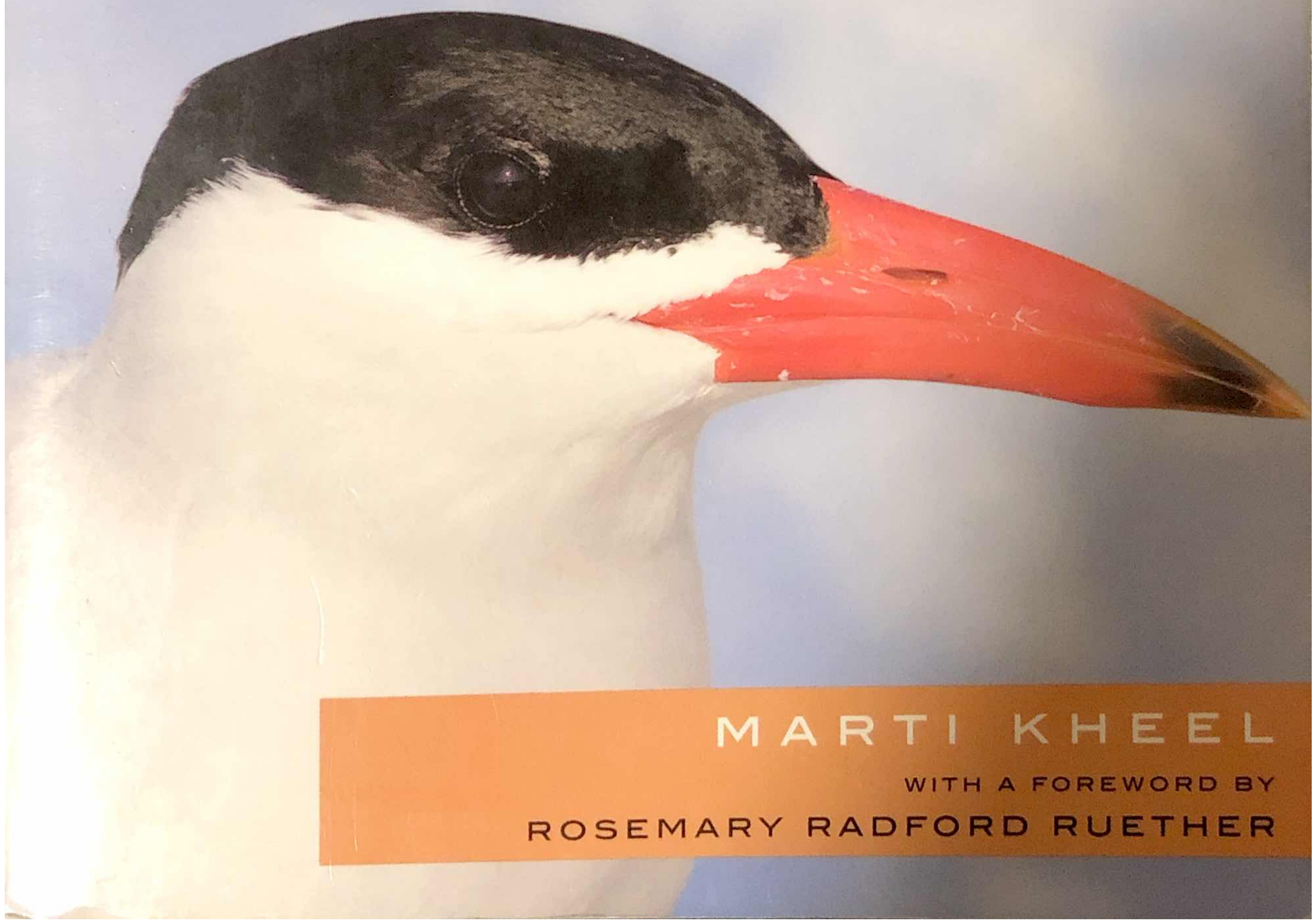
NATURE ETHICS

AN ECOFEMINIST PERSPECTIVE



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Thinking Like a Mountain or Thinking Like a "Man"?

> 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.
>
> Aldo Leopold
>
> *A Sand County Almanac and Sketches Here and There* (p. viii)

> Just short of the top I suddenly saw a large buck in a pine thicket about 50 yards up the hill, looking me over. I moved to avoid a bush, drew to the barb at point blank, and let fly. The unmistakable thud of the arrow striking flesh told me that I had hit.
>
> Aldo Leopold
>
> *Round River: From the Journals of Aldo Leopold* (p. 101)

INTRODUCTION

Aldo Leopold has been hailed as the founding "father" of environmental ethics[1] and as a "prophetic" voice for a radically transformed orientation toward the natural world.[2] His famous book, *A Sand County Almanac*, first published in 1949, has sold over a million copies and is considered by many to be the bible of the environmental movement.[3] His praises are sung in Earth First! journals, hunting magazines, conservation textbooks, and books on environmental philosophy. The new *ecocentric* worldview that he espoused

portrayed humans not as conquerors of the natural world, but as citizens of a biotic community that was deserving of love and respect.

In this chapter, I reassess the widespread view of Leopold. Did his ecocentric ethic demonstrate a genuine love and respect for *all* of life, or was Leopold's reverence reserved only for the larger biotic "whole" and the experiences that it produced? And did his philosophy represent a substantive break with the earlier ideas of the conservation movement, or, as I propose, was it merely a different manifestation of the masculinist orientation? In answering these questions, I argue that Leopold's lifelong love of hunting, with its masculine allure, was not incidental to his philosophy, but rather foundational to it.

LEOPOLD'S EARLY YEARS

Aldo Leopold's environmental writings span the first half of the twentieth century and reflect his own intellectual development, as well as the historical changes that were occurring during his lifetime. Educated at the Forest School of Yale University, Leopold was deeply influenced by Gifford Pinchot, first chief of the U.S. Forest Service, whose remorseful timber baron father had endowed the new forestry school. Upon graduation in 1909, in the aftermath of Theodore Roosevelt's sweeping legislative changes increasing the regulatory power of the government, Leopold joined the Forest Service. He held various positions until 1928, actively advocating for reform in the areas of wilderness protection, "game management," and soil erosion. In 1933 he became chair of the nation's first game management department at the University of Wisconsin, where he taught until his death in 1948.

In his early years, Leopold espoused the prevailing utilitarian philosophy among conservationists: maximum production of "resources" to yield the most happiness for the greatest number of humans. In contrast to *preservationists*, who sought to minimize human impact on land, the Pinchot-inspired conservationists sought to produce as much lumber as possible, without endangering future supplies.[4]

The model of resource efficiency inspired the establishment of the first United States department of natural resources, the Division of Forestry. Reflecting the utilitarian approach, the department was placed under the jurisdiction of the Agriculture Department. It was this agricultural model of resource extraction and production that inspired Leopold's ideas about regulating another "resource": game.

Managing "game" for increased "production" of deer was commonplace in Leopold's day. What distinguished his early philosophy was the development of this notion into a rigorous science. According to the novelist and historian Wallace Stegner, Leopold was not one of those "throbbing nature lovers who, as he said, write bad verse on birchbark. He was a scientist, one of the first to profess the new science of ecology."[5] One of the major goals of this new discipline was the production of "game" for hunters' maximum enjoyment.

The prevailing attitude among conservationists was that predators were "varmints" or "vermin" that needed to be exterminated in order to produce more deer for sport hunting and public enjoyment. Leopold viewed predators as impediments to this utilitarian objective. As the young Leopold commented, there could be enough "for sportsmen or for varmints, but not enough for both."[6] His advocacy for wilderness areas inhabited by native animals did not extend to large predators. Summarizing the current attitude of the day, Leopold commented, "Predatory animals are the common enemy of both the stockman and the conservationist."[7] As the historian Susan Flader observes, "He possibly did not think of *varmints* as wildlife, much less as game."[8] Leopold himself later reflected, "I personally believed, at least in 1914 when predator control began, that there could not be too much horned game, and that the extirpation of predators was a reasonable price to pay for better big game hunting."[9]

Influenced by years in the Forest Service, Leopold came to believe that the same agricultural principles used to manage forests could be applied to the management of "game" animals. Summarizing successful conservation principles, Leopold maintained that game was to be a "major forest product."[10] Having defined animals as a crop, the "all-important question" for Leopold was "how to grow it."[11] Restrictions and protections for game animals by means of laws, refuges, and predator control, although valuable, were insufficient. This strategy of constraints, according to Leopold, needed to be supplemented by a policy of replenishment. Just as the Forest Service regarded timber as a renewable resource that could be managed to produce harvests on a sustained yield basis, Leopold argued that "wild" deer, like crops, could be similarly sustainably "harvested." As Susan Flader points out, Leopold compared

> protection against predatory animals and illegal kill to fire protection and timber trespass cases, breeding stock to growing stock, hunting demand to timber market, limitation of kill to limitation of cut, game laws and license fees to sale contracts and stumpage rates, natural increase and artificial restocking to natural reproduction and planting, and so on.[12]

The Department of Game Management, according to this model, should determine the carrying capacity of a designated area and calculate the quantity of deers that could be produced and harvested in a given range.[13]

In the early decades of the twentieth century, Leopold's advocacy for the establishment of refuges was also founded upon the agricultural paradigm. Today he is widely praised for having established the Gila refuge, one of the first wilderness preserves. But it is important to understand that a major motive for the preservation of this and other reserves was to create well-stocked hunting grounds. The game refuge, as he conceived it, was to be not so much a place for the protection of animals from hunters, but rather a breeding ground for producing an outflow of game for sport hunting. This was to be accomplished through the provision of food, plants, water, fences, and salt in carefully demarcated boundaries, which were established in such a way that the surplus "stock" would wander onto the hunting grounds that surrounded the refuges.[14] It was also to be free of "vermin."

