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Abstract

Callicott's interpretation of Leopold's land ethic has been criticized as ecofascist and misanthropic. In addition, it has been argued that his principle precept upon which his land ethic rests is vague if not incoherent. In light of these challenges, I suggest a better way to arrive at a land ethic, which deals not with obligations or duties to the land as Callicott's does but instead with the application of virtues to nature. In this paper, I provide a brief overview of Callicott's land ethic and then include a few criticisms of the land ethic. Next, I argue for why a focus on the development of personal character using virtues makes a virtue ethic preferable to Callicott's deontological approach in terms of its candidacy for an environmental ethic. Finally, I suggest four virtues—compassion, humility, wonder and prudence—that not only are vital in forming an environmental virtue ethic for the land, they are also able to help solve many problems associated with Callicott's excessively holistic land ethic. For instance, the virtues of compassion and prudence are able to provide a moderately holistic land ethic that appropriately values the dynamic between the individual and the community. In addition, I argue that a land ethic built on virtues can correctly label the value of pain unlike Callicott's version, which is inclined to overlook—and, at times, possibly endorse—pain.

Environmental Virtue, Callicott and the Land Ethic

It is not so difficult to love nonhuman life, if gifted with knowledge about it.[1]
-Edward O. Wilson

For all his successes, Socrates was a self-described poor student when it came to environmental ethics. He tells Phaedrus, "I am devoted to learning; landscapes and trees have nothing to teach me—only the people in the city can do that" (*Phaedrus* 230d). This message, similar to many of his other teachings, stayed with philosophers for more than 2,400 years. Ethics, since the time of Socrates, has been an interpersonal discipline concentrating on good and right action among people. Lately, however, a new breeze is blowing, and it is taking hearts and minds out into nature. This has fostered a new emphasis on the environment and has reconnected us, in certain ways, to the natural world.

In the beginning of the 20th century, scientists such as Frederic L. Clements, Paul Sears, and Eugene P. Odum were voices influential in getting people interested in ecology and conservation. In 1949, an ecologist named Aldo Leopold wrote *A Sand County Almanac*, which featured a revolutionary essay called "The Land Ethic" that sought an all-encompassing respect for the land. In his dedication to environmental issues, Leopold was ahead of many philosophers. It wasn't until three decades later that the philosophical community took notice of Leopold's work when J. Baird Callicott embraced the all-inclusive message of the land ethic and brought it into the environmental ethics community.

[1] Wilson, E.O. (2002). *The Future of Life* (p. 134). New York: Knopf.

The land ethic recognizes three human environments—individuals, society and the land. The first two steps of ethical extension, Leopold claims, have been taken: The Golden Rule, for instance, integrates the individual to society. Land, however, is still merely property, and its relation to individuals, he suggests, is one of economic privilege but not obligation (1949, 203-204). Although there is no ethical system, as yet, that deals with man's relationship to the land, Leopold insists that the "third step in a sequence"—the land ethic—is an ecological necessity.

Following the vision of Leopold, Callicott's interpretation of a far-reaching land ethic invigorated the debate among environmental philosophers about the role of humanity in nature. Ultimately, it sought to enlarge the boundaries of the ethical community "to include soils, waters, plants and animals, or collectively: the land" (Callicott, 1999, 230). In turn, the land ethic could restore focus to the overall biotic community. A land ethic changes the role of *Homo sapiens* from conqueror of the land-community, Leopold says, to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such (204).

Callicott's land ethic, however, has been criticized as excessively holistic, ecofascist and even misanthropic. In addition, it has been argued that his principle precept upon which his land ethic rests is vague if not incoherent. In light of these challenges, I suggest a better way to arrive at a land ethic, which deals not with obligations or duties to the land as Callicott's does but instead with the application of virtues to nature. In this paper, I provide a brief overview of Callicott's land ethic and then include a few criticisms of the land ethic. Next, I argue for why a focus on the development of personal character using virtues makes a virtue ethic preferable to

Callicott's deontological approach in terms of its candidacy for an environmental ethic. Finally, I suggest four virtues—compassion, humility, wonder and prudence—that not only are vital in forming an environmental virtue ethic for the land, they are also able to help solve many problems associated with Callicott's excessively holistic land ethic. For instance, the virtues of compassion and prudence are able to provide a moderately holistic land ethic that appropriately values the dynamic between the individual and the community. In addition, I argue that a land ethic built on virtues can correctly label the value of pain unlike Callicott's version, which is inclined to overlook—and, at times, possibly endorse—pain.

I.

