooted in the domestic space of the shack property. Drawing on theories of green citizenship and ecofeminism, I argue that the ALF’s transformation of Leopold’s ethos leverages the powerful rhetorical resource of what I am calling the “citizen family” to reflect our modern concerns about the public environmental effects of private actions, but that the depoliticized nature of the ALF’s appeals severely limits their reach.

At the Legacy Center, there is a simultaneous and reciprocal ethos-building that triangulates between Aldo Leopold, the Leopold family, and the ALF that argues for the

private dedication and public worth of all three. In contrast to Leopold's own writings, where he very subtly wove family togetherness into the scene of his sand country property, the rhetoric of the ALF leans heavily on the construction of an ideal family unit to build its own ethos. Given that the Foundation was started by Leopold's five children, this kind of ethos-building seems entirely reasonable and appropriate. But, as we can see by looking back over the ways that Leopold constructed his ethos over the course of his career, this "domestic turn" marks a significant departure not only in Leopold's public identity, but in the way we think about our canonical environmental forefathers. Where once Leopold was a lone hunter, or a "covered wagon" pioneer, or a coldly calculating scientist, or a savvy landowner with the heart of a poet, he now exists as the head of a large family that expresses its affections through publicly useful labor. This is the Leopold "citizen family," a family united by mutual love and respect within a private *oikos* that is also the site of communitarian action attentive to the *polis*, and it serves as a kind of nucleus of value around which the ALF and Leopold himself orbit and from which they draw rhetorical power.

We know, though, that an effectively persuasive ethos reflects the public with whom it seeks to identify as much as it reflects the rhetor who constructs it. To repeat the words of S. Michael Halloran quoted in an earlier chapter, "To have *ethos* is to manifest the virtues most valued by the culture to and for which one speaks" (60). This is the "social space" from and toward which ethos emanates: the values of the community of which it is a part and that it seeks to persuade. The ALF, as a non-profit conservation organization dedicated to stewardship and education, relies on an environmentalist public for its existence.⁶⁸ If it has successfully identified itself with this public, then it has found

a way to manifest the virtues most valued by it. However, if Leopold achieved a similar identification in his lifetime with a markedly different ethos, what about the environmentalist public has changed that makes it responsive to this new ethos? And what does this change tell us about contemporary environmental politics?

I want to argue that the domestic turn in Leopold's ethos is not simply a factual expansion of his life as it was lived on his land, but rather a rhetorical act of identity formation that reveals important cultural shifts. Theories of citizenship can help to explain how Leopold's evolving ethos, from lone sportsman-citizen to the head of a citizen family, reflects a similar change in the way politics generally, and environmental politics specifically, are enacted. While dominant classical and neo-classical formulations of citizenship subordinate private-sphere activity to public pursuits seen as more noble and valuable, modern green citizenship theory argues for the necessity of private-sphere values in public life. Applying them to the ALF's construction and use of the Leopold citizen family shows why a privately grounded, publicly engaged ethos is new and necessary, and how it might be extended.

Modern environmentalism holds as a truism that private actions have public consequences and are therefore political. To choose one of many possible examples, influential author-activists like Bill McKibben and Michael Pollan describe the ecologically backwards and morally bankrupt system of industrial agriculture to argue for eating locally and cooking mindfully as acts of political subversion. (In the previous chapter, we saw Leopold pointing out the moral and political complexity of eating mass-produced foods in the 1940s.)

But our modern sense of the political character of private-sphere actions runs counter to classical and neo-classical views of politics and citizenship. For Aristotle, a citizen's worth was tested and made in the male-coded public realm of equals (the *polis*), while the feminine-coded, hierarchical household (the *oikos*) was a place devoted to the lower activities of preparing and eating food and producing and raising children (*Politics* 1.2, 1.7). In the mid-twentieth century, not long after Leopold's *Almanac* was published, Hannah Arendt updated the classical separation of public and private to build a powerful critique of capitalistic societies. For Arendt the core distinction between the private and public realms centers on the idea of "labor" and "action." Labor is that which is done simply for the sake of maintaining existence, the lowest of human activities whose proper place is the *oikos* (12-13). To realize our true human potential, she argued, we must transcend both labor and the *oikos* through "action," or activity in the *polis* (30-31). Arendt says that citizens of capitalist societies increasingly center their lives and identities on labor at the expense of action (33-49). Wages earned in a neutered public sphere are used to buy goods for use in the privacy of our households, and the pattern that is created serves no larger purpose than the basic biological cycle of production and consumption. In this way the most basic and least admirable of human activities is elevated to the central purpose of existence, exactly reversing the priorities of ancient Athens in which the *oikos* existed for the sake of the *polis*.

More recently, green citizenship theory has pushed back against the classical separation and ranking of the public and private spheres. John Barry argues that privacy is no longer, as Arendt observed of the ancient Greek *oikos*, the sphere of privation, but is now where people live the most meaningful parts of their lives, including their lives as

consumers, and that “rethinking new models of citizenship should begin from this reality” (37). In their introduction to *Environmental Citizenship*, Andrew Dobson and Derek Bell observe that one of the major differences between green citizenship and “the 2000-year-old tradition of citizenship itself” (7) is that the former recognizes the political nature of decisions made in the private sphere.

Barry, Dobson and Bell draw on the feminist tradition of ascribing public value to private “care work,” but ecofeminist scholar Sherilyn MacGregor is wary of this strategy. MacGregor critiques scholars of environmental citizenship for falling into the trap of what Iris Marion Young has called “universal citizenship,” a conception of political participation that sees itself as de-gendered but in reality imposes masculinist norms. MacGregor argues that “blindness to gender specificity and gender relations undermines the very promise of environmental citizenship, for a society that has not addressed the unequal, and therefore unjust, division of responsibility for sustaining life will not be ‘sustainable’ socially, politically, or ecologically” (“No Sustainability” 102). She further argues that when we idealize domestic labor or domestic virtues such as care without explicitly identifying their political value, we run the risk of supporting conservative ideals of traditional gender roles and the neoliberal project of privatizing all care work, from child-rearing to health care to social security (*Beyond Mothering Earth* 10-14).

The Aldo Leopold Foundation, in constructing Leopold as a domestic being rather than a political or institutional one, performs the important task of showing the public value of private labor. But the depoliticized nature of this new, domesticated ethos limits its power. Visitors to the ALF can easily get the sense that, with a healthy dose of green

technology, household-based approaches to sustainability can obviate the need to engage the larger political sphere.

The ALF's linking of techno-environmentalism and traditional domesticity begins shortly after you step from your car. Halfway between the parking lot and the Legacy Center, a concrete cylinder rises from the ground, the visible portion of six hundred feet of "earth tubes" below the Center that modulate the building's temperature year-round with naturally circulating air. On the Center's south side, a stepped aqueduct diverts rainwater from the roof into a garden of thriving native plants. Entering the Center, visitors are welcomed into an airy room scented with the pine comprising its floor, walls, and high-beamed ceiling. The large stone fireplace and black-and-white photographs of the Leopold family make you feel as if you might have stepped into someone's home. Aerial pictures of the property show it as a barren, sandy-soiled desert around the time Leopold first saw it in the early 1930s, but now, thanks to decades of plantings by the Leopold family and intensive management by the ALF, it is a diverse landscape of pine and hardwood forest and tall native grasses splashed with the bright pastels of coneflower, lupine, and aster.