Sport hunting was central to Leopold's ideas about game management and wilderness. Leopold viewed Park Service land, where hunting was prohibited, as a place where people came for the superficial experience of viewing pretty scenery. By contrast, he envisioned the national forests as recreational "play-grounds" or "shooting grounds" where all men could re-create the wilderness experience.[15] In describing his democratic goal for the creation of wilderness areas in the Southwest, he asserted his hope of establishing the last free "wilderness hunting ground" in the nation."[16] As Callicott notes, Leopold hoped to "preserve a few relics of the American frontier in which he and like-minded sportsmen might play at being pioneers."[17] Reflecting this perspective, one of his suggestions for a name for the Gila Wilderness Area was the "Gila National Hunting Ground."

THINKING LIKE A MOUNTAIN OR THINKING LIKE A "MAN"

It is often maintained that Leopold had an early conversion experience which profoundly altered his attitudes toward hunting and predators. This belief is founded upon Leopold's account of an incident that occurred during a hunting expedition in the American Southwest. In a well-known essay entitled "Thinking like a Mountain," he described his encounter with a mother wolf at play with her grown pups. In his youthful exuberance, Leopold and his hunting companions shot randomly, wounding one pup and the mother wolf. As the mother wolf lay dying, she reached out for his rifle in a last act of defiance.[18] At that moment, Leopold writes that he had a sudden revelation:

> We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunter's paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.[19]

Like the biblical story of Saint Paul's sudden conversion to Christianity, Leopold's hunting experience is often portrayed as an epiphanic "conversion" to ecological thought. Reflecting a common perception, Stephan Harding writes, "For Leopold, the experience was of sufficient intensity to trigger a total re-orientation in his life's work as a wildlife manager and ecologist."[20] And as Ruth Rosenhek writes, after this incident, "the 'hunter' was transformed to 'naturalist.'"[21]

These accounts of Leopold's transformation might give the impression that after that fateful day, Leopold laid down his rifle and never hunted again. The change in Leopold's thought, however, did not occur as an immediate metamorphosis, but rather as a slow evolution; moreover, the change in his attitude did not extend to all animals, but only toward predators. What Leopold fails to mention is that the event in question occurred some thirty years before he wrote about it, and that he continued to hunt for the rest of his life.[22]

Leopold goes on to describe his new attitude toward predators in what was to become a classic statement: "The cowman who cleans his range of wolves does not realize that he is taking over the wolf's job of trimming the herd to fit the range. He has not learned to think like a mountain. Hence we have dustbowls, and rivers washing the future into the sea." Leopold concludes, "I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer."[23]

Nonetheless, Leopold continued to campaign vigorously against predators for many more years. According to Leopold's biographer Curt Meine, it was not until 1925, some sixteen years after his encounter with the dying wolf, that Leopold began to tentatively question his belief that the only good predator was a dead one, and even then he continued to refer to large predators as "vermin." Leopold's utilitarian focus on the production of "game" animals also persisted. As Meine comments, Leopold "would not rush to conversion."[24] As late as 1933 he wrote in his classic work on wildlife ecology and game management, "Game management is the art of making land produce sustained annual crops of wild game for recreational use."[25] And in 1934 he wrote in his submission to the Wisconsin regional plan report that the "acid test of the sufficiency of a conservation system" is the "production of a shootable surplus."[26]

Why then did Leopold use the story about hunting the wolves to imply a shift in his attitude? Historically, the narrative structure of "The Hunt" has

lent itself to stories and myths of a journey into the wilderness, culminating in a dramatic confrontation.[27] In many cultures hunting stories serve as coming-of-age allegories. Typically, the death of the animal symbolizes the metaphorical annihilation of the young man, paving the way for rebirth into a mature identity, separate from the female world.[28] In a similar manner, hunting functions in Leopold's narrative as a death and rebirth into a new, mature philosophy. The "death" of his previous ego-centered worldview gives way to a broader regard for the ecological community. The actual death of the individual wolf is reduced to a psychological prop, a vehicle for the birth of his ecological philosophy.

The development of Leopold's ecological worldview, however, was far less dramatic than his hunting story suggests. His ecological awareness evolved over the course of many years, as he witnessed the failures of the predator control policies.[29] The real watershed events that appear to have influenced Leopold's final transition toward an ecological worldview took place more than twenty-five years after the death of the wolf.

In 1935 he went to Germany, where he saw the devastating impact of forest over-management. Lamenting the consequences of German "cubistic forestry," he noted that trees had been aligned in parallel rows, and creeks and rivulets had been straightened. An overpopulation of deers, caused by the "near extirpation of predators," had created additional degradation to the land.[30] As Leopold noted, "to the critical eye, there is something lacking," namely "wildness."[31] In 1936 and 1937 Leopold traveled to the Rio Gavilan region of Mexico. There he had the opportunity to see an ecologically intact landscape as yet undisturbed by human manipulation. Leopold was already familiar with the ecological problems produced by over-logging and over-grazing in the American Southwest. It was in light of these successes and failures in conservation management that Leopold's attitudes about predators and conservation practices gradually evolved. As Susan Flader points out in her detailed analysis of Leopold's changing attitudes toward predators, the impetus for his change in views emerged from practical considerations about the vital role of predators, not ethical concerns about their individual well-being.[32]

Nonetheless, the myth that Leopold underwent a dramatic transformation as a consequence of the hunting incident persists. Leopold's story has been interpreted as a confession of sin, followed by repentance and the adoption of a new faith. A number of Earth First! activists have made a moral fable of Leopold's hunting story, suggesting in their road shows and wilderness gatherings that the wolf calls out to humans to repent for their destructive activities and defend the Earth.[33] These followers of Leopold see in his story the intimation of a communication with wolves. What they fail to notice, however,

is that Leopold assumes the perspective of the *mountain*, not that of the wolf. The lesson that Leopold learns from the hunting incident is neither empathy with the mother wolf nor compassion for the orphaned pups, but rather one about the importance of an ethic that transcends the individual inhabitants of the mountain community.

If Leopold, in fact, felt remorse for the death of the wolf that he killed in his youthful exuberance, he does not reveal it in his account. What emerges first and foremost in this oft-quoted essay is a concern for the prospect of a world devoid of the *species* "wolf." Although the hunting story hints at feelings of regret for killing the wolf, the lesson that Leopold draws from the incident is of a more detached, scientific nature.

In the latter part of "Thinking like a Mountain," Leopold describes his transformed worldview, using the image of a mountain to suggest an "objective" understanding. From the mountain's perspective, predators, such as wolves, are of vital importance for preventing overpopulation of deer. As he states poetically, "Only the mountain has lived long enough to listen *objectively* to the howl of the wolf" (emphasis added).[34] Although Leopold's use of poetic imagery implies an empathic connection with nature, once again a careful reading suggests another interpretation. Leopold does not call for an empathic identification with the wolf, but rather for an objective, long-range, species-based evolutionary view, which only the mountain can metaphorically "understand." He does not encourage the reader to *feel like* the wolf, or to *feel with* the wolf, but rather to *think like* a mountain. The pivotal message of the essay is not a plea for compassion for nature and, in particular, wolves, but rather a call for a more impartial ethic, symbolized by the mountain.

Leopold's imagery of mountains suggests a spiritual theme. Mountains are often used to reflect the religious motif of otherworldly transcendence.[35] From the apex of the mountain, one can look down upon all of creation with a God's-eye view of the earth. And from the earth, one can look toward the heavens and contemplate the soul's ascent. Both vantage points suggest the theme of transcendence that encompasses a greater "whole." Leopold uses the term "mountain" as synonymous with range, symbolizing the whole earth community. He might have called his essay "Thinking like a Range," or "Thinking like a Valley." However, these ecological communities did not lend themselves to his transcendent vision.