The extension of ethics to the land, Leopold and Callicott claim, is a process of ecological evolution. They allude to Darwin's account of evolution, which argues that even ethics can be understood as having evolved by natural selection from traits of closely related species. But ethics seems problematic from an evolutionary perspective (Callicott, 1999, 117). Ethics demands that moral agents selflessly consider other interests apart from their own, but evolution would seem to predict that the *selfish* would outcompete the selfless. Therefore, in the struggle for existence, selfish acts and an emphasis on selfishness would be selected for in a population. History, however, at least as it relates to remote human ancestors, suggests the opposite—that they were more callous and ruthless than we are. So how is it that altruism, which actually reduces personal fitness of individual organisms, possibly evolves from natural selection?

Darwin suggests that life's struggle for humans is more efficiently prosecuted collectively and cooperatively rather than singly and competitively (118). While solitary ancestors were easy prey to their enemies, together they stood a fighting chance of defending themselves and attacking animals larger than themselves. Given that they recognized strength in numbers, humans began to form primitive societies for protection. With these small groups came rudimentary ethics to enhance cohesion and integration. As Darwin says, "No tribe could hold together if murder, robbery and treachery were common; consequently such crimes within the limits of the same tribe 'are branded with everlasting infamy' but excite no such sentiment beyond these limits" (1871, 93).

With self-sacrifice first grounded in small groups, an evolutionary pathway to ethics begins, and these altruistic parental sentiments began to spill over to siblings and close kin. This allowed for larger groups to bond together, which enabled them to defend themselves and reproduce more efficiently. While the group dynamic was stronger, Callicott states, the social impulses and sentiments, by themselves, fell short of an ethic. They did serve as foundations of ethics, however, and moral rules took shape over time in virtue of *Homo sapiens*' unique ability to use their intelligence and imagination to develop a rich language that could articulate commandments to prohibit destructive behavior.

The logic of the land ethic, Callicott notes, is that natural selection has given humans the ability to have moral responses to bonds of kinship and community identity. And, he suggests, because ethics has its origin in modes of cooperation by interdependent individuals, then all ethics rests upon the idea that the individual takes membership in a

community of interdependent parts. Moreover, if the land today is represented as a biotic community, an environmental ethic is both possible and necessary (1999, 229-231).

Ethics further developed as larger human social groups began to dominate smaller ones. This competition gave rise to different levels of organizations. Clans merged into tribes; tribes, then, into nations, and finally, nations into republics. Each changing level of society, Darwin suggests, saw an extension of systems of ethics. He explains:

> As man advances in civilization, and small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being once reached there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races (1871, 100-101).

Leopold, of course, sought to extend "social instincts and sympathies" even farther than Darwin's universal human rights ethic. In addition to evolutionary theory, Leopold rests his land ethic on two other scientific principles. Taken together, the three foundations help connect the idea that the land must be viewed as a collective community of soils, waters, and natural flora and fauna. Once land is perceived in this manner—as a biotic community—Leopold suggests the land ethic will expectedly emerge.

The first scientific principle on which the land ethic rests is evolutionary biology, and it establishes a diachronic link between ethics and social development. The second scientific principle is ecological, which provides a community concept that can be seen as uniting human and nonhuman nature. Last, the perspective of Copernican astronomy describes the Earth as a small planet in an immense and hostile universe, which contributes to a sense of kinship and community by demonstrating the importance of a shared setting in the universe.

The community focus of the land ethic, Callicott says, shifts the moral concern gradually away from individual members of nature to the biota collectively, and right and wrong, as a result, is governed by measuring the effects on community rather than on the individual. Thus, the land ethic, according to Callicott, is "holistic with a vengeance," and he states it is this intensely holistic outlook that distinguishes it from any other ethic in modern moral philosophy (1999, 231). One other distinction is that, unlike the standard modern model of ethical theory that has traditionally been psychocentric and therefore radically individualistic, the land ethic provides for the moral consideration of wholes, such as endangered species, ecosystems or the totality of the biosphere. This emphasis on collectives, Callicott suggests, is seen clearly in Darwinian evolution, and Darwin himself sometimes wrote as if morality had no other object than the welfare of the community (232). Darwin writes:

> We have now seen that actions are regarded by savages, and were probably so regarded by primeval man, as good or bad, solely as they obviously affect the welfare of the tribe—not that of species nor that of individual member of the tribe. This conclusion agrees well with the belief that the so-called moral sense is aboriginally derived from social instincts, for both relate at first exclusively to the community (1904, 120).