At the Legacy Center, the feeling of domestic warmth is continuously blended with the Foundation's public mission of education and hands-on conservation. The building houses a large one-room exhibit in which, against the implicit backdrop of Leopold's public advocacy and conservation work, the visitor is introduced to the land itself and the family who worked it for more than thirty years. Through photographs, carefully designed displays, objects such as tools and a bow that Aldo made, the exhibition argues for the worthiness of the ALF's mission largely through the ethos of the

Leopold citizen family. Immediately on your right as you enter the exhibition room is a large three-panel display. The middle panel announces that the Foundation “was founded in 1982 by the children of Aldo Leopold,” and above these words is a picture of the five siblings, taken in that year, at ease and smiling broadly outside of the shack. A caption reads, in part, “Leopold’s children all grew to become respected scientists and conservationists in their own right.” On the outer panels are individual pictures of the Leopold children, one from adulthood and one from childhood taken on the shack property for each, and their professional biographies. On a table nearby are the aerial photographs of the property, from 1937 (two years after Leopold bought the initial acreage), 1949, and 1992. The differences, as mentioned above, are striking, with the earliest picture showing land that might have been cleared by bulldozers as the future site of a subdivision or shopping mall, and the latest showing it covered almost entirely by vegetation. Near these pictures is a binder of dozens of laminated Leopold family photographs showing each of the seven members of the family on the property throughout the years: fishing, hunting, planting trees, eating, singing songs – living and doing the work that transformed the landscape.

The narrative of the Foundation property is one of a successful experiment that proceeded from the mind of Aldo Leopold, through the hands of his children first on this private property and then, through him and through them, into the public sphere of their professions, then again to the very buildings that house the foundation, connecting Leopold’s public advocacy and family life to the leading edge of 21st century conservation practices. As you take in the Leopold family history of land improvement and togetherness, the exhibit weaves the wholesome strength of their ethos with the green

construction practices used to build the Legacy Center. You are told that all the wood you see, from the unvarnished floors, paneling, and ceiling beams, to nearly all the wood comprising the Foundation structures, comes from within two miles of the spot on which you stand. This means that the Legacy Center is itself made of the landscape that the Leopold family created, and that their hands likely planted many of the trees used for lumber. You could hardly be more surrounded by Leopold's material legacy.

The domestic turn of Leopold's ethos reflects the expansion of the public sphere generally and the environmental public sphere in particular to include spaces of domesticity. In the case of private property and the home, represented in the land worked by the Leopold family and the shack they inhabited, the spaces are physical. But the domestic spaces represented by the ALF are conceptual and abstract as well. The ALF emphasizes, for example, the private-sphere virtues of care and compassion earlier referred to, not only in the Leopold's care for their land but for each other. These virtues also encompass the abstract space of parenting, the overwhelming success of which is evident in every facet of the ALF, from the prominent display of the five successful Leopold children to their founding of the Foundation itself.

Missing from the Foundation's layered but idealized construction of ethos, however, are the negative resonances of our own and Leopold's times. While the Leopold family did its restoration work before the corrupting influences of the Vietnam War, Watergate, 9/11, and a media culture that is salacious, ubiquitous, and hyper-individualized, it also predated the Civil Rights and feminist movements and an increased democratization of knowledge brought about by internet technology. And while we have developed green technologies capable of significantly reducing our carbon footprints,

they are mired in political and ideological gridlock so deeply rooted as to make reasonable public dialogue about the scientific fact of climate change, not to mention possible responses to it, all but impossible. I am not asserting that it is the Foundation's responsibility to account for all the negative resonances of the rhetorical resources it is drawing from, but that there is considerable danger in nostalgia for a purer domestic life based largely on cultural myth. Further, not calling attention to Leopold's success at uniting diverse publics through pragmatic rhetoric constitutes a profound missed opportunity, especially given our own political gridlock.

At least two other negative effects grow out of the ALF's idealized and depoliticized construction of the Leopold citizen family. The first, alluded to earlier in the work of Sherilyn MacGregor, is the implied narrative of parental success that effaces the role of Estella Leopold and her domestic care work. Though Aldo Leopold was by all accounts an attentive father, he simply could not have maintained his career and his home without a wife who made her life in that home. It is possible that largely omitting Estella Leopold from the ALF's public displays was a conscious choice made in partnership with the family. But leaving visitors to calculate for themselves Estella's work of child-rearing in public terms supports traditional gender roles much more than it supports care and compassion as citizenly virtues.

In short, while the ALF's domestication of Leopold's ethos reflects a cultural turn toward feminist values already embedded in modern environmentalism, it essentially mounts no serious cultural critique and reinforces dangerous norms. The public value of Estella Leopold's domestic care work is embodied in the professional success of her children, but there is no sense of the value of this work beyond the children themselves.

Further, the idealization of the citizen family shifts from the individual person to the individual family the American mythos of self-reliance. MacGregor has noted the right's uncanny ability to turn such narratives, when asserted by the left, toward their own goals of privatization, essentially offloading public institutions' responsibility to care for citizens onto private corporations and citizens themselves.

If environmentalism is to effect large-scale change, it has to turn its consciousness of private sphere virtues toward problems of justice. Within this frame, the ALF's depoliticized valuation of care and its nostalgic re-creation of the mid-century citizen family seems, at best, like avoidance of the difficulties of modern activism, or, at worst, like a retreat from all but the most local engagement. The journalist-activists Ian Angus and Simon Butler have argued forcefully, in fact, for the profound inadequacy of private-sphere responses to ecological problems, asserting that "individual consumption is not a major cause of environmental destruction and that changes in individual behavior can make at most a marginal difference" (137). In support of this claim they drop this staggering statistic: in 2009, the United States military alone used 5.7 trillion gallons of oil, producing "an estimated 7.3 million tons of greenhouse gases" (174). To put these numbers in context, the entire American transportation system annually consumes about 210 billion gallons of oil ("Clean Vehicles"), or less than 4% of military consumption.

Angus and Butler's argument provides a necessary context for thinking about the ALF's depoliticized approach to sustainability, but it also goes too far. For theorists of environmental citizenship, and for Leopold himself, environmentalism should be a means not only for reigning in large-scale carbon emitters, but also for changing culture. Industries and institutions change only when laws change, and laws change in response to

cultural upheaval. And while it is true that cultural change moves more slowly than we perhaps have time for, given the urgency of global warming's effects, policy changes made by large-scale emitters are unlikely to influence everyday publics' views about what nature is and how their lives relate to it. Part of the value of environmental thought based on citizenship, whether expressed in theoretical, literary, or other kinds of texts, resides in its ability to connect non-human nature with people's everyday experiences and inner lives.

Still, environmentalist orientations to the world must engage the public sphere of politics to effect real change. Perhaps my dissatisfaction with the ALF's use of its and Leopold's *ethoi* comes from my sense of their potential. At the end of his life, Leopold took a lifetime of thought and practice aimed at internally motivating publics toward sustainable ways of living and coalesced it into a broadly appealing literary work, *A Sand County Almanac*. At the heart of this work was Leopold's mature ethos rooted firmly in a particular place. Unlike Thoreau's Walden Pond or Muir's Yosemite, it was not a picturesque place. To the contrary, in fact, it was a badly degraded landscape that only took on a semblance of health and beauty with decades of hard physical work. Also unlike the ethos of Thoreau and Muir, Leopold's was at once a creature of the public institutional and the private domestic spheres, and as such could identify with mainstream cultural values and work at the level of education and governance to change them.