Leopold's exhortations about the importance of assuming the transcendent perspective suggests a parallel with the Jewish and Christian traditions' mandate to worship the Creator rather than the Creation. According to this directive, God is seen as the source of all life, so God should be worshipped rather than God's creations. Similarly, Leopold elevated the ecosystem over and above the individual inhabitants of the land, which he saw as its products.

Leopold's killing of the wolf also suggests another spiritual theme: animal sacrifice. As previously discussed, Nancy Jay argues that ritual sacrifice, which is universally performed by men, seeks to replicate the birthing process on a purportedly superior, spiritual plane. Men seek to transcend their own mortality through the act of killing, claiming allegiance to a timeless patrilineal brotherhood that connects them to past and future generations of men. Similarly, Leopold's killing of the wolf gives birth to a worldview that forges a cross-generational link with past and future generations of men, symbolized by the mountain.

The story behind the publication of Leopold's *A Sand County Almanac* provides insight into his beliefs about the process of developing ecological wisdom. The book was originally conceived as a series of thirteen topical essays to provide a forum for "ecological preachment." A former student and the prospective publishers of his book influenced him, however, to insert himself into his writings by adding personal anecdotes. The student suggested that Leopold's argument would be more powerful if he showed through personal narrative how his own attitude had changed. Leopold finally accepted the narrative approach after the publishing company Knopf rejected his book, urging him to use more narrative and less preaching.[36]

The final version was divided into three sections. The book began with personal stories, many about hunting in various seasons at his family retreat, a "shack" in "Sand" (actually Sauk) County. The second section contained discursive essays, set in various parts of North America. The final section was composed of four didactic pieces of a more personal nature on conservation, wildlife, and wilderness. Leopold originally intended "The Land Ethic" to be the first of the four final essays that would set forth his principles, from which the other essays were to follow. The editors who assembled the book posthumously, however, chose a more inductive approach. They placed "The Land Ethic" at the end, thereby giving the impression that his ecocentric worldview developed from his personal experiences. The repositioning of the essays also changed the final sentence of the book, which was to have been, "It is only the scholar who understands why the raw wilderness gives definition and meaning to the human enterprise."[37]

Leopold's preferred order for the chapters and his comments on the scholar suggest that he believed moral conduct toward nature emerged not from personal experience but from a conceptual understanding of one's environmental origins. As he explains, the scholar "appreciates that all history consists of successive excursions from a single starting point, to which man returns again and again to organize yet another search for a durable scale of values."[38] This "starting point," according to Leopold, was found in raw wilderness. It is out of this cognitive perspective that the land ethic emerges.

THE HOLE IN LEOPOLD'S HOLISM

Leopold is frequently praised as the first environmental philosopher to argue for the "biotic rights" of all life. Most of these accolades, however, ignore his lifelong penchant for hunting. The discrepancy between Leopold's stated beliefs and his actions raises the question, to whom were these "rights" accorded? Before answering this question, it is helpful to review Leopold's holist philosophy. In his early writings, he espoused a form of holism inspired by the mystical ideas of the Russian philosopher Peter Ouspensky's *Tertium Organum*.[39] Ouspensky had advanced the idea of the earth as a conscious, living organism of interdependent parts. In a posthumously published essay Leopold writes, "Possibly, in our intuitive perceptions, which may be truer than our science and less impeded by words than our philosophies, we realize the indivisibility of the earth—its soil, mountains, rivers, forests, climate, plants, and animals, and respect it collectively not only as useful servant but as a living being."[40]

It was not until ten years later that Leopold wrote explicitly about the ethical dimension of conservation. This time, however, he expressed his holist ideas in the language of ecology. The spiritual holism that was implicit in Ouspensky's thought had been consistent with the prevalent view of ecology during Leopold's early years, in particular F. E. Clement's idea of a "climax community" which operated much like a living being. Callicott suggests that Leopold may have abandoned the organism analogy for the idea of nature as a community under the influence of ecologist Charles Elton's concept of nature as a community of producers and consumers. Possibly he turned to the community conception of nature because it was more consistent with Darwin's idea that the moral sense derives from social instincts.[41] Leopold's concept of the community, however, tended to emphasize its singular aspect, rather than the notion of an aggregation of individuals. As Callicott suggests, by the late thirties and forties Leopold's writings show the influence of British ecologist Arthur Tansley's model of nature as an energy circuit, coursing through a single "ecosystem." But whether he endorsed the model of the land as a single organism, a community of interdependent life forms, or a single ecosystem, Leopold's moral philosophy was directed toward the larger biotic community rather than to individual beings.

The belief that Leopold extended "rights" to all life stems from a few key passages in his writings. In his 1947 essay, "The Land Ethic," he wrote of soil, waters, plants, and animals that a land ethic "affirm[s] their right to continued existence, and, at least in spots, their continued existence in a natural state." Further, "a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies

respect for his fellow-members, and also respect for the community as such."[42] An examination of Leopold's choice of terms, however, reveals that he did not believe in the right to life of all *beings*, but of all life *forms*.[43] The other-than-human "citizens" of his biotic community were species and ecological processes. Leopold collapsed individual beings into these larger, abstract constructs. Early in his career he explained that he referred to "timber, water, forage, farm, recreative, game, fish, and esthetic resources" as "The Forest."[44] Not only are individuals excluded from direct moral consideration in Leopold's land ethic, but their well-being can be sacrificed for the benefit of the whole. As Callicott remarks, "The land ethic, thus, not only has a holistic aspect; it is holistic with a vengeance."[45]

Leopold often referred to the importance of preserving "remnants" of all species. He wrote that "every remnant should be definitely entrusted to a custodian—ranger, warden, game manager, chapter, ornithologists, farmer, stockman, lumberjack."[46] Today, the idea of preserving "remnants" of all species is commonplace, codified in the 1973 Endangered Species Act. Leopold's early writings on this subject provide insight into some of its central psychological underpinnings. Species, for Leopold, had a symbolic value that transcended the physical realm. In his more philosophical discussions, he called wildlife "noumena," suggesting the influence of both Ouspensky and Kant. According to Callicott, Leopold's noumena differ from Kantian ideas in that they are "actual or physical (and, therefore, strictly speaking, phenomenal)."[47] But it is the noumena, or species, that have "rights" in Leopold's philosophy, not individual beings. Thus, in a real sense, his worldview did not make room for individual beings. He regarded each species as symbolic of a deeper meaning, available only to those who were ecologically literate and could "read" the language of nature. For example, a crane had a special significance to a Wisconsin homesteader as a symbol of his untamable past and evolutionary history.[48]

Leopold summarized the holist foundations of his philosophy in a frequently cited 1948 article in *A Sand County Almanac*: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."[49] Although the values of integrity and stability were consistent with the emerging field of ecological science, the idea that "beauty" should be a standard for assessing environmental conduct was novel within the scientific community of his time. Philosophers, historians, and scientists have often praised Leopold for this emphasis on aesthetic concerns over a base economic view of nature. What most scholars fail to mention, however, is that for Leopold hunting itself was an aesthetic activity akin to art. Not only did sport hunting not detract from the "beauty, integrity, and stability" of the biotic community, it actually enhanced it. Leopold's core values were interconnected components that characterize a healthy *land*, not individual beings. By "health of the land," Leopold meant the "capacity of the land for self-renewal." As long as the larger ecosystem was able to renew itself, it met Leopold's standards of beauty. The capacity for "self-renewal" of particular, individual other-than-human animals had no bearing on his idea of beauty.

Leopold's views on respecting nature's capacity for self-renewal derived from his ideas about good agricultural and wildlife "husbandry" and the psychological benefits that such management would yield. While earlier conservationists emphasized the idea of manipulating nature's fertility for material gain, Leopold's definition of good husbandry reflects an appreciation for the nonmaterial qualities of nature, preeminently its regenerative capacity. Leopold often emphasized the idea that wildlife husbandry will reap its own psychological rewards. Focusing on the enjoyment derived from hunting, he states, "We foresters and game managers might logically pay for, instead of being paid for, our job as husbandmen of wild crops."[50] Though he denounced a materialistic orientation toward nature, Leopold never fully relinquished the utilitarian agricultural paradigm he learned in his years with the Forest Service. Other-than-human animals were a "crop," which with proper husbandry would yield psychological rewards. It is the quantity of lives taken and the manner in which they are killed that is morally relevant for Leopold, not individual beings themselves.