For the land ethic, therefore, the biotic community should be awarded intrinsic value because, Callicott suggests, it is a newly discovered object of a specially evolved "public affection" that humans have inherited through evolution from their ancestral social primates. But the overriding holism of the land ethic, he states, is not found primarily through the evolutionary principle but instead through ecological thought. As the study of the relationships of organisms to one another and to the elemental environment, ecology binds the individuals into a seamless fabric. Ecological relationships determine the nature of organisms rather than the other way around. A

species is what it is, Callicott suggests, because of its adaptations to the ecosystem; the whole, quite literally, shapes its component parts (1999, 232).

The reliance of all organisms on a land pyramid, Callicott notes, solidifies the ecological relation between the ecosystem and its species. Energy from the sun enters the biotic community through the leaves of plants and then finds its temporary home in herbivores, then on to omnivores and carnivores. In addition, solar energy is recycled back into the soil after it is broken down by worms, bacteria and other decomposers. The species that make up each layer are not necessarily alike other than what they eat, and each layer in the pyramid furnishes food to those above. Moreover, as one moves upward through the organizational structure, the number of species are drastically diminished so that for every apex carnivore, there exist hundreds of its prey, millions of insects, and countless more species of plantlife. Land, as Callicott explains, is more than soil. Rather, it acts a fountain of energy flowing through a circuit of soils, plants and animals. Food chains are living channels conducting energy upward, and death and decay return energy to the soil (233).

As the land is conceived as a fountain of energy, Callicott argues, the holistic foundations of the land ethic are clear. Viewed from this model, process precedes substance, and energy is prior to matter. Individual plants and animals, therefore, do not stand on their own and are more like "ephemeral structures in a patterned flux of energy." The land's function as a type of energy unit, he asserts, emerges as the ultimate good of the land ethic (234).

From this good, the land ethic establishes several practical principles. Among its top priorities is the preservation of species, especially those at the top of the pyramid.

Many human activities, such as deforestation, result in massive species extinctions and are devolutionary as they diminish the biotic pyramid. While evolutionary changes are normally gradual, humanity's development of technology has enabled for rapid and unprecedented changes, both Leopold and Callicott assert, within the biotic community. While we have inherited more diversity than had ever existed before on Earth, Callicott says, the rate at which human-caused species extinction is occurring is unacceptable, according to the land ethic, as it results in biological impoverishment instead of enrichment (234).

Callicott lays the philosophical foundations for the land ethic in "Animal Liberation: A Triangular Affair," in which he draws a distinction between environmental ethics and the animal liberation movement. Although both provide, he says, for a historical progression of moral rights from fewer to greater entities, environmental ethics (i.e., the land ethic) is a more sweeping, more inclusive extension than the one animal liberationists envision (1992, 38). To advocates of Callicott's and Leopold's land ethic, the beech and chestnut have as much a right to life as the wolf and the deer, and mountains and streams are genuine ethical concerns as serious as the concerns of animals. In short, Callicott asserts that the land ethic and the ethic of the animal liberation movement are different ethical systems as they rest upon dissimilar theoretical foundations.

The emergence of the land ethic, Callicott suggests, adds another element to a controversy assumed to be only between so-called ethical humanists and humane moralists. Whereas ethical humanists hold that only humans can be granted moral considerability on the grounds that they are rational, or are capable of having interests or

possess self-awareness, humane moralists expand the requirement to the capability of feeling pleasure and pain, or sentience, to enjoy full moral standing. Animals that suffer, even though they are deprived of reason and speech, should be as much a matter of ethical concern as humans, say sentientists. Why, they argue, should moral considerability be provided only to those who use reason or speech? After all, what does the ability to reason have to do with moral standing? Such a criterion, sentientists argue, seems unrelated to bestowing this type of value. The capacity to suffer, on the other hand, seems to be a more relevant criterion. To suffer pain is evil while its opposite, pleasure, is good. The hedonic utilitarianism of the humane moralists, therefore, insists that we maximize pleasure and minimize pain.

Like the humane moralists, ethical humanists draw a well-defined and sharp cutoff point that splits those who are granted moral standing from those who are not. While the dividing line for the latter is drawn between those who are rational and those who are not, the former affords moral status only to beings capable of feeling pain. The land ethic, Callicott says, suggests that the community is the ultimate measure of moral value. Callicott gets his principle precept of the land ethic from a statement made years earlier by Leopold: 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" (1949, 224-225).

The conceptual foundation of the land ethic, Callicott argues, differs significantly from that of the humane moralists. Whereas humane moralists measure the overall good within hedonistic utilitarianism on an individual basis—as a collection of separate entities—the context of the land ethic is ecological and, therefore, relational (1992, 45). As ecology focuses on relationships between nature and its organisms, it portrays a

holistic and connected environment rather than one made of distinct individuals independently pursuing its own interests. The land, viewed from an ecological perspective, can be seen as a unified system of integrally related parts.