More recently, as we have seen, the Aldo Leopold Foundation has continued Leopold's harnessing of the power of place to spread his and its own *ethoi*. By subtly aligning both with modern environmentalism's understanding of the importance of private sphere actions, the ALF added a necessary and, to this point, largely unseen

dimension of one of our most important ecological figures. If anything, the ALF has intensified the connection between Leopold's ethos and the physical space of his sand country "refuge from too much modernity," and in doing so it has shown the resilience of this rhetorical strategy. In our modern age of globalized environmental politics, we have the expanded vision to see the effects, on the other side of the world, of our everyday decisions to drive our cars, run our air conditioners, buy factory-farmed beef, and a thousand other things. The strength of the ALF's hyperlocalized and domesticated ethos is that it is so deeply rooted in a particular place, one that has, through Leopold's writing, extended its physical existence into the cultural plane of canonical literary existence. In spite of any shortcomings, it does bring our dizzying global perspective down to earth.

However, just as the connection of ethos and physical space shows the power of Leopold's modern ethos as translated by the ALF, so does the connection between ethos and social space show its weaknesses. At its best, modern environmentalism blends "glocalism," a sophisticated understanding of the local within the global, with sense of the hard political battles that mark its own path forward. Though the ALF nods to the glocal nature of modern ecology, particularly on its website and in its biannual magazine, *The Leopold Outlook*, it maintains what must be a purposeful distance from politics' many forms. In doing so, it cannot occupy the social space of modern environmentalism; its and Leopold's *ethoi*, in this spatial sense, remain locked in the necessary but ultimately nostalgic foothold of what might be thought of as "conservation 2.0."

The ALF could perform a valuable service to Leopold's legacy and to modern environmental activism by finding ways to communicate what I have been arguing is one of Leopold's most valuable contributions to modern environmental rhetoric: his ability to

communicate across a range of publics and, in some cases, to unite them toward more sustainable ways of living. Because an effort like this would involve defining the publics themselves as well as Leopold's relation to them, it would introduce a more robust historical element to the ALF's definition of itself. Currently, for example, neither the Legacy Center nor the ALF's website (which is the first page that comes up on a Google search for "Aldo Leopold") provide much of a sense of the conservation movement as it existed in Leopold's time beyond his own property. Highlighting his communicative strategies, however, could include stories and images about farming and agriculture as it developed in the early and mid-twentieth century, about the growth of state and federal wildlife conservation infrastructure that grew out of Leopold's own work, and about the evolution of grazing and range ecology. Any historicizing of Leopold's audiences would of course include hunters, providing an opportunity to emphasize the common roots of two currently disconnected but powerful groups: modern environmentalism, associated with green consumerism, liberal politics, and urban life, and modern conservationism, associated with physical labor, conservative politics, and rural life. The ALF alone, of course, cannot bridge the deep divides that separate these groups, but recalling Leopold's rhetorical successes and the groups involved, and reconnecting his ethos with the public sphere while continuing to ground it in the private, would create a more complete portrait of the organization's namesake. Leopold's ability to speak effectively within and across communities remains his greatest unheralded legacy.

Chapter 6

Conclusion

This dissertation began with the assertion that Aldo Leopold and his ethos are separate but overlapping entities, and that tracing his ethos through key moments of its formation would provide a view of Leopold that we have not had before. This new view, it turns out, reveals something surprising and useful in that area of overlap between man and ethos, but also between ecology and rhetoric, and it centers on the opposed concepts of biodiversity and monoculture. Leopold would not have used the term “biodiversity” – the Oxford English Dictionary didn’t include the term until 1997, and puts its first use in 1985 (“Biodiversity”) – but he devoted much of his career to preserving it. From his fight to enforce hunting laws in New Mexico to his efforts at preserving northern Wisconsin’s forests, Leopold saw the tendency of modern society to eradicate species of flora and fauna and worked assiduously against it. In his public arguments for biodiversity, he stressed the value of human experience in a diverse landscape, as in this passage from *Game Management*:

The objective of a conservation program [...] [is] to retain for the average citizen the opportunity to see, admire and enjoy, and the challenge to understand, the varied forms of birds and mammals indigenous to his state. It implies not only that these forms be kept in existence, *but that the greatest possible variety of them exist in each community.* (403, emphasis in original)

We know now, as Leopold might very well have known then, that diversity in an ecosystem promotes stability (Tilman and Downing; de Mazancourt), and, conversely,

that ecosystems around monocultures – such as, say, hundreds of acres of corn or soybeans – require intense management by humans to maintain their productivity.

The preceding chapters show that diversity is also essential in public rhetoric. As Leopold may have intuited, and as scientists tasked with public communication are only recently grasping, appeals for scientific policy-making fail to connect in the public sphere when they do not account for diverse worldviews. When we rely on what we might think of as “rhetorical monocultures” that count on scientific reasoning to speak for itself, we find ourselves with large swaths of our citizenry that doubt the reality of global warming, or believe that God created humans in their current form less than ten thousand years ago, or think that if we keep cutting the taxes of high earners the middle class will grow. Certainly these are enormous problems of complex provenance. But this study of Leopold’s ethos has shown that he was most able to gather power to his causes in the broad public sphere when he spoke to the values of several constituencies at once, and least able when he channelled the supposedly self-evident logic of the informed scientist.

These insights are frequently discussed in mainstream and professional environmental discourse, not as settled, proven truths but as new realizations that we must put into practice. A recent report by University College London’s Policy Commission on Communicating Climate Science listed among its conclusions that “climate scientists are finding themselves ill-prepared to engage with the often emotionally, politically and ideologically charged public discourse on the evaluation and use of their science.” “At its root,” the report continues, “the public discussion of climate science is as much about what sort of world we wish to live in, and hence about ethics and values, as it is about material risks to human well-being” (UCL 8-9). A headline in

the *Guardian* last year read, “The Art of Sustainability: Imagination, Not Spreadsheets, Will Create Change” (Zammit-Lucia). But these discussions are almost never informed by a deep historical perspective, an omission that deprives us of examples and counter-examples we might use to guide us. While we are among the first generations to self-consciously confront the realities of global climate change, we are by no means the first to push science-based policy changes in a wary, even hostile, political environment. Studying an ethos like Leopold’s shows us the parts of current policy discussions that are new, the parts that are not, and what we can use from the old to more successfully undertake the new.

I close this dissertation, then, by thinking through the implications of an ethos that in some moments embraced a diversity of viewpoints and in others advanced a monocultural approach. I also discuss the value of rhetorical history as a method of scholarly inquiry, review what Leopold’s work teaches us about current environmental discourse, and suggest avenues for further research.