Leopold's agricultural model of wildlife husbandry is intimately tied to his notion of species preservation. Species must be preserved because they help to replenish the supply of wild game. If a species goes extinct, the wilderness loses part of its reproductive capacity.[51] As Leopold argues, "Wilderness areas . . . provide an opportunity to produce and hunt certain kinds of game, such as elk, sheep, and bears, which do not always 'mix well' with settlement."[52]

SPORT HUNTING AND THE DEVELOPMENT OF THE ECOLOGICAL CONSCIENCE

Many of Leopold's ideas about sport hunting bear a striking similarity to those of Theodore Roosevelt, differing primarily in their emphasis. Some of these similarities include a belief in the value of sport hunting as a symbolic, Darwinian-styled contest with wilderness; its role as a passage into manhood; its value as a skill that contributes to the development of individual, national, and racial character; and its importance as a playful re-creation of the frontier experience. Leopold departed from his forerunner primarily in his ecological

insights, as well as his greater emphasis on the insufficiency of an ethic based only upon rules and regulations designed to restrain aggressive conduct. Although he wrote about the value of hunting as sport, he also emphasized the idea of hunting as a form of play and artistic expression, both of which he viewed as vital components of the wilderness experience.

For Leopold the urge to hunt is both a biological drive and a natural means of expressing "man's" inherent aggression.[53] As he argues, the desire for hunting "lies deeper" than outdoor sport:

> The instinct that finds delight in the sight and pursuit of game is bred into the very fiber of the race. Golf is a delightful accomplishment, but the love of hunting is almost a physiological characteristic. A man may not care for golf and still be human, but the man who does not like to see, hunt, photograph, or otherwise outwit birds or animals is hardly normal. He is supercivilized, and I for one do not know how to deal with him.[54]

Leopold believed that this "natural" drive to hunt functioned as a safety valve for men's aggression. If suppressed, the "vacuum" created might be filled with something that was "not necessarily . . . better."[55] So convinced was Leopold of the instinctive nature of the hunting drive that he contends, "A son of Robinson Crusoe, having never seen a racket, might get along nicely without one, but he would be pretty sure to hunt or fish whether or not he were taught to do so."[56] Leopold therefore demands that "game and wild life be one of the normal products of every farm, and the enjoyment of it a part of the normal environment of every boy."[57] Saving wilderness, for Leopold, was thus a way of ensuring that his sons would have the opportunity to exercise this right. As he states, "I have congenital hunting fever and three sons . . . I hope to leave them good health, an education, and possibly even a competence. But what are they going to do with these things if there be no more deer in the hills, and no more quail in the coverts?"[58] As ecofeminist writer Chaone Mallory points out, however, two of Leopold's five children were female. Apparently, the "deer in the hills" were the birthright of only his sons.[59]

For Leopold, the opportunity to exercise the hunting instinct was a democratic right, not simply a "rich man's privilege."[60] And it was the purpose of game management to ensure that this prerogative was conferred. Just after Leopold discusses the inalienable right to the free exercise of the "normal" instinct to hunt, he goes on to lament that "the men who are destroying our wildlife are alienating one of these rights, and doing a terribly thorough job of it."[61] Wildlife must be conserved not because of the animals' right to life, but rather because of "man's" inalienable right to hunt and kill.

Leopold thus assumes the inherent right of humans (or, more particularly, men) to fulfill their aggressive drives through hunting. However, he also argues that ethical conduct is a matter of regulating this inherent right. Leopold expands on the idea of ethics as a form of restraint:

> An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from anti-social conduct. These are two definitions of one thing.[62]

For Leopold, however, sport hunting was not simply a matter of biological expression but also cultural expression. He viewed it as a cultural advance, which contributed to the moral improvement of the human race. As he writes,

> Physical combat for the means of subsistence was, for unnumbered centuries, an economic fact. When it disappeared as such, a sound instinct led us to preserve it in the form of athletic sports and games. Physical combat between men and beasts was, in like manner, an economic fact, now preserved as hunting and fishing for sport. Public wilderness areas are, first of all, a means of perpetuating, in sport form, the more virile and primitive skills in pioneering travel and subsistence.[63]

Inspired by Darwin's ideas on the evolutionary development of morality, Leopold argues that sport hunting was an evolutionary advance that contributed in positive ways to a land ethic or ecological conscience. Although Darwin is best known for his ideas of competition within nature and survival of the fittest, he also developed a theory of the origins of the "social instincts." It was this notion that seems to have had a formative influence on Leopold. According to Darwin, with the advance of civilization, humans developed an increasing capacity to extend their "social instincts" and "sympathies" to ever-expanding groups of people—first from tribes to nations, and finally to "men of all nations and races."[64] The shift to altruism is fully consistent with the struggle for existence in this view, since it represents awareness that cooperation fosters reproductive fitness.

The development of the social sympathies and the attendant expansion of ethical concern, according to Leopold, required that "man's" inherent aggressive drives have a means of expression, albeit in a restrained and regulated manner. "An individual's instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate (*perhaps in order that there may be a place to compete for*)" (emphasis added).[65] Sport hunting thus was not only an ideal outlet for "man's" aggressive drives but also for his drive toward cooperation and self-control. He writes,

> Some can live without opportunity for the exercise and control of the hunting instinct, just as I suppose some can live without work, play, love, business, or other vital adventure. But in these days we regard such deprivations as unsocial. Opportunity for exercise of all the normal instincts has become to be regarded more and more as an inalienable right.[66]

Roderick Nash captures the idea of restraint in Leopold's philosophy, stating that for Leopold, "ethics applied to situations where a person who could have done a particular action held back because he knew that action was wrong."[67] But instinctual drives, according to Leopold, could not be repressed, only rechanneled in appropriate ways. What Leopold seems to be suggesting in the above passages is not only that the biotic community must be preserved in order to preserve the inalienable right to hunt, but that it *cannot* be preserved without the safety valve that hunting provides for "man's" aggression.

The conception of sport hunting as a matrix for the development of the social instincts is intimately tied to Leopold's notion of ecological conscience. The early conservationists relied on external laws and regulations to govern their conduct. But the true sportsman went beyond external constraints and relied on his "ecological conscience." According to Leopold, although it was "an honor" to attain a reputation as "a keen and successful sportsman," it was "a doubtful compliment at best" if it was founded upon always getting one's limit of game.[68] As he emphasizes, the hunter, who has only himself as an audience, "has no gallery to applaud or disapprove of his conduct" other than his conscience. Leopold argued that "it is difficult to exaggerate the importance of this fact."[69] Elsewhere he elaborates on the value of sport hunting for the development of this personal code of honor:

> Hunting for sport in its highest form is an improvement on hunting for food in that there has been added, to the test of skill, an ethical code which the hunter formulates for himself and must often execute without the moral support of bystanders. In these cases the surviving sport is actually an improvement on the receding economic fact.[70]

Leopold was deeply influenced by his father's hunting philosophy. As biographer Curt Meine notes, Carl Leopold adhered to a well-developed personal code of sportsmanship: never lose a "downed bird," never hunt after the sun goes down, and set your own bag limit, which sometimes meant foregoing a shot at a particular species.[71] Leopold learned from his father's example the importance of setting his own limits. Compassion for the animals he hunted, however, does not appear to be his foremost concern, but rather adherence to the sportsman's code, premised on the idea of a fair contest with the hunted animal. If the animal is shot indiscriminately, no moral value can accrue to the hunter. The moral and spiritual development of character *requires* self-limitations. By imposing limits on oneself, one achieves the greatest spiritual value, known only to the hunter and God.

Leopold argued that the sport hunter's reliance upon conscience produced a unique spiritual value—"the ethics of sportsmanship is not a fixed code, but must be formulated and practiced by the individual, with no referee but the 'Almighty.'"[72] This conceptualization of sport hunting as a form of spiritual communion with "the Almighty" or with one's higher power suggests the Protestant idea of individual communion with God. The good sportsman moves beyond reliance upon external forms of authority to engage in a personal communion with God, manifested as his conscience.

Leopold advances the idea of ecological conscience as a progressive development over previous attitudes, which relied only upon "the letter" of the sportsman's code. According to Leopold, "Nothing so important as an ethic is ever 'written.' Only the most superficial student of history supposes that Moses 'wrote' the Decalogue; it evolved in the minds of a thinking community, and Moses wrote a tentative summary of it for a 'seminar.'"[73] Similarly, Leopold argued that farmers should move beyond passive reliance upon government intervention by developing a personal relation to their land through the creation of their own "wilderness" areas. He admonished, "Subsidies and propaganda may evoke the farmer's acquiescence, but only enthusiasm and affection will evoke his skill."[74]

Leopold's emphasis on the importance of developing "enthusiasm and affection" suggests that he had moved beyond an instrumental relationship to nature. Once again, however, Leopold's understanding of emotional ties was limited. In the same address he underlines the importance of private land preservation for sport hunting, lamenting that one reason for "injured pride and family scrutiny" was the absence of a "coon hunt" in season on one's property.[75] Clearly, Leopold's ecological conscience did not extend to the individual animals whom he killed. It dictated only *how* sport hunting should be conducted.