A humane moralist admits that pain must be minimized but that this evil is to be valued equally and independently of its victim. In other words, pain is pain no matter which sentient being—human or nonhuman animal—it inflicts; one agent should not consider her pleasure or pain to be of greater consequence in deciding on courses of action than any other. But the holistic land ethic assigns a relative moral worth, Callicott states, to all members of the biotic community in accordance with how they relate to the land (51). The community as a whole, in other words, serves as a standard for assessing value of its parts.

From the standpoint of ecological biology, Callicott adds, pain and pleasure are unrelated to good and evil (55). Pain is simply an instrument relaying information to an organism's central nervous system of stress or irritation. Viewed this way, pain is not evil at all; in fact, Callicott says it actually can be desirable. For instance, the severity of pain from an injury informs someone the amount of further stress the body can endure while attempting to find safety, and this experience is highly valuable, Callicott suggests (55). Pleasure, on the other hand, is viewed as a reward accompanying actions that contribute to maintenance, such as eating or drinking, or the continuation of the species, such as sexual activity and serving a role as parents. Callicott suggests that freedom from pain as the ultimate good is biologically preposterous:

> To live *is* to be anxious about life, to feel pain and pleasure in a fitting mixture, and sooner or later to die. That is the way the system works. If nature as a whole is good, then pain and death are also good… The hidden agenda of the humane ethic is the imposition of the anti-natural prophylactic ethos of comfort and soft

> pleasure on an even wider scale. The land ethic, on the other hand, requires a shrinkage, if at all possible, of the domestic sphere; it rejoices in a recrudescence of wilderness and a renaissance of tribal cultural experience (55-57).

II.

The land ethic's bold pronouncements of its extreme holistic doctrine and the goodness of pain were not without its challengers. First, it was noted that the principle precept—a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community—conspicuously fails to mention individuals. Callicott's way of valuing individuals within natural communities differs greatly from what many other ethicists advocate, especially those in the animal welfare and animal rights movements. If, as Leopold and Callicott both say, individual humans are truly plain members of the biotic community and our large population threatens this community, many ethicists have asked if this means that we should act to dramatically reduce our own population. If we should, can't we immediately take such measures the same way we might take care of members of plant or animal populations? According to the logic of the land ethic, opponents say, we can engineer human populations until we find an optimized community.

This requirement that individual organisms of any kind—especially human organisms—be sacrificed for the good of the whole makes the land ethic, according to Tom Regan, a type of environmental fascism (1983, 262). From this point of view, it would be our duty to cause massive human fatalities to correct for the strain we have unyieldingly placed on nature. Indeed, it would be morally good to exterminate large portions of the population, and to refrain from this would be wrong, cry opponents of the

land ethic. What's more, human society itself would fracture under the land ethic while leading to classical fascism, submergence of certain individuals and the resulting elevation of races and nations.

Aside from the problem of Callicott's extreme holism and its possible offshoots, such as ecofascism, a growing movement in ecology was beginning to question the validity of the foundational principle on which the land ethic stood. As early as the 1930s, years before "The Land Ethic" was published, scientists began to urge citizens to take ecology seriously. Botanist Paul Sears recommended that the government hire ecologists at the county level to attempt to educate the public with the goal of ending environmental deterioration. In Sears' day, ecology was hailed as a guide to the future and was believed to offer a path to a kind of moral enlightenment, Donald Worster suggests, motivated by and ethic of conservation (1999, 248). In addition to Sears, ecologist Frederic L. Clements helped portray that ecology was a study of equilibrium, harmony and order. Nature, asserted Clements, is not characterized by an aimless wandering but a steady flow toward stability that can be directly measured by science. His characterization of the landscape was that it must reach a final stage, sometimes referred to as climax theory, called a "superorganism" that implied a group of plants had in essence become one—the integration of parts of a single animal rather than a mere collection of individuals. Later, in the 1950s and 1960s, scientists, such as Eugene P. Odum, began to speak of nature in different terms, using terms like "ecosystems" and energy flows." All of Earth, Odum suggests, is laid out in interlocking sets of ecosystems of various sizes, and all of them have their own game plans that provide nature a direction. Every ecosystem, Odum argues in agreement with Clements, is moving toward

a goal assuming it hasn't already reached it. For both Odum and Clements, nature's end state is a blissful state of order.