Positioning Leopold’s *Ethoi* of Exclusion and Acceptance

Leopold constructed himself as an ideal ecological citizen – a member of a *polis* whose choices reflected a deep knowledge of their effects on both human and non-human communities – in hopes of instilling a private code of sustainable behavior in his audience members, and though this strategy was always used to unite publics toward a common cause, unity was sometimes purchased through exclusion. Earlier studies of Leopold from the fields of rhetoric, literary studies, and history, have noted that he used his own behavior as a model for others, but these studies have only acknowledged this phenomenon in his later work, and none have explored its sources, development, or effects over the course of his career. Leopold’s best known model-citizen ethos comes

from *A Sand County Almanac*, a complex work that uses a range of ethos-driven tactics to instill an ethic of positive environmental action, or what Leopold called “husbandry,” the highest form of natural-world citizenship. The *Almanac* presents a multi-faceted ethos with which generations of readers have identified: the wonder-struck observer of nature who sits in the pre-dawn twilight with his dog and a pot of coffee to note the order of morning birdsong; the technically trained field man travelling the country and growing weary of seeing once-pristine landscapes succumb to the scourge of development; the patient, still-optimistic ethicist buoyed by the hope that the sight of a crane, or a deer, or a red-winged blackbird will move an indifferent soul toward good citizenship. In his 1931 *Report on a Game Survey of the North Central States*, Leopold also crafted an ethos that reflected the values of the broad range of identities he sought to unite. By tapping professional researchers, government conservationists, hobbyists, and landowners as sources of information, and by adopting their own language and rhetorical strategies, Leopold showed these groups what they had in common and then embodied that common ground in his own ecological point of view.

But near the beginning and end of his career he also constructed *ethoi* that were as exclusionary as they were inclusive. In the language of Susan Jarratt and Nedra Reynolds cited in Chapter 1, these are “guises” that fail in their “ethical obligation to recognize difference,” and that instead “erase differences in a push for agreement” – the precise opposite of the postmodern ethic of ethos Jarratt and Reynolds theorize in their work (56). In the New Mexico Game Protective Association *Pine Cone* that Leopold edited and wrote in the 1910s and ‘20s, he built what I have called a sportsman-citizen ethos that called upon the long history of sportsman-led conservation to unite an increasing

population of urban recreational hunters at the expense of the state's many poor subsistence hunters. While attacking a genuine biodiversity crisis, the NMGPA marginalized groups who had been successful stewards of Southwestern ecology for centuries, and on whom the sportsman ethos was based. In the early 1940s, Leopold responded to the emotionally charged Wisconsin deer irruption debates with a strict rationalism that alienated many of the state's hunters and government conservationists, and ultimately contributed to the abandonment of his policies. Advocating the mass killing of a key cultural resource, Leopold failed to communicate his deep reserves of sympathy for the natural world, and devalued non-scientific ways of knowing nature.

Leopold's varying approach to ethos-based arguments has important implications for scholars of rhetoric, particularly those writing historiography. Nedra Reynolds has written influentially on the need for rhetors to establish the cultural spaces from which they speak and write. It is ethically responsible, she argues, for rhetors to locate themselves in particular social constructs – including race, class, and institutions – so they and their audiences can determine their authority to direct others' actions. Extending Reynolds and Jarratt and Reynolds, then, I assert that for an ethos to be ethical it must 1) acknowledge where and how it is situated, and 2) account for difference by offering varied spaces for action, rather than attempting to remove agency by fully occupying any space from which action might occur. I further assert that it is unreasonable to expect historical figures to abide by these standards of our own time, and that it is therefore the work of rhetorical history to position *ethoi*, particularly those, like Leopold's, that still retain significant influence. Positioning Leopold's ethos reveals ethical and rhetorical contradictions that, to this point, have not been noted by scholars. The study of the *Pine*

Cone in Chapter 2 showed, for example, that Leopold's situation of privilege and physical disability contrasted sharply with the ruggedly independent ethos of the sportsman citizen that he used to draw institutional and social power away from Native and *Nuevomexicano* hunters. And Chapter 5's examination of the Aldo Leopold Foundation showed it positioning Leopold's ethos within the domestic sphere of his citizen family much more thoroughly than he had done in his own work.

Ethos and Method in Rhetorical History

Tracing Leopold's transforming ethos through key moments in his career has also shown how tools for rhetorical analysis can reveal the many cultural, historical, situational, and discursive sources of ethos formation. This study of Leopold's ethos required long looks into forces shaping the unique intersection of individual and community that an ethos represents, and because he was and remains influential, the web of connection is wide. Leopold's ethos drew upon the historically established type of the "sportsman" that came down through aristocratic English mores of hunting, the Leatherstocking tales of James Fenimore Cooper, mythologized portraits of Daniel Boone, and classic periodicals like George Bird Grinnell's influential *Forest and Stream*. Later in his career he subtly aligned himself more closely with the figure of the solitary thinking man in nature – Henry David Thoreau, Ralph Waldo Emerson, John Muir – but combined this ethos with the scientific wanderings of Charles Darwin and John James Audubon, and the passionate proselytizing of Theodore Roosevelt (without the bluster and taste for blood). In the twenty-first century, the Aldo Leopold Foundation has updated his ethos to include a warm, work-filled family life, and the accomplishments of his children.

Leopold bridges the gap between the nineteenth and twenty-first centuries in other ways as well, though his current standing among ecocritics is not high. Lawrence Buell

has called Leopold's fixation on hunting "naively androcentric and boy-scoutish" (184), and Dana Philips begins *The Truth of Ecology* by saying that Leopold's admonition to think "like a mountain" sets up "inhuman standards of objectivity and sensitivity" (vii). While his worldview seems provincial to us now, and though he may no longer satisfy the sophisticated needs of literary critics, Leopold managed rhetorical feats with which we still struggle mightily. This study has shown how he united in his persona, his arguments, and his professional self the public and private realms of government and business, and the public and private spheres of politics and the home. He also innovatively wrote and drew upon a wide range of genres to successfully communicate with audiences from all these realms and spheres. As Buell and Phillips suggest, Leopold's world of ideas was narrower than ours. But speaking to a range of audiences is not easy in any time, and this dissertation has shown how he did it from the wide angle of history and ideology and from the more focused level of genre.

A rhetorical history like this one is valuable in part because it asks different questions than does a traditional history. David Zarefsky argues that history told from a rhetorical perspective "views history as a series of rhetorical problems, situations that call for public persuasion to advance a cause or overcome an impasse" (30). Takis Poulakos says, "When rhetoric is regarded as a social practice that helps sustain the dominance of certain groups over others, its uses can be understood as so many practices designed to serve a particular set of power arrangements" ("Historiographies" 174). Unlike the work of Leopold biographers Curt Meine and Julianne Lutz Newton, who have provided inquiries into the material and social conditions that directly influenced Leopold during his lifetime, this dissertation has proceeded through a series rhetorical problems that

Leopold faced and has sought to discover the rhetorical traditions he called upon to ratify himself in the *polis*, the groups over which he dominated, and which power arrangements he aligned himself with and against. I have taken Meine's and Lutz Newton's biographies as foundational texts but have dug more deeply, as rhetoricians must, into the workings of Leopold's persuasive strategies, and I have assumed an unbridgeable gap between an unrecoverable human person and an ethos rhetorically constructed. To parse this rhetorical construction, the foregoing chapters employed the analytical tools of genre theory to show that Leopold blended the detached, objectivist tendencies of hard science with earthier narrative tendencies of field observers, in a document – the *North Central States* game survey report – that sought to appeal to both. This study also used the concept of rhetorical scarcity to reveal how rationalistic rhetoric can devalue majority opinions in democratic debate. In doing so, this study intervenes in current conversations about appropriating metaphorical frames from other fields, arguing that naturalistic metaphors need not preclude social genre analysis, and further showing that analytical frames drawn from the natural sciences, like ecology, and from social science, like rhetorical scarcity, can be complementary, each focused on a different level of textual analysis.