SPORT HUNTING AND THE RE-CREATION OF WILDERNESS

Leopold's early writings reveal that his motivation was not concern for ecology, but rather for a recreational experience found in the adventure of hunting. Like his predecessor Roosevelt, he valued wilderness as an arena for the enactment of a symbolic contestation with the "wild" and as a link with the American pioneering tradition. The word *wilderness* derives from the Old English *wilddeor*, meaning "wild beast."[76] Beneath Roosevelt and Leopold's efforts to preserve wilderness lurks the specter of the Wild Beast. For both conservationists, sport hunting represented the symbolic defeat of the menacing Beast, whose death ushered in "civilization." Just as Pinchotian foresters sought to maximize the amount of timber extracted from the forests, so too, the early Leopold sought to extract the maximum amount of sport hunting adventure from the wilderness.[77]

The possibility for reversion to an earlier "primitive" experience was what mattered most to Leopold. Small areas of "wilderness" were needed in the midst of more modernized regions to afford humans a chance to revert to their primeval roots. Just as masculine identity is established by means of a conceptual opposition to women, so too civilization is established through its opposition to the "wild." Without the contrast provided by our primitive roots, humans risk losing the raw material that makes human civilization possible. As Leopold writes in a 1925 article, Americans should

> preserve a sample of the Covered Wagon Life. For after all, the measure of civilization is in its contrasts. . . . And if, once in a while [the city man] has the opportunity to . . . disappear into the wilderness of the Covered Wagon Days, he is just that much more civilized than he would be without the opportunity. It makes him one more kind of a man—a pioneer.[78]

Part of the value of wilderness experience was found in its association with exploration and the "conquest" of "unknown places."[79] Leopold worried that with the vanishing number of unknown places, humans (and in particular, his white racial stock) would lose opportunities for adventure. In his later years, although Leopold increasingly emphasized the scientific value of wilderness areas, the association of wilderness with adventure can still be detected. Wilderness "laboratories" offered the same sense of adventure into the unknown that his hunting expeditions afforded. Preserving these laboratories was another way of safeguarding the adventure of the "wild."

Seeking to retain the primitive aspect of the wilderness experience, Leopold inveighed against an excessive reliance upon transportation to remote areas. He wished to protect the forests not from development, but from overdevelopment and, in particular, overmechanization. In Leopold's view, roads, motorized transport, hotels, cottages, and graded trails interfered with the aesthetic appreciation of nature. In a 1932 essay he explained, "When I go birding or hunting in my Ford, I am devastating an oil field, and re-electing an imperialist to get me rubber."[80] What Leopold failed to notice, however, is that when he was hunting in the wilderness, with or without his Ford, he was also devastating individual lives.

Leopold abhorred the over-reliance on machinery, which he viewed as an "adulteration" of sport hunting. In his later years he became an enthusiastic bow-hunter, believing that bow-hunting better approximated the primitive aspect of the hunting experience. Once again, however, Leopold failed to appreciate the impact of his actions on individual animals. Bow-hunting has been shown to inflict greater suffering on its targets, causing crippling and slow, agonizing deaths.[81]

Not concerned w/ indiv. animals

In his later years, Leopold increasingly embraced a scientific approach, arguing that wilderness was also necessary as a "base-datum of normality, a picture of how healthy land maintains itself as an organism."[82] For Leopold, wilderness represented the "most perfect" norm of health, due to its long-range stability. Thus, each biome should have a wilderness preserve that could serve as a model of health; deviations from this norm then could be used as a "benchmark" for the "impact of land-use technologies."[83]

Leopold also increasingly emphasized the cultural value of preserving wilderness, pleading for "the preservation of some tag-ends of wilderness, as museum pieces, for the edification of those who may one day wish to see, feel, or study the origins of their cultural inheritance."[84] Like Theodore Roosevelt before him, Leopold believed that wilderness was a national heritage to be preserved for the welfare of future generations of Americans. But who, precisely, was to inherit this investment, and why was it important that they inherit it?

Leopold repeatedly answers these questions by underscoring the importance for young boys of recapturing the frontier experience through sport hunting, arguing that it provides a vital link between present day youth and their virile ancestors. The urge to revive the past is not just a matter of bringing the past into the present, but also a way of linking the past to the future. Leopold develops the notion of "revival" in his statement that "the trophy-hunter is the caveman reborn." He goes on to assert that "trophy-hunting is the prerogative of youth, racial or individual, and nothing to apologize for."[85] Thus, for Leopold, public wilderness areas provide an important means for accomplishing this transfer of manly virtues. They are essential for "allowing the more virile and primitive forms of outdoor recreation to survive the receding economic fact of pioneering."[86] Like sacrifice, sport hunting served to symbolically link a community of boys and men across the generations.

Race

It was not *all* males who were to be linked into this community, however; rather only white Anglo-Saxon American men. Like Roosevelt, Leopold believed that the American frontier had helped to forge the unique American character. He writes that "coupled with . . . our racial stocks, it is the very stuff America is made of."[87] To destroy this environment was therefore tantamount to racial suicide. As he elaborates, "Anthropologists tell us that we, the Nordics, have a racial genius for pioneering, surpassing all other races in ability to reduce the wilderness to possession."[88] Susan Schrepfer observes that, by preserving wilderness, Anglo-American men were realizing a "racial imperative to emulate their fathers."[89] Sport hunting was the quintessential activity that symbolized this racial link with their forefathers.[90]

While Leopold believed that sport hunting's rules and regulations transformed its "primitive" aspect into a racially superior cultural activity, a number

of theorists point to commonalities between the rules of sport hunting and the forms of traditional ritual.[91] As discussed earlier, hunting stories in many cultures have functioned as rebirth narratives. In addition, as Ingeborg Flugel pointed out in an early psychoanalytic journal, killing animals in a ritualized manner and in certain seasons is consistent with totemic thinking.[92] While killing a totem animal is typically considered taboo in tribal cultures, at designated times totem animals may be sacrificed in prescribed ways. In a comparable manner, sport hunting conservationists followed particular rules for how and when animals could be hunted.

The profession of "love" and "respect" in the context of killing the hunted animal also suggests the notion of a ritual sacrifice. Although Leopold's plea for sport hunting to move beyond formal laws implies that he rejected the mere ritualistic or formalistic aspect of sport hunting, his emphasis on the paramount importance of attitude suggests, rather, that the hunter's conduct concerning the kill be inspired from within. The rules and regulations were not to be abandoned, but rather internalized through an emotional connection to the "land." A disrespectful attitude, according to Leopold, desecrated the hunting experience, reducing it to an expression of base biological or economic motives.

Leopold recognized that sport hunting contained elements of both fantasy and play. He claimed that "along with the necessity for expression of racial instincts there happily goes that capacity for illusion which enables little boys to fish happily in wash-tubs. That capacity is a precious thing, if not overworked."[93] For Leopold the creation of "wilderness playgrounds" was an important means for play-acting the early frontiersman's experience of the wilderness. Thus, in advocating the creation of the Gila Wilderness Area, he sought to provide boys with an opportunity for "reenacting American history." As he wistfully constructs the script: "a boy scout has tanned a coonskin cap, and goes Daniel-Booneing in the willow thicket below the tracks. . . . A farmer boy arrives in the school room reeking of muskrat; he has tended his traps before breakfast. He is reenacting the romance of the fur trade."[94] The preoccupation with recreating the frontier experience helps to explain Leopold's acceptance of other uses of wilderness, including grazing in wilderness areas.[95] As he maintains, "Cattle ranches would be an asset from the recreational standpoint because of the interest which attaches to cattle grazing operations under frontier conditions."[96] Historian Paul Sutter observes that "grazing . . . was not a substantial threat to wilderness as [Leopold] then defined it."[97]

To be effective as fantasy, however, game management must be the "art which conceals art." As Leopold explains, "Most of our atavistic instincts, including hunting, find their exercise only through the frank acceptance of illusion."[98] Game management must create the illusion of wilderness without showing the mark of human interference. Leopold believed that the management of nature by humans was a necessity, but if over-managed, wilderness lost its aesthetic and recreational value. "The recreational value of a head of game is inverse to the artificiality of its origin, and hence in a broad way to the intensiveness of the system of game management which produced it. . . . Some but not too much management is good aesthetics."[99] The creation of "wilderness playgrounds" requires the realization that they cannot be artificially constructed. According to Leopold, "To artificially create wilderness areas would overwork the capacity for illusion of even little boys with wash-tubs."[100]

THE HUNTING HERITAGE

In his famous essay "The Land Ethic," Leopold argued for the importance of moving beyond a conception of nature as property. Drawing on Darwinian notions of expanding moral concerns, he tells the mythical story of Odysseus, who, upon his return to Greece, hanged a dozen slave-girls accused of misbehavior in his absence.[101] As Leopold comments, "The girls were property. The disposal of property was then, as now, a matter of expediency, not of right and wrong."[102] He argues, "The first ethics dealt with the relation between individuals. . . . Later accretions dealt with the relation between the individual and society. . . . There is as yet no ethic dealing with man's relation to land and to the animals and plants which grow upon it. Land, like Odysseus' slave-girls, is still property."[103] In this essay, Leopold expresses his hope that over time humans eventually will evolve an ethic that will no longer view land as property.