The idea of the ordered ecosystem was a key component of environmentalists and ecologists even until the 1970s, Worster points out that a drastic change soon swept over ecology and shifted the science away from notions of harmony and toward what he describes as an ecology of chaos. Talk of predictable ecosystems on the road to equilibrium drastically switched to disturbance, disharmony and chaos. This meant that ecological succession, contrary to the teachings of Clements and Odum, actually does not lead anywhere. In other words, change in ecosystems has no direction nor do they ever reach any stability. Moreover, no progressive development is to be found in nature, which instead is characterized by growth of many individual species but with no trace of any emergent collectivity among them, including no movement toward a greater cohesiveness among natural flora and fauna. In short, very little if any of what Clements and Odum had suggested seemed to hold true for the study of ecosystems.

If the new ecological movement was to be believed, then stability and integrity of communities, such as ecosystems, are vague and fuzzy notions. This idea casts doubt on the entire working principle of the land ethic—if integrity and stability do not clearly refer to anything, then how can the land ethic prescribe right and wrong. If it can't guide action, then it is difficult to see how it can be any type of responsible ethic.

To some philosophers, however, it is not of primary importance that Callicott's land ethic is intensely holistic, nor do they criticize that it lacks clear principles. They reject the land ethic for another reason: it isn't extremely holistic, they say; in fact, to them the land ethic isn't holistic at all. Cahen, for example, suggests ecosystems, i.e.,

holistic entities, do not have interests of their own and, therefore, should not be granted moral considerability. While plants have interests, Cahen argues, because they are goal-directed as they strive to heal themselves, an ecosystem has no well-being and is incapable of being harmed or benefited (1988, 196). In addition, what might appear to be a goal of an ecosystem, such as stability, is actually a behavioral byproduct of merely individual activities aimed at individualistic goals. The tendency of an ecosystem to bounce back after a disturbance, for example, is based on responses by individual organisms rather than by the entire ecosystem itself. So, stability is not a goal of the system, Cahen suggests, but is rather a goal of the individual. A system is goal-directed, he suggests, only if it behaves as it does because such behavior will bring about a particular goal.

In the remainder of this section, I would like to take a closer look at what I believe to be the three main problems associated with Callicott's land ethic—namely, first, that it improperly values pain by discounting harmful experiences in organisms ; second, that the land ethic is overly and radically holistic and thus undervalues the individual; and third, that its principle precept incorrectly attributes teleological elements to the biotic community, such as stability and beauty, and these erroneous descriptions to communities complicate—if not completely upend—the ability of his land ethic to serve as any type of ethic at all.

To distance the land ethic from the humane moralist movement, Callicott describes how pain is viewed from each perspective. The differences are great, he says, in that sentientists see pain as evil and the capacity to suffer as the relevant criterion for moral standing. On the other hand, from the standpoint of the land ethic, pain is not evil

and sometimes might even be desirable. Callicott, for example, sees nothing wrong with pain as he says it is a "marvelous method" of conveying certain messages to organisms (1992, 68, footnote). Pain, on account of the land ethic, is identified as a sort of information that is particularly valuable. In situations where it occurs, Callicott asserts, it is far better for pain to be felt by an agent instead of being anesthetized (55). The implication is that any scenario in which pain is fully removed would also terminate any sort of beneficial information that pain relays to an individual.

Although Callicott might be correct in describing pain as a great method of conveying information to individuals, must pain necessarily convey a message that is useful to the organism? It appears that Callicott believes it must, and this unvarying link, he argues, between pain and its transmission of worthwhile information can be considered a good for organisms. But I think Callicott overlooks that, although pain is necessarily experienced by all, this does not mean that the transfer of information is always useful. Pain, in other words, could be delivered to an agent without any sort of beneficial or useful message, and it is difficult to see how this type of pain would be considered anything other than negative. For instance, an acute pain overwhelming an individual—such as chronic, intractable pain or the pain associated with terminal cancer—is a grave feeling to which she cannot respond. Helplessness in the face of this pain transforms it into an evil—it is a troubling experience that, with no beneficial message, can do nothing but cause lasting suffering. There are pains that we have no cure for; consequently, we have no way to adapt to them, and they exist, for this reason, as evils.

Pain itself, however, admits of neither good nor evil. A response to pain can be highly valuable in that it helps individuals or species to adapt, evolve and survive. Either they learn and adapt to such experiences, or they fail to adapt, in which case they always are open to danger or the agony of sorrow. What organisms learn from dangerous situations, i.e., the tendency for pain to be viewed as a benefit or a harm, depends on the ability to adapt to the situation. Callicott's land ethic inappropriately evaluates pain by viewing it as always permissible. On this account, pain always leads to an adaptation. This incorrectly assumes, I argue, that we always learn from painful experiences. Unfortunately, this is far from the case. Many illness and diseases create suffering that leaves us helpless. The evil of these pains are overlooked by Callicott's land ethic. That Callicott's land ethic misses the mark on the true nature of pain has dire consequences. Indeed, any ethical system that misdiagnoses the value of pain—in this case, supporting an exceedingly optimistic view of suffering—is one that is unable to consistently offer reliable action guidance.