A rhetorical history focused on ethos explores discursive sources of identity leveraged for the purpose of creating communities anew. The value of this method lies in its ability to point not only to the communities with whom a rhetor has co-constructed an ethos, but also to the particular rhetorical strategies a rhetor has co-opted from those communities. In this way, we should think of Leopold not just as a rhetor employing an ethos, but as an audience of other texts receiving an ethos and repurposing it for new

material circumstances. Leopold wove together the sportsman's intolerance for subsistence hunting; the biologist's strict empiricism; the ornithologist's penchant for character development and narrative; the landowner's proprietary interest in his "tenants." The methods in this dissertation have shown Leopold as a waypoint of discourse: receiving it from specific cultural and disciplinary locations, shaping it and being shaped by it, and deploying it to create publics in what he construed as his own image.

Leopold's Pragmatism and Twenty-First Century Environmentalism

Leopold's ideas and rhetorical methods are part of a pragmatic environmental tradition that extends into the twenty-first century, cropping up in academic and mainstream texts alike, sometimes in unexpected ways. Green political theorist Andrew Dobson, for example, begins his 2003 book *Citizenship and the Environment* with a story that begins with trash, and ends with values. In 2002 the British government was looking for ways to reduce the amount of biodegradable waste its citizens threw away, so it proposed grading its flat fee for trash pick-up into a series of charges based on weight – the more you threw away, the more you would owe. Dobson points out the proposal's roots in the "self-interested rational actor" model of human motivation, according to which people do things either for some gain or to avoid some harm to themselves" (2). The problem, however, is that such a model "contains the seeds of its own demise," as citizens find self-interested ways to throw away the same amount of trash without paying extra, such as dumping on others' property, or driving their rubbish out to the countryside (2). Dobson's point, which Leopold would have agreed with, is that external motivators like fines don't change behavior in meaningful ways – only a change in values can do that.

Rhetoricians make a similar point from a slightly different angle, one that Leopold embodied at certain moments and that modern environmental activism is only beginning to heed. In her study of religious fundamentalism, Sharon Crowley asserts that it is always values, rather than material pressure or the reasoned presentation of evidence, that changes peoples' minds (to the extent that they can be changed at all). Crowley offers only a handful of suggestions for "civil discourse" between people whose worldviews are fundamentally opposed, but among them is reliance on narrative rather than "good reasons" as a foundational communication strategy. In *Ecospeak*, M. Jimmie Killingsworth and Jacqueline S. Palmer also recommend narrative-based communications, particularly for discourse at the intersection of science and politics, as environmental discourse nearly always is (though, as one of the major themes of their book, they also note the power of narrative to strip ecological problems of their complexity). Leopold, in the moments in his career when he managed to connect meaningfully with audiences toward some kind of change, nearly always relied heavily on narratives that identified his values with those of his audiences. In his less connective moments, such as the Wisconsin deer debates, he proceeded not from existing values toward new actions, but from logical appeals to scientific findings.

Increasingly, twenty-first-century environmental activism feels the need for varied, pragmatic approaches to communicating the urgency of modern ecological crises – in the model, I would argue, of Leopold. Scholars are noticing the correlation between a message primarily delivered in scientific terms and the failure of that message to penetrate the cultural consciousness (Schäfer and Schlichting). Intellectuals are advocating an approach to messaging and action that pragmatically balances economy

and ecology, individualism and communalism. And mass media figures are using their charisma and storytelling chops to bring the crisis of climate change home to everyday citizens in visceral, emotional ways. This dissertation, then, ends on a hopeful note by briefly describing two promising efforts to create a connective, dynamic, pragmatic ethos to urge publics to action, and a final reflection on how they extend Leopold's rhetorical tradition, and directions for future research.

The Breakthrough Institute, briefly discussed in Chapter 1, currently represents the pragmatic wing of intellectual environmentalism. Founders Michael Shellenberger and Ted Nordhaus essentially split off a new branch of the environmental movement with their 2004 article "The Death of Environmentalism: Global Warming Politics in a Post-Environmental World." They call their current brand of green politics "ecomodernism," or "eco-pragmatism," defining it thusly: "[It] offers a positive vision of our environmental future, rejects Romantic ideas about nature as unscientific and reactionary, and embraces advanced technologies, including taboo ones, like nuclear power and genetically modified organisms, as necessary to reducing humankind's ecological footprint" ("On Becoming an Ecomodernist"). They offer Martin Lewis, a Stanford University geographer, as a prototypical example. Lewis's own account of how he came to his present philosophy describes his journey from idealistic adolescent hiking northern California's undeveloped back country, to militantly idealistic Berkeley graduate student, to disillusioned field researcher finding out the harsh realities of the lives of indigenous Filipinos, to "radical pragmatist" thinker on matters of environment, economy, and politics. Breakthrough's style of environmental politics blends unapologetic criticism of the left's Romanticism with similar critiques of the right's market fundamentalism,

pitching their message in a Leopoldian sweet-spot that favors strong state action, rigorous scientific research, and tough-minded individual citizenship.

Another promising figure constructing a pragmatic, connective ethos is climate scientist and evangelical Christian Katherine Hayhoe. Hayhoe is a renowned scientist, currently serving as lead author on the 2014 U. S. National Climate Assessment. In 2009 she and her husband, a pastor, published a 2009 book titled *A Climate for Change: Global Warming Facts for Faith-Based Decisions*. Hayhoe appeared in the recent nine-part miniseries on global climate change produced by Showtime and director James Cameron, *Years of Living Dangerously*. On a recent episode of *Moyers and Company*, Bill Moyers casts her as an essential voice in a country where roughly 50 million white evangelical Christians say they do not believe that global warming is real or, if it is real, do not believe it is caused by human action (“Faith and Fact”). On the program, Hayhoe speaks of the importance of sharing values with audiences one seeks to persuade:

“For a long time, many of us have felt like scientists are on one side espousing one set of values. And Christians and or conservatives are on the other side. [...] So along comes this issue of climate change, but who are the primary spokespeople? It’s these pointy-headed scientists who have been on the other side of the fence on many other issues regarding creation, evolution, the age of the universe. [...] So it’s no surprise that when you get a messenger who is not trusted, who you perceive as not sharing your values, that you know, why would you believe them?”

(“Faith and Fact”)

Hayhoe's faith-based explanation for climate change says that God has given humans free will, and with free will comes consequences. Because we have burned trillions of tons of fossil fuels, we must now take responsibility for the environmental problems we have caused through collective political action to prepare for inevitable changes in climate, and to mitigate those changes as much as possible. For Hayhoe, Christianity and organized responses to climate change are completely compatible.

By bringing in the examples of the Breakthrough Institute and Katherine Hayhoe, I am not arguing that their positions would be Leopold's, or even that he would wholly agree with them. But both are pursuing pragmatic strategies of connection by building *ethoi* composed of diverse values. Their diversified, practical construction starts in scientific observation, but branches out to feasible economic proposals based on existing infrastructure, in the case of Breakthrough, or to feasible and deeply necessary ideological proposals, in the case of Hayhoe. From my own perspective, I am uncomfortable with the degree to which Breakthrough demonizes "the left." For example, a recent Breakthrough review of leftist journalist Naomi Klein's book *This Changes Everything: Capitalism vs. the Climate* chastises her for arguing that "the fossil fuel sector has pervasively thwarted sustainability reforms by bribing politicians, defanging environmental groups, [and] sponsoring fraudulent science" (Boisvert). Given the much publicized activities of Charles and David Koch and well documented incidents of petroleum companies sponsoring their own "science," Klein's accusations seem quite reasonable. Further, we need voices like Klein's that ask searching, provocative questions about capitalism's self-destructive excesses. And Hayhoe, as a climate scientist, is offering a connective message, not a slate of environmental policies. Both, however

represent an important eco-pragmatism based on shared values that extends the tradition of a Leopoldian ethos.