In the prevailing Lockean concept of property, land had no value until it was mixed with human labor, after which human beings had "ultimate" and "absolute" rights over it, including the right to destroy it if they so desired.[104] Leopold challenged this amoral relation between humans and the land, arguing that the land was a living community that should be safeguarded for the benefit of future generations. In his view, "possession" denoted a living entity to be cherished in a joint custodial stewardship, while "property" was inanimate matter that could be used up and destroyed. Elsewhere, he also developed the idea of the biotic community as a "possession," proposing at one point the title "Great Possessions" for *A Sand County Almanac*.

For Leopold, both sport hunting and the land were clearly possessions to be passed on to future generations. Using the metaphors of economic investment to express this idea, he maintained that wildlife was a public investment

and that to exterminate "interesting species" was a "sin against future generations."[105] As for the primitive aspect of wilderness, he claimed that too many roads in wilderness areas would "amortize the public investment."[106]

Leopold has often been praised for helping to establish a sound scientific basis to environmental ethics. And yet, as mentioned, he also distinguished himself through his emphasis on the ethical significance of aesthetics. Where Roosevelt viewed hunting as an antidote to the over-feminization of young men, Leopold stressed in addition that sport hunting was a vital form of artistic expression. According sport hunting a prominent place in his philosophy, he argued that, in addition to all its other virtues, it had the ability to cultivate a love and respect for the land through its aesthetic appeal to the senses, best stimulated in a wilderness setting.[107] His views on the aesthetic allure of hunting are worth reviewing in greater detail since they underline the ways in which an appeal to aesthetics and sensibility can coexist with violence toward individual beings, as well as the ways it can camouflage violence.

Leopold compared nature's beauty to musical expression, equivalent to "paid entertainment." Describing his visceral response to this beauty, he states that he "tingled at the recollection" of "the sight of the big gander that sailed honking into [his] decoys."[108] As he elaborates, "the duck-hunter in his blind and the operatic singer on the stage, despite the disparity of their accoutrements, are doing the same thing. Each is reviving, in play, a drama formerly inherent in daily life. Both are, in the last analysis, esthetic exercises."[109] The operatic metaphor implies that the hunter is both participant and audience in the artistic expression of nature. Elsewhere, Leopold compares wildlife to theater, arguing that "only those able to see the pageant of evolution can be expected to value its theater, the wilderness, or its outstanding achievement, the grizzly."[110] As a theatrical experience, the evolutionary drama required a proper scenery or backdrop to be fully appreciated. Ideally, the setting would be as far from the trappings of human civilization as possible. Like earlier conservationists, Leopold invoked the primitivist theme of harking back to a primitive frontier wilderness. He saw it as "a continuous stretch of country preserved in its natural state, open to lawful hunting and fishing, big enough to absorb a two weeks' pack-trip, and kept devoid of roads, artificial trails, cottages, or other works of man."[111]

The value of sport hunting was realized, for Leopold, not only by inserting oneself into a Darwinian "drama" of existence, but also by appreciating this "drama" as a form of art. Hunting was a vital stage in a young boy's maturation process. Only in old age is it possible for men to find other substitutes for this activity. As he states,

> Hunting and nature study are merely the beginning and the end of a cycle normal to advancing age in each individual. Just as the evolution of the species is repeated in the pre-natural history of each individual, so the evolution of the nature-lover is being repeated in each boy keen for the hunt. It is conceivable that the hunting stage could be eliminated by educational pressure on the youth, but it seems equally probable that too much pressure of this kind might cut off or subvert the whole process, nature-lover included, and thus sever the last personal tie which binds the city dweller to the land.[112]

Although Leopold hints that as a young boy matures, he might replace his love of hunting with nature study, he never followed this maturational process in his own life. Nor did he ever go so far as to assert that sport hunting *should* be relinquished in one's adult years. His ideas on the relationship between sport hunting and maturity contrast with those of another well-known naturalist, Henry David Thoreau. Thoreau, too, believed that sport hunting was a natural part of a young boy's maturation, but he argued that waning interest in this blood sport was a mark of moral maturity.[113]

CONCLUSION

One cannot dispute that Leopold made a significant contribution to environmental philosophy. He championed the concept of the earth as a community of interdependent beings, the idea of the fragility of the land, the importance of minimizing human interference, and the value of developing affective ties to the land. His writings also display a unique blend of scientific and aesthetic concerns. Despite these positive contributions, however, in this chapter I have challenged the view that Aldo Leopold made a decisive break with earlier views of nature. Although he moved beyond the previous generation's exclusive emphasis on the material benefits of conservation, his focus on the psychological and moral value of sport hunting perpetuates an instrumental view.

Further, Leopold's emphasis on the central importance of sport hunting reflects a masculinist orientation that "sacrifices" individual beings to a larger "objective" perspective, symbolized by the "land." Not only was the "beauty, integrity, and stability" of the land not marred by hunting, it was *enhanced* by it. Leopold's views on sport hunting reduced other-than-human animals to psychological props in a drama that reinforced the manly virtues. In short, he perpetuated a masculinist orientation that subordinates affective ties to individual beings to larger, more enduring constructs.

NOTES

1. J. Baird Callicott, "Animal Liberation and Environmental Ethics: Back Together Again," in *In Defense of the Land Ethic: Essays in Environmental Philosophy*, ed. J. Baird Callicott (Albany: State University of New York Press, 1989), 15.

2. Wallace Stegner, "Living on Our Principal," *Wilderness* 48 (Spring 1985), reprinted in *Marking the Sparrow's Fall: The Making of the American West*, ed. Page Stegner (New York: Henry Holt, 1998), 149.

3. The first edition was published as *A Sand County Almanac and Sketches Here and There*. In 1966 Oxford University Press added eight essays from the Round River collection, and published the repackaged edition under the title *A Sand County Almanac with Essays from Round River*. In 1970 Ballantine republished it under the title *A Sand County Almanac*.

4. The utilitarian model of the Forest Service can be seen in their first manual, which states that the national forests existed "for the purpose of preserving a perpetual supply of timber for home industries, preventing destruction of the forest cover . . . and protecting local industries from unfair competition in the use of forest and range." Gifford Pinchot, *The Use of the National Forest Reserves: Regulation and Instructions*, U.S. Department of Agriculture, Forest Service, 1905, 7.

5. Stegner, "Living on Our Principal," 150.

6. Aldo Leopold, "Varmints," *Pine Cone*, no. 12 (January 1919): 1. A photo of this brief article may be seen in Susan L. Flader, *Thinking like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude toward Deer, Wolves and Forests* (Madison: University of Wisconsin Press, 1974), xxvi.

7. Aldo Leopold, "Wanted—National Forest Game Refuges," *Bulletin of the American Game Protective Association* 9, no. 1 (1920): 9.

8. Flader, *Thinking like a Mountain*, 61.

9. Aldo Leopold, "Review of Young and Goldman, *The Wolves of North America*," in *The River of the Mother of God and Other Essays by Aldo Leopold*, ed. Susan L. Flader and J. Baird Callicott (Madison: University of Wisconsin Press, 1991), 322. Originally published in *Journal of Forestry* 43, no.1 (January 1945): 928–929.

10. Aldo Leopold, "Forestry and Game Conservation," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 59. Originally published in *Journal of Forestry* 16, no. 4 (April 1918): 404–411.

11. Aldo Leopold, "Ten New Developments in Game Management," in *Aldo Leopold's Wilderness* eds. David E. Brown and Neil B. Carmony (Harrisburg, Pa.: Stackpole Books, 1990), 114. Originally published in *American Game* 14, no. 3 (7-8, 20).