Callicott suggests that to feel pain and pleasure in a fitting mixture and eventually to die is the law of the land in nature. Moreover, he adds that if nature as a whole is good, then pain and death are also good (56). It is unclear what he means by the term "good"—for instance, it is not clear if he is attributing moral goodness to nature. If so, then it seems he might be guilty of a fallacious appeal to nature: That something is natural does not necessarily make it good. On the other hand, if he is simply describing nature as beautiful, soothing or some other non-moral desirable property, talk of pain as "good" can be challenged, as it was above.

Describing pain as good and coupling this belief with extreme holism that stems from elevating the good of the community over that of the individual has led some to suggest the land ethic could overlook violence not just to organisms, in general, but specifically to human organisms. Callicott's extreme holism, they say, comes directly from the land ethic's principle precept—a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community and wrong when it tends otherwise. As humans significantly damage the biotic community by way of creating climate change or introducing air and water pollution, the harm we cause can only be rectified by drastically reducing our own population. While a call of decreasing population might appeal to many types of ethicists, one problem with the land ethic is that it does not address the manner in which this population should be reduced. In addition, by elevating the community above the individual, the land ethic deprives all individuals of value while suggesting that their value is calculated only insofar as they take care of the biotic community. In the next section, I suggest an alternate way of valuing individuals and the biotic community, which is able to properly locate the individual person within his community.

One final significant problem with Callicott's interpretation of the land ethic, I believe, is that its strength is harshly undercut because the principle precept is altogether unclear. For instance, two of its key terms that are responsible for guiding actions—stability and beauty—admit of ambiguity and uncertainty. What, for example, is beauty in a biotic community? A forest, for instance, might be a beautiful landscape; a field of flowers swaying in the breeze also might be a vision of beauty. But the notion of beauty, I argue, is too subjective to be included as an action-guiding term in a supposedly

objective environmental ethic. Where one person might find beauty, for example, another might find repulsiveness. Callicott appears to take too simplistic a view of what beauty is; he assumes it to come only in one flavor, but beauty, e.g., something that leads to a state of happiness, comes in many kinds and is appreciated differently by different people. Because beauty is interpersonally a subjective term that is often disagreed upon, any land ethic basing action on beauty is doomed to provide subjectivity in how it directs action.

As beauty is ambiguous in the land ethic, so too is stability. Callicott, however, assumes that there exists only one type of stability. In this way, following Clements and Odum, the principle precept suggests that nature is relatively constant in the face of change and is always able to repair itself to the previous balanced state. It appears, however, that the notion of stability within ecosystems is not straightforward and actually varies with time. O'Neill explains that the concept of stability depends directly of the scale of observation. Frequent small-scale disturbances occurring in an ecosystem, for instance, can be overcome, and as a result this sort of ecosystem would be stable to these disturbances. Ultimately, though, ecosystems are unstable, O'Neill states: It is only a matter of time until a large enough disturbance overwhelms the ecosystem's ability to respond (2001, 3278). O'Neill's suggestion that an ecosystem's lack of natural stability implies that it would not be wise to seek action-guidance from Callicott's land ethic, which states without warrant that communities are stable.

Several problems have been identified in Callicott's land ethic, many of which can be avoided if we steer away from his monistic deontological theory. I argue in the upcoming section against a land ethic based on deontology and suggest that a virtue-based ethic is a natural approach that we can use to turn our focus toward the land.

III.

For Callicott, the land ethic expresses a duty to the biotic community, but I suggest the land ethic can be better established using virtue. First, an environmental virtue approach should avoid problems of excessive holism (a symptom of which might be ecofascism), considering that virtues of compassion, respect and cooperation should be able to appropriately recognize and cherish both the individual and the community in which it operates. Second, unlike Callicott's deontological land ethic, a virtue land ethic—with its dependence on many virtues—contains flexibility to account for how we value the land in various ways. But the jump from a duty-based ethic to one involving virtues might seem like somewhat of a random leap. Why attempt it? In other words, what is it about virtue ethics that might set it apart from deontology when it comes to representing the environment?

First, what are some of the key differences between virtue ethics compared to deontology? For starters, virtue ethics emphasizes the agent more than the action. It answers the question "What should I do?" and also "What sort of person should I be?" As such, it focuses on character more than rules (as in deontology) or the consequences of actions (as in consequentialist theories, such as utilitarianism). Just as the virtue of a knife is to be sharp, a virtuous person, according to Aristotle, has character traits that become customary through practice over time. More specifically, he defines virtue to be a state of character that not only is concerned with choice but also lies in a mean relative to us that is between a deficiency or excess of a particular trait (*Nicomachean Ethics* II.6.1106b35-

1107a2). Others have suggested that a virtue is a characteristic trait a human needs to flourish (Hursthouse 1999).