This project did not take on a number of fruitful subjects related to Leopold. Leopold left behind thousands of pages of personal and professional letters that constitute an important aspect of his ethos formation. While I have read many of these letters and incorporated several into this study, I have not made them an area of discrete focus to further show how they functioned in his personal relationships with friends and family, or with colleagues in the dozens of organizations in which he served and led. Estella Leopold stands as a largely unexplored figure in Leopold scholarship. She made the large Leopold family's home life possible, which included regular trips to the shack and all the work that was done there. Papers regarding her compelling family history are part of the Leopold archive, and Meine has covered the subject in some detail, but Estella is largely or completely absent from most studies of Leopold (including this one), and even from the domesticated version of Leopold portrayed at the Leopold Foundation in Wisconsin. Further, the Leopold children were all productive conservationists and scholars, and work remains to be done on their own conservationist visions and how they overlap and depart from their father's.

It would also be fruitful, if highly speculative, to imagine Leopold's unrealized future as an environmental activist. He died at sixty-one, a year *before* publication of *A Sand County Almanac*. It is conceivable to think of Leopold as still working in 1962, in the time of Rachel Carson's *Silent Spring*, and of him still living when his own *Almanac* enjoyed its first wave of popularity. Unlike John Muir, who began his career as an iconoclast eventually found himself a wealthy gentleman farmer comfortably ensconced

in a system he had resisted, Leopold started as a bureaucrat toeing the US Forest Service company line and ended up a keen cultural critic. Where might his critical mind have taken him, and taken us, as American publics became more receptive to arguments against the status quo?

Beyond Leopold, rhetorical histories remain to be written of several women and men of environmental activism. Two highly influential figures who lack a deep rhetorical inquiry of any kind yet have large collections of papers are Alice Hamilton and Liberty Hyde Bailey. Hamilton (1869-1970), whose better known sister Edith was a scholar of classical Greece, researched the effects of industrial pollutants like lead, carbon monoxide, and mercury, and played an important role in creating occupational safety regulations. Bailey (1858-1954) was an American agrarianist in the tradition of Thomas Jefferson. He championed farming and rural life as foundational to democracy and civilization, yet also embraced the technologizing of agriculture and profoundly influenced the place of farming in the modern economy. Rhetorical studies of either might ask questions similar to the ones asked in this dissertation: What ideologies and histories did they call upon in constructing an ethos? In what genres did they work, and how did these genres allow for and constrain social innovations? Which publics did they attempt to communicate with, and which did they marginalize or exclude? What was their approach to environmental politics and environmental crises? Since it is unlikely that either figure situated his or her ethos in ways we now consider ethical, how can we situate them in relation to their audiences, and what might doing so tell us about them and the communities in which they worked and lived?

Answering these questions in regard to Leopold has, I believe, deepened our understanding of his work and his legacy, and situated him more fully in the discourse of his time. In our time, however, he can only be an ethos, a construction of image and language. But an ethos, as Nedra Reynolds reminds us, is a *haunt* – a place returned to, the *habit* in *habitat*. When we return to Leopold, let us also be haunted by the contradictions that made him fully human: his ability to connect and his tendency to exclude; the intimacy of his disclosures and his predilection for masks; his remarkable productivity and all he left for us to do.

Notes

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1. The idea of internal versus external motivators for sustainable living is a frequent point of discussion in the literature of environmental citizenship. See, for example, Connelly, Dobson, and Dobson and Bell.
 2. For more on the philosophical connections between Leopold and Darwin, see Callicott, “Hume’s Is/Ought Dichotomy.”
 3. See, for example, Leopold, “Natural Reproduction of Forests.”
 4. Leopold’s acknowledgment of his earlier position in “Thinking Like a Mountain” was spurred largely by his letters with Albert Hochbaum that opened this chapter. For more on Hochbaum’s influence, see Meine, especially 453-57, and Ulman.
 5. Some modern environmentalists have called loudly for a turn away from the kind of ecological purism recommended by Worster – for example, Nordhaus and Shellenberger, disused later in this chapter. For a direct refutation of Worster’s purism from the point of view of ecology and ecocriticism, see Phillips 47-50.
 6. William deBuys’s compelling book, *Enchantment and Exploitation: The Life and Hard Times of a New Mexico Mountain Range*, tells the complex history of land use in New Mexico and how it has proceeded from different cultural understandings of what land is for. J. Stokley Ligon, a colleague and friend of Leopold’s, wrote his own appraisal of New Mexico land use in his survey of the state’s game animals in 1927. Also see Chapter 2 of this dissertation for more on land and wildlife in New Mexico.
 7. In their foundational book, *Ecospeak*, Killingsworth and Palmer call this type the “scientific activist.” They identify Leopold as one of its earliest examples and note its current dearth, as well as its limitations, in modern capitalist democracy (51-100, 269-80).
 8. The Breakthrough Institute publishes the quarterly *Breakthrough Journal*. On its website, where much of its content is available, the journal characterizes itself as “[s]ituated at the intersection of modernization theory, pragmatism, and liberalism.” A recent article by Martin Lewis, further reviewed in this dissertation’s Conclusion, argues that most modern environmentalists of the global west are “eco-romantics” who “valorize indigenous people as natural stewards of the environment, and still believe that the soft-energy revolution is just around the corner.”
 9. Susan Jarratt also provides a reading of sophistic rhetoric that looks at its anthropocentric roots, which can be seen as an extension of W. K. C. Guthrie’s discussion of the rise of nomos, or human cultural laws and mores, over physis, or natural law seen as divine, in ancient Athens. See especially Jarratt 11, 41-2, and Guthrie 4-5, 21-25, and *passim*.

10. Halloran, along with many other rhetorical theorists, italicizes “ethos” presumably because it is meant to retain a strong hint of its ancient Greek meanings. I have chosen not to italicize it in this dissertation because “ethos” is an example of a rhetorical concept that has been mainstreamed in a positive or at least neutral way (unlike the word “rhetoric” itself, which has mostly pejorative connotations in its popular usage), and I wish to highlight its status as a commonly used, broadly understood term.

11. Both *ethoi* and *ethe* have been used recently as a plural for *ethos*. A search of three prominent journals in the field of rhetorical studies (*College Composition and Communication*, *Rhetoric Review*, and *Rhetoric Society Quarterly*) show roughly equal usage, with the most recent article (2012) using *ethoi*.

12. For a concise framework of the public/private distinction as it is defined across disciplines and historical traditions, see Weintraub.

13. A full history of the archive’s provenance, from which my description is drawn, is available on the University of Wisconsin’s Digital Collections website.

14. For a natural history of the Leopold land, see Flader, “Aldo Leopold’s Sand Country.”

15. Craig Waddell’s collection *And No Birds Sing* offers nine essays on a single figure, Rachel Carson, but the field has produced few monographs that dig deeply into the career of one person.