12. Flader, *Thinking like a Mountain*, 67.

13. Leopold's scientific formulas for determining the "kill factor" for a given range were based on an analogy with the "steer factor" used in range cattle management. The steer factor, in turn, was derived from the Forest Service notions of sustained yield. Aldo Leopold, "Determining the Kill Factor for Blacktail Deer in the Southwest," in *Aldo Leopold's Wilderness*, eds. David E. Brown and Neil B. Carmony, 87–91. Originally published in *Journal of Forestry* 18, no. 2 (February 1920): 131–134.

14. Aldo Leopold, "Game Management in the National Forests," in *Aldo Leopold's Wilderness*, eds. David E. Brown and Neil B. Carmony, 126–129. Originally published in *American Forests* (July 1930).

15. Aldo Leopold, "Wilderness as a Form of Land Use," in *River of the Mother of God*, eds. Susan L. Flader and J. Bairal Calliout, 140–141. Originally published in *Journal of Land and Public Utility Economics* 1, no. 4 (October 1925): 398–404.

16. Aldo Leopold, "A Plea for Wilderness Hunting Grounds," in *Aldo Leopold's Wilderness*, eds. David E. Brown and Neil B. Carmony, 158–159. Originally published in *Outdoor Life* 56 (November 1925).

17. J. Baird Callicott, "The Wilderness Idea Revisited: The Sustainable Development Alternative," in *The Great New Wilderness Debate: An Expansive Collection of Writings Defining Wilderness from John Muir to Gary Snyder*, ed. J. Baird Callicott and Michael P. Nelson (Athens: University of Georgia Press, 1998), 343.

18. The gun used by Leopold, still bearing the tooth marks left by the wolf, is on display at the University of Wisconsin–Madison's Department of Wildlife Ecology. According to Curt Meine, although never formally recorded, the story of the wolf's final stand is part of department lore. Email to author, February 13, 2007.

19. Aldo Leopold, "Thinking like a Mountain," in *A Sand County Almanac and Sketches Here and There* (New York: Oxford University Press, 1968), 129–130. Leopold's conservation ethic developed in large part out of this belief in the need to control the "trigger itch" that plagues the young or immature hunter. As he stated, "foregoing a sure shot" of a treed partridge was "my first exercise in ethical codes." *A Sand County Almanac and Sketches Here and There* (New York: Oxford University Press, 1968, 121. Roosevelt describes a similar evolution in thinking about the need for control of "buck fever," boasting that "the first two or three bucks I ever saw gave me buck fever badly, but after I had gained experience with ordinary game I never had buck fever at all with dangerous game. In my case the overcoming of buck fever was the result of conscious effort and a deliberate determination to overcome it." *Theodore Roosevelt: An Autobiography* (New York: Macmillan, 1914), 34–35. In a similar vein, a recent article in a popular hunting magazine offers advice on how to cope with the "performance anxiety" that accompanies buck fever. The author advises, "rather than damp down that incredible rush, what you want is to channel it, master it so it doesn't master you." Recommended techniques include breathing and meditation exercises, and repetition of mantras ("don't you dare use that word, because your buddies will ridicule you"). Bill Heavey, "This Is Your Brain on Bucks," *Field and Stream*, November 2006, 90, 105–106. For similar advice on how to transform the "adrenaline [surge]" that accompanies hunting into a "peak experience," see James A. Swan, *In Defense of Hunting* (New York: HarperCollins, 1995), 33–35.

20. Stephan Harding, "What Is Deep Ecology?" *Resurgence* 185 (November–December 1997): 14.

21. Ruth Rosenhek, "Nature as Faith," *Chain Reaction* 94 (July 2005): 21.

22. As Forrest Wood Jr. points out, Leopold wrote "Thinking like a Mountain" in 1944, looking back on "an experience that happened in New Mexico probably during the first year (1909) of his service with the Forest Service." *The Delights and Dilemmas of Hunting: The Hunting Versus Anti-Hunting Debate* (Lanham, Md.: University Press of America, 1997), 137.

23. Leopold, "Thinking like a Mountain," 132.

24. Curt Meine, *Aldo Leopold: His Life and Work* (Madison: University of Wisconsin Press, 1988), 242.

25. Aldo Leopold, *Game Management* (Madison: University of Wisconsin Press, 1986), 3. Originally published by Charles Scribner's Sons, 1933.

26. Aldo Leopold, "An Outline Plan for Game Management in Wisconsin," in *A Study of Wisconsin: Its Resources, Its Physical, Social and Economic Background; First Annual Report* (Madison: Wisconsin Regional Planning Committee, 1934), 250.

27. Charles Bergman, *Orion's Legacy: A Cultural History of Man as Hunter* (New York: Dutton, 1996), 266.

28. On the symbolic role of hunting throughout Western history, with a focus on its connection to masculine identity, see Bergman, *Orion's Legacy*; Andrée Collard with Joyce Contrucci, *Rape of the Wild: Man's Violence Against Animals and the Earth* (Bloomington: Indiana University Press, 1989); Merritt Clifton, "Killing the Female: The Psychology of the Hunt," *Animals' Agenda* 10, no. 7 (September 1990): 26–30, 57; Brian Luke, *Brutal: Manhood and the Exploitation of Animals* (Chicago: University of Illinois Press, 2007).

29. For an in-depth chronicle of Leopold's gradual evolution toward an ecological view of predators, see Flader, *Thinking like a Mountain*.

30. Aldo Leopold, "Wilderness," (transcribed speech) in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 227–228. Originally published in Stencil Circular 210, Extension Service, College of Agriculture, University of Wisconsin, Madison (February 1939).

31. Leopold, "Wilderness" (speech), 226.

32. Flader, *Thinking like a Mountain*, 93–96.

33. Bron Taylor, "Earth First! From Primal Spirituality to Ecological Resistance," in *This Sacred Earth: Religion, Nature, Environment*, ed. Roger S. Gottlieb (New York: Routledge, 1996), 550.

34. Leopold, "Thinking like a Mountain," 129.

35. H. Paul Santmire, "The Metaphors of Ascent and Fecundity," in *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* (Philadelphia: Fortress Press, 1985), 18–21.

36. Lawrence Buell, *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture* (Cambridge, Mass.: Harvard University Press, 1995), 171–172. For an in-depth history of the story behind the publication of *A Sand County Almanac*, see Dennis Ribbens, "The Making of *A Sand County Almanac*," *Wisconsin Academy Review* 28, no. 4 (1982), reprinted in *Companion to "A Sand County Almanac": Interpretive and Critical Essays*, ed. J. Baird Callicott (Madison: University of Wisconsin Press, 1987), 91–109.

37. Aldo Leopold, "Defenders of Wilderness" (essay), in *Sand County Almanac*, 200–201.

38. Leopold, "Defenders of Wilderness" (essay), in *Sand County Almanac*, 200.

39. Aldo Leopold, "Some Fundamentals of Conservation in the Southwest," *Environmental Ethics* 1, no. 2 (Summer 1979). Reprinted in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 86–97. Written in 1923, the article remained unpublished during Leopold's lifetime.

40. Leopold, "Some Fundamentals of Conservation," 95.

41. J. Baird Callicott, "The Conceptual Foundations of the Land Ethic," in *In Defense of the Land Ethic*, 89.

42. Aldo Leopold, "The Land Ethic," (essay) in *Sand County Almanac*, 204.

43. In a similar vein, Roderick Nash observes that "Leopold's concept of reverence-for-life was precisely that—for life in toto, and not so much for the individual players in the process." Nash, "Aldo Leopold's Intellectual Heritage," in Callicott, *Companion to "A Sand County Almanac,"* 82.

44. Aldo Leopold, "To the Forest Officers of the Carson," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 41. Originally published in *Carson Pine Cone* 15 (July 1913).

45. Callicott, "Conceptual Foundations," in *In Defense of the Land Ethic*, 84.

46. Aldo Leopold, "Threatened Species: A Proposal to the Wildlife Conference for an Inventory of the Needs of Near-Extinct Birds and Animals," in *Aldo Leopold's Wilderness*, eds. David E. Brown and Neil B. Carmony, 193–198. Originally published in *American Forests* 42, no. 3 (1936): 116–199.

47. J. Baird Callicott, "The Land Aesthetic," in *Companion to "A Sand County Almanac,"* 167.

48. Callicott, "The Land Aesthetic," 167.

49. Leopold, "Land Ethic," (essay) in *Sand County Almanac*, 224–225.

50. Aldo Leopold, "Conservation Esthetic," (essay) in *Sand County Almanac*, 175.

51. It is worthy of note that the very concept of "species" as a biological entity is based on the capacity of animals to reproduce with beings of their own kind. Hence, the emphasis on regeneration is built into the very word itself.