Celia Deane-Drummond, a theologian who has developed a Christian virtue ethics approach to ecology, suggests that unlike other approaches, virtue ethics asks us to consider not just the action but the agent himself. Rather than focusing on which types of action we should perform, it emphasizes what sort of person we are. She continues:

> Actions, where they are considered, are in the light of who we are as persons, rather than detached from human character. The basic premise of virtue ethics is that goodness is a fundamental consideration, rather than rights, duties or obligations. Furthermore, virtue ethicists also reject the idea that ethical conduct can be codified in particular rules (2004, 6).

Virtue's insistence on flourishing implies that it stresses actions not from a temporary perspective but more from a long-term viewpoint. In other words, the virtuous person builds character not to meet the chaotic demands of any given day, rather he does so in order to live a balanced, well-rounded life and to achieve a state of happiness.

Knowledge of how the world works is essential for virtue, and it is also essential for making good decisions about the environment. Simply knowing about a virtue, Aristotle says, does not make an agent virtuous. In addition, he or she must know how to apply the virtues appropriately, including doing so at the right time, in the right way, to the right person and for the right reason (*Nicomachean Ethics* II.6.1106b21-1106b23).

Unlike duty in Callicott's land ethic, which is disconnected from the agent, a virtue is within that agent and composes his character. Adopting virtues, including truthfulness, tolerance, righteousness, patience and loyalty, informs action and enriches character. Virtue, as Hursthouse says, is much more than a tendency to go in for certain sorts of actions (say, honest ones). Those who are honest perform the honest actions for

certain reasons, not, for example, merely because they follow a rule suggesting honesty is the best policy (2007, 160). Virtues, unlike a set of rules, are not given to us. Nor are they quick and easy to acquire, as Aristotle suggests in *Nicomachean Ethics*:

> A sign of what has been said about the unclarity of what intelligence requires is the fact that whereas young people become accomplished in geometry and mathematics and wise within these limits, intelligent young people do not seem to be found. The reason is that intelligence is concerned with particulars as well as universals, and particulars become known from experience, but a young person lacks experience, since some length of time is needed to produce it (1142a12-16).

What is suggested by Aristotle, I believe, is that virtue is (with perhaps the exception of a few other advanced animals) distinctly human. I argue that it, more fully and completely than deontology and consequentialism, is able to incorporate and reflect the delicate and complex processes unique to humanity: deliberation, critical thinking and character development. If we value what it means to be human, if we value the possibility of advancement and intellectual progress, then we should take seriously an ethic based on acquisition and development of virtue.

Virtue ethics differs from deontology in that it relies on more than a basic set of rules or principles to guide action. Many opponents of virtue ethics suggest, however that because it employs a long list of traits that aim to build character, it is unable to provide action-guidance. They claim that virtue does not allow, for instance, for the structure found in deontology and is therefore a weak moral theory because it fails to offer clear guidance. With virtues, there are no principles for guidance, the objection goes, and therefore there is no assistance with how we are supposed to act.

One response to this criticism from advocates of virtue ethics is to stress the role of the virtuous agent as an exemplar. For example, I follow the lead of a virtuous person I admire and use his or her actions as a blueprint for my own behavior. If I find myself in

times of confusion, I seek advice from those I admire. Such advice is not only helpful to me in a given situation, it is helpful for my long-term moral development and my ongoing education on the road to moral maturity. Perhaps a more instructive model to guide virtuous action, however, is through the application of virtue rules. In contrast to deontological rules, the so-called v-rules are oriented around the virtues: Be just; be fair; be considerate, etc. These are not duties, per se; rather they are instructions to do as the virtuous agent would do. Athanassoulis explains in more detail about action-guidance as they relate to virtue:

> Knowing what to do is not a matter of internalizing a principle, but a life-long process of moral learning that will only provide clear answers when one reaches moral maturity. [Virtue ethics] can be action-guiding if we understand the role of the virtuous agent and the importance of moral education and development. If virtue consists of the right reason and the right desire, virtue ethics will be action-guiding when we can perceive the right reason and have successfully habituated our desires to affirm its commands (Athanassoulis 2004).