16. Complaints from Leopold’s men on the expedition, as well as assessments and investigation reports by his superiors, can be found in Leopold’s official Forest Service records located in the Leopold Papers (hereafter LP) series 11, microfilm reel 1.

17. The Pine Cone was meant to appear quarterly but did not always come out on schedule; four and a half years (the main run of the Pine Cone ended in July 1920, after which it was published intermittently until 1931) produced sixteen issues. It was usually published as a single newspaper-sized sheet folded once to produce four pages.

18. It should be noted that most articles in the Pine Cone lack by-lines. Curt Meine says that Leopold wrote most of the bulletin himself until some time in 1916 (549, note 13). A front-page story in its final issue (July 1931) gives a short history of the Pine Cone in which Leopold is largely credited for the entire enterprise (“The Pine Cone Resumes Publication After Lapse of Seven Years”). While it is hard to say with certainty who authored specific pieces, it seems reasonable to assume that Leopold wrote many if not most of them, and that he acted as the bulletin’s guiding hand for the entirety of its existence.

19. The articles are “Forestry and Game Conservation” and “The National Forests: The Last Free Hunting Grounds of the Nation.” National forests were eventually opened to

hunting. For more on Leopold's role and the long term effects of this policy, see Warren, especially 106-25.

20. Wildlife management, in fact, was not yet a recognized field of study, and would not be for nearly two more decades. Leopold would have much to do with its inception; see Chapter 3 of this dissertation.

21. The term "wild life" – rather than "wildlife," as it is now called – persisted into the 1930s. For more on the evolution of the term, see Chapter 3 of this dissertation, note 33.

22. Donald Worster's 2008 biography of Muir significantly complicates the conservationist-preservationist split, as well as the idea that Muir was strictly the latter. See especially chapters 10 and 14.

23. A long letter from Leopold to the District Forester dated 4 May 1910, when he had worked for the Forest Service for less than a year, is one of the earliest documents related to his activities with ranchers. In it he discusses the finer points of grazing allotments, such as when to grant and revoke permits. The Leopold archive contains an entire series of papers related to his time with the Forest Service in New Mexico. Much of these materials relate to grazing, particularly his many forest inspection reports.

24. The actual European system of land ownership and game laws was indeed oppressive. Aristocratic lineages of land ownership and the symbolic power of recreational hunting meant that the richest families owned the vast majority of good hunting grounds. Herman says, "In the nineteenth century, less than one Englishman in ten thousand was legally eligible to hunt. [...] If some hardy soul was bold enough to defy the law, he could expect to find coverts and pheasant preserves guarded by spring guns, mantraps, armed gamekeepers, and ferocious dogs" (247-48).

25. Spanish land grants were given to the earliest European settlers in the region and were honored by the Mexican government when it gained control of the area in 1821. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the United States promised to honor both Spanish and Mexican land grants, though Americans found ways to undermine those promises. See, for example, the story of the Las Trampas land grant in deBuys 175-92.

26. For more on the use of images of buffalo by conservationists, see Herman 241-42. For more on buffalo and Native Americans in Western art see Truettner 6, 18, 311-12.

27. Hornaday was a major force in the national conservation movement and his influence on the NMGPA and on Leopold cannot be overstated. He was the NMGPA's single largest private financial backer ("Sinews"); he was the only conservationist, national or local, cited among the numbered items comprising "Our Platform" in the Pine Cone's masthead; and he presented Leopold with the Permanent Wildlife Protection Fund's gold medal for wildlife conservation in 1917 (Leopold "Address"). For more on Hornaday and his role in American conservation, see Gregory J. Dehler's recent biography, *The Most*

Defiant Devil: William Temple Hornaday and His Controversial Crusade to Save American Wildlife.

28. See Warren 14 and Herman 141-58. Herman further notes the proliferation of women hunters and argues that the government paternalism advocated and enacted by conservationists undermined the masculine independence hunting was meant to uphold.

29. The history of the Jicarilla Apache in this chapter is drawn from *The Jicarilla Apache Tribe: A History, 1846-1970*, by Veronica Tiller, who is herself a member of the tribe.

30 In *Changes in the Land*, William Cronon shows how Native American stewardship in New England functioned as sustainable agriculture, forestry, and wildlife management, and the degree to which European colonists could not see them as such. See especially pp. 34-53.

31. For a recent account of this crisis from the standpoint of geologic time and human culture, see Elizabeth Kolbert's *The Sixth Extinction*.

32. The survey covered Michigan, Minnesota, Wisconsin, Iowa, Illinois, Missouri, Indiana, and Ohio.

33. The evolution of the new field can be traced through its name changes. When first coming into being it was called "game management," later becoming "wild life management," and finally "wildlife management." Leopold's title upon joining the University of Wisconsin faculty in 1933 was Professor of Game Management, but by 1939 he was the sole member of the Department of Wildlife Management (Meine 307, 396). Similarly, Leopold's second book, published in 1933, was titled *Game Management*, while the field's first journal is *The Journal of Wildlife Management*, first published in 1937. The change reflects a broadening sense of the conservation professional's responsibilities. Originally devoted to preserving and propagating shootable game, workers such as university and government researchers and field personnel soon turned their attention to all wildlife. In this chapter I will use "wildlife management" as the preferred term, but will revert to "game management" when describing activities before the name change that are more strictly focused on propagating animals for the purpose of hunting them.

34. The U.S. Biological Survey established a Division of Game Management, tasked with enforcing laws related to wildlife, in 1934, and the U.S. Department of Fish and Wildlife was established in 1940.

35. Donald Worster's *Nature's Economy* is the most famous book-length, humanistic account of ecology. In "From the Balance of Nature to the Flux of Nature," J. Baird Callicott provides a short and very readable history that serves in part to justify the modern relevance of Leopold's Land Ethic.

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36. As all these histories of ecology show, its primary early concern was with flora, though there was early attention paid to fauna and communities of flora and fauna.
37. Leopold could not have known just how risky it might have been to leave his government position: less than eighteen months later, in October 1929, the stock market crashed, ushering in the Great Depression.
38. SAAMI fellowships were at the Universities of Wisconsin, Minnesota, Michigan, and Arizona.
39. President Coffman is reported to have said, “the primary purpose of [Leopold’s] proposal is to promote the interests of the sporting arms and ammunition manufacturers; they want more quail so that more arms and ammunition can be sold. The University has no interest in the project for that purpose” (Hodson 11).
40. The individual state reports remained unpublished but are housed in the Leopold Papers archive.
41. Leopold and other wildlife writers of the time often turned to quail when writing about particular species because quail were among the first closely researched game animals. The two leading scholars on quail were Herbert Stoddard and Paul Errington. Errington was a SAAMI fellow hired by Leopold at the University of Wisconsin. For a concise description of the research of both, see Newton 133-36.
42. Unplanned developments like these are what led Leopold to say, in the above-quoted passage, that the hunting public generally had access to game that “accidentally persist[ed]” on farmland.
43. A “planting” occurs when a species is introduced into an environment where it did not previously dwell, or where it had once been but is no longer in evidence.
44. Rhetorical histories of science include Bazerman; Ceccarelli; and Gross, Harmon, and Reidy. Cultural histories include Foucault’s *The Order of Things*. Foucault says of the positivistic mindset, “[I]t seems to us, in fact, that we know all there is to be known about Classical knowledge if we understand that it is rationalistic, that, since Galileo and Descartes, it has accorded an absolute privilege to Mechanism, that it presupposes a general ordering of nature, that it accepts the possibility of an analysis sufficiently radical to discover elements or origins, but that it already has a presentiment, beyond and despite all these concepts of understanding, of the movement of life, of the density of history, and of the disorder, so difficult to master, in nature.” (303)
45. Less directly, states also benefitted, then as now, from hunting tourism generally and from taxes on sales of arms, ammunition, and other goods related to hunting.