52. Leopold, "Plea for Wilderness Hunting Grounds," 160.

53. Leopold's repeated use of the purportedly generic "man" makes it difficult at times to assess whether he felt that hunting was instinctive only to men or to all humans. However, his repeated references to what is natural for young boys suggest that he had men and boys in mind.

54. Aldo Leopold, "Goose Music," in *Round River: From the Journals of Aldo Leopold*, ed. Luna B. Leopold (New York: Oxford University Press, 1993), 167.

55. Leopold, *Game Management*, 391.

56. Leopold, *Game Management*, 232.

57. Aldo Leopold, "Game and Wild Life Conservation," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 167. Originally published in *Condor* 34, no. 2 (March–April 1932): 103–106.

58. Leopold, "Goose Music," 173.

59. Chaone Mallory, "Acts of Objectification and the Repudiation of Dominance: Leopold, Ecofeminism, and the Ecological Narrative," *Ethics and the Environment* 6, no. 2 (2001): 73.

60. Leopold, "Plea for Wilderness Hunting Grounds," 156.

61. Leopold, "Goose Music," 167.

62. Leopold, "Land Ethic," 202.

63. Leopold, "Wilderness for Recreation" (essay), in *Sand County Almanac*, 192.

64. Charles Darwin, *The Descent of Man and Selection in Relation to Sex*, reprint edition (New York: Barnes and Noble, 2004), 102.

65. Leopold, "Land Ethic," 203–204.

66. Leopold, "Goose Music," 167.

67. Nash, "Aldo Leopold's Intellectual Heritage," 79.

68. Aldo Leopold, "On Killing the Limit," *Pine Cone* (July 1917): n.p., quoted in *Aldo Leopold: His Life and Work*, Meine, 163.

69. Aldo Leopold, "Wildlife in American Culture" (essay), in *Sand County Almanac*, 178.

70. Leopold, "Wilderness as a Form of Land Use," 137–138.

71. Meine, *His Life and Work*, 18 (as recalled by Leopold's brother, Frederic).

72. Leopold, "Goose Music," 172.

73. Leopold, "Land Ethic," 225.

74. Aldo Leopold, "The Farmer as a Conservationist," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 258.

75. Leopold, "Farmer as a Conservationist," 263.

76. *The American Heritage Dictionary*, 4th ed., s.v. "wilderness."

77. Some writers have argued that Leopold's endorsement of hunting in wilderness areas (later called "primitive areas" by the Forest Service and "wilderness" by the Park Service) was motivated by pragmatic concerns. It is suggested that he recognized that he would garner more support for his cause if he emphasized the utility of wilderness areas for hunting. Leopold was intent on countering the notion that wilderness was an empty vacuum, serving no use. His purpose was to point to the recreational benefits to be found in these seemingly unused areas. See, for example, "Wilderness as a Form of Land Use," 134–142. Some also point to the competition between the Forest Service and the Park Service for public land designation as an additional motive. Since the Park Service prohibited hunting, Forest Service promoters could use hunting as a competitive edge over their Park Service counterparts. They could also argue that their roadless wilderness areas were less expensive to maintain and that they were in a better position than the Park Service, which allowed tourists, to preserve wilderness. Daniel J. Philippon, *Conserving Words: How American Nature Writers Shaped the Environmental Movement* (Athens: University of Georgia Press, 2005), 169.

78. Aldo Leopold, "Conserving the Covered Wagon," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 129. Originally published in *Sunset Magazine* 54, no. 3 (March 1925): 21, 56.

79. Aldo Leopold, "The River of the Mother of God," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 123–124. Originally published in *Sunset Magazine* 54, no. 3 (March 1925): 21, 56.

80. Leopold, "Game and Wild Life Conservation," 165.

81. For information about the suffering that bow-hunting inflicts, see Aaron N. Moen, "Crippling Losses," *Deer and Deer Hunting* 12, no. 6 (1989): 64–70; and Al Hofacker, "On the Trail of Wounded Deer: The Philosophy of Waiting," *Deer and Deer Hunting* 10, no. 2 (1986): 65–85 and 104.

82. Aldo Leopold, "Wilderness as a Land Laboratory," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 288. Originally published in *Living Wilderness* 6 (July 1941): 3.

83. Flader and Callicott, introduction, *River of the Mother of God*, 27.

84. Leopold, "Wilderness" (essay), in *Sand County Almanac*, 188.

85. Leopold, "Conservation Esthetic," 176.

86. Leopold, "Wilderness as a Form of Land Use," 138.

87. Leopold, "Wilderness as a Form of Land Use," 137.

88. Aldo Leopold, "Pioneers and Gullies," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 106.

89. Susan R. Schrepfer, *Nature's Altars: Mountains, Gender, and American Environmentalism* (Lawrence: University Press of Kansas, 2005), 160.

90. In "Wilderness as a Land Laboratory," Leopold further reveals his views on Native Americans while describing the wilderness landscape of the Sierra, commenting that it "retains its full fauna and flora (save only the wild Indian)," 289.

91. On the theme of hunting as a form of ritual sacrifice, see Walter Burkert, *Homo Necans: The Anthropology of Ancient Greek Sacrificial Ritual and Myth*, trans. Peter Bing (Berkeley: University of California Press, 1983), 12–22.

92. Ingeborg Flügel, "Some Psychological Aspects of a Fox-Hunting Rite," *International Journal of Psycho-Analysis* 12 (1931): 487.

93. Leopold, "River of the Mother of God," 125.

94. Leopold, "Wildlife in American Culture," 177–178.

95. Paul S. Sutter, "'A Blank Spot on the Map': Aldo Leopold, Wilderness, and U.S. Forest Service Recreational Policy, 1909–1924," *Western Historical Quarterly* 29, no. 2 (Summer 1998): 208.

96. Aldo Leopold, "The Wilderness and Its Place in Forest Recreational Policy," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 81. Originally published in *Journal of Forestry* 19, no. 7 (November 1921): 718–721.

97. Sutter, "'Blank Spot on the Map,'" 208.

98. Aldo Leopold, "Game Methods: The American Way," in *River of the Mother of God*, eds. Susan L. Flader and J. Baird Callicott, 163.

99. Leopold, "Game Methods," 158, 159.

100. Leopold, "River of the Mother of God," 126.

101. Roderick Nash argues that Leopold at times comes very close to plagiarizing Darwin's ideas of an expanding ethic. Nash, "Aldo Leopold's Intellectual Heritage," 80. Callicott, in turn, points out that Darwin's conception of ethics is indebted to Hume, who argued that ethical behavior depends upon and is motivated by "the moral sentiments." See Callicott, "Hume's *Is/Ought* Dichotomy," in *In Defense of the Land Ethic*, 118.

102. Leopold, "Land Ethic," 201.

103. Leopold, "Land Ethic," 202–203.

104. Eugene C. Hargrove, *Foundations of Environmental Ethics* (Englewood Cliffs, N.J.: Prentice Hall, 1989), 70.

105. Leopold, "Forestry and Game Conservation," 59.

106. Leopold, "Wilderness as a Form of Land Use," 139.

107. Reflecting upon the importance of hunting to Leopold's land ethic, Callicott states, "[Leopold] may even have harbored the belief—however troubling and paradoxical it may seem—that a genuine and deep 'love and respect' for nature is possible only through a specific form of direct physical experience with nature: hunting. Hunting was the portal through which Leopold himself embarked on his romance with nature and it was the kind of experience that led to his mature environmental attitude and values, including his land ethic." In "Turning the Whole Soul: The Educational Dialectic of *A Sand County Almanac*," *Worldviews* 9, no. 3 (2005): 366.

108. Leopold, "Goose Music," 168–169.

109. Leopold, "Conservation Esthetic," (essay) in *Sand County Almanac*, 168.

110. Leopold, "Wilderness" (essay), in *Sand County Almanac*, 199.

111. Leopold, "Wilderness and Its Place in Forest Recreational Policy," 79.

112. Leopold, "Social Consequences of Conservation," undated manuscript, quoted in Meine, *Aldo Leopold: His Life and Work*, 296. Meine states that Leopold was groping to reconcile the "wild-lifers" and the "gunners" in this passage. It is interesting to note that Leopold believed that scientific study of nature might function as a substitute for sport hunting for men in their advanced years, despite his continued pursuit of it.

113. Thomas L. Altherr, "'Chaplain to the Hunters': Henry David Thoreau's Ambivalence Toward Hunting," *American Literature* 56, no. 3 (1984): 345–361.