Some have suggested that virtue ethics and its dedication to personal character is precisely what the environment needs in order to improve. In what follows, I discuss how virtue can help develop a land ethic, and I point out four virtues that I believe are vital in establishing a respectful attitude toward the land. In addition, I suggest how these virtues are able to avoid the aforementioned problems of Callicott's interpretation of the land ethic, including its discounting of pain to individuals and the problem of ecofascism.

Developing virtue in ourselves, Damien Keown argues, is a starting point for resolving environmental issues (2007, 18). A focus on our own human nature, on establishing order first in our own house, is likely needed before we can have success in fixing the rest of the planet:

> Since humans are allegedly the culprits of many ecological problems such as climate change, water pollution, deforestation, desertification, and the general

> mismanagement of resources, the solution would appear to lie in a reform of human attitudes rather than in what are often romanticized philosophies of nature which have little proven value in delivering practical results… Virtue ethics places human beings at the center of the ecological drama, but it does not follow from this that it maintains that only the interests of human beings need to be considered. Virtue ethics is certainly capable of affirming the value of nature while recognizing that it is other than human (18-19).

Keown suggests that our environmental problems could stem from unhealthy attitudinal states, such as anger and indifference. To fix these glitches, Keown suggests we need to alter the way we think *and* the way we feel about our world. Such problems, he suggests, are caused by a dysfunctional state of mind, and he believes that virtues are ideal for constructing an environmental ethic because they are geared specifically to ease these troubling mental states (9). But virtue ethics places a fundamental emphasis on the power of emotion, and it is this complex but delicate collaboration between emotions on one side and reason on the other that allows for virtue ethics to address the challenges of understanding how to value the environment. The emotions, Corcoran suggests, have generally been understood in moral discourse as a 'problem' rather than an enabling feature of a good life (2004, 2). But many virtues are emotions, including benevolence, courage and ambition, and some, as I will argue below, are practically essential for developing a land ethic that pays the appropriate respect to nature.

First, *compassion* is an integral part of experiencing a good life. This involves an aspect of awareness that can sympathize with the plight of others. Callicott, it would appear, omits compassion from his land ethic, which could lead to the charge of ecofascism and the corresponding suppression of the individual. A compassionate individual displays concern and sympathy for others. Callicott's ethic, on the other hand, falls short of sympathy as it suggests that we turn our backs on wounded individuals and

that we ignore those in need of help. This lack of compassion for other follows directly from how he improperly values pain. But these actions of indifference suggested by Callicott are not what a land ethic should advise. To respect the land means that we must be compassionate with and attempt to relieve the land and its constituents of suffering.

If we truly seek a land ethic built on virtues, we cannot get even to a life-centered ethic if we cannot be compassionate with other animals in the environment. A land ethic based in compassion involves broadening horizons past the sphere of interpersonal affairs. Among the first western philosophers to take a big step of compassion toward animals was Singer, who as a sentientist, extended moral considerability to animals capable of feeling pain. This was, of course, a noble step in the right direction toward caring for animals, but as Goodpaster notes, Singer's efforts did not go far enough in terms of valuing individual organisms:

> Singer seems to think that beyond sentience 'there is nothing to take into account.' … Yet it is so clear that there is something to take into account, something that is not merely "potential sentience" and which surely does qualify beings as beneficiaries and capable of harm—namely, life (Goodpaster, 1978, 316).

Goodpaster suggests that capability of suffering is nothing more than an evolutionary adaptation that allows for living organisms to protect themselves from harm, and so sentience, he argues, is irrelevant to the argument regarding moral considerability. Nor does suffering, as Goodpaster suggests, simply involve physical measures of pleasure and pain. A tree feels no pain, but there are nonetheless ways that actions can harm it if by no other way than by thwarting its interests to survive (319). Rolston suggests although nothing matters to a tree, much is vital to it, and we should find the compassion necessary to respect it as such. Furthermore, he says, all organisms have ends

as they are "spontaneous, self-maintaining systems, sustaining and reproducing themselves and executing their programs" (1988, 109).

Finally, consider the case of the Sumatran rhino. The smallest of all the living rhinoceroses, the Sumatran rhino lives on the island of Sumatra in western Indonesia. Poaching, primarily to obtain pieces of their horns, has slashed their population by more than 70 percent in the past 20 years. The horn is valued in parts of the world not only as an ornamental dagger handle but it is also frequently used in medicine in China, Taiwan, Hong Kong and Singapore. Made of keratin—the same type of protein that makes up hair and fingernails--one kilogram of this rhinoceros horn sells for $25,000. Not only are they killed for keratin, deforestation is taking a significant toll on the rhino's habitat. It has been estimated as much land as five football fields each minute is disappearing due to development in Indonesia. As a result, due to extreme human interference, only about 200 Sumatran rhinos exist now. While the principle precept of Callicott