46. A special fifth issue on bird-banding was published in 1928. My survey of *The Auk* will be discussed in more detail in the next section.

47. Incidentally, the secretary of the American Ornithologists' Union, sponsoring organization of *The Auk*, was T. S. Palmer, author of one of the above quoted government reports. Like Leopold, he inhabited both worlds as well.

48. It bears noting that the causes of cyclical variations in wildlife populations remain a mystery (Knight).

49. Leopold had used a similar technique in a 1918 *Journal of Forestry* article trying to persuade foresters of their responsibilities to and preparedness for wildlife management, explicitly developing the plant-crop/game-crop analogy by putting wildlife management in forestry terms. One sentence reads, "A proper game census should give us the number of head by species (stand estimates), a game distribution map (type map), data by unit areas on predatory animal damage (fire and insect damage), data on water, cover, and foods (soils and site qualities), and figures by unit areas on past annual kill (old cuttings)." (Leopold, "Forestry and Game Conservation," 406).

50. Gross, Harmon, and Reidy sampled "significant journals of science" in English, French, and German from 1655-1995 (235). Their nineteenth century sample included one article and two passages from *The Auk* (238); their twentieth century sample did not include *Ecology*.

51. Every issue of both journals comprises a main body section, where the articles are generally longer, followed by one or more sections with shorter notes and reviews. I looked at all the articles in the main body sections, reviewing 75 articles in *The Auk* and 84 in *Ecology*. I did not review conference proceedings, obituaries, notes from the editor, or any similar articles that were not primarily focused on reporting scientific findings.

52. Gross, et. al. note that in the twentieth century, even the early decades, they find "greatly increased emphasis on establishing facts and explanations by means of experiment as opposed to observation" (189). The absence of this tendency even in the more modern *Ecology* articles can be explained by the difference between laboratory sciences, on which Gross, et. al. focus, and field sciences, on which I have focused. Ceccarelli describes a schism between the two, whom she identifies as Mendelian laboratory geneticists and Darwinian field naturalists (15-16). Most if not all of the authors reviewed in this section, including Leopold, fit into the latter category.

53. There were such discussions in some *Auk* articles, but most did not have them.

54. Examples of the narrative I seek to complicate, in which Leopold builds a unified ethos of smoothly increasing rhetorical power until the end of his life, can be found in Nash (Chapter 11), Newton, Ulman, and Worster (Chapter 13). Meine's narrative is less smooth because it dwells on the deer irruption crisis in detail, but still defines the

Almanac, and particularly “The Land Ethic,” as a kind of telos to which Leopold’s other writings were ultimately directed.

55. See in particular the online Yale Project on Climate Change Communication, and the conclusion of this chapter.

56. Succinct explanations of the causes and effects of deer irruptions can be found in two of Leopold’s publications, “Deer Irruptions” and “The Excess Deer Problem,” both reviewed below. His unpublished “Report on A Game Survey of Wisconsin” provides additional historical context, especially 110-14.

57. Flader gives a detailed account of Wisconsin conservation politics surrounding the votes of the Commission and the Congress. Her narrative also extends well beyond the 1943 hunting season into Leopold’s subsequent years on the Commission until his death in 1948, and to the long-term ecological effects of the decisions made in the ‘40s. See 193-267.

58. For a modern critique of Malthus and Malthusianism, see “Malthus, the False Prophet.”

59. There is lively debate in the field of environmental ethics over Leopold’s status as a foundational figure due largely to the apparent dissonance between his positions on hunting and the culling of herds on the one hand, and his land ethic on the other. For views sympathetic to Leopold, see Callicott, especially *In Defense of the Land Ethic*, List, and Nelson. For less sympathetic views see Mallory and Schrader-Frechette.

60. A search in the *Access Newspapers* database with the search terms “Aldo Leopold” and “deer,” limited to Wisconsin papers in 1942-43, returned 13 results prior to the hunting season of November 1943. Though several expressed some skepticism about the potential effectiveness of the antlerless season, all 13 supported it and mentioned Leopold only in neutral or positive terms.

61. It might be argued that separating Leopold’s rationalistic deer irruption ethos from the multi-dimensional ethos of the *Almanac* essays is inappropriate, particularly since they appeared in the same publication. But, judging from the news coverage of the deer debates and the histories told by Meine and Flader, Leopold was widely known for his role in the deer irruption crisis, and little known for the short essays reviewed in this section (the exact opposite of his current legacy). The ethos he put forth in the latter would not have been sufficient to temper the one associated with the deer crisis in the public mind.

62. Both Crowley and Fisher provide genealogies of rationalism from their classical roots to their Enlightenment re-flourishing and into the twentieth century. Fisher is concerned with differentiating types of reasoning through the histories of what he calls technical, poetic, rhetorical, and logical discourses, and ultimately with relating them to narrative

rationality (see his chapters 1 & 2). Crowley is more focused on public rhetoric and democratic politics (see especially her chapter 2).

63. I must thank my colleague Valerie Kinsey for helping me make the distinction between deer as a natural and cultural resource.

64. There is no place properly called “Sand County.” Susan Flader’s essay, “Aldo Leopold’s Sand County” explains that there are several counties in central Wisconsin with sandy soil that is the result of glacial incursion and retreat in the last ice age. The Sand County title of Leopold’s posthumously published book was bestowed by his son Luna (Meine 524). I follow Flader in referring to Leopold’s land as being in the “sand country” of Wisconsin, or, more precisely, in Sauk County, Wisconsin.

65. Julianne Lutz Newton reports that Leopold, at the time of his death, was set to address the Ecological Society of America, of which he was president, at its annual conference in September (he died in April); that he was to give “a major talk on land health;” that he had drafted the first chapter of an ecology textbook; and that he had several unfinished manuscripts related to land ownership and land health (350).

66. It is noteworthy that Leopold offhandedly refers to “the Leopold shack,” almost as if he expects readers to understand what it is. The “Phenological Record” article was published in *Ecological Monographs*, founded in 1931 and itself published by the Ecological Society of America, which was not local to Wisconsin. It is possible that Leopold’s involvement with the ESA (he was elected president in 1947, the same year the “Phenological” article was published), and the number of guests who came to the shack account for his familiarity.

67. Leadership in Energy and Environmental Design (LEED) is a project of the United States Green Building Council intended to formalize and encourage sustainable building practices. “Platinum” is its highest level of certification.

68. On its website, the ALF states that its mission “is to weave a land ethic into the fabric of our society; to advance the understanding, stewardship and restoration of land health; and to cultivate leadership for conservation” (“About the Foundation”). It is a non-profit organization supported by donations and member dues, taking as its primary duty the management of the Leopold land, now encompassing 300 acres, and the Leopold Memorial Reserve, the 1,500-acre “buffer” around the original shack property (“Land Stewardship Programs”). The ALF offers trainings in forestry, watershed restoration, and other conservation projects, and sponsors a variety of environmental initiatives throughout Wisconsin.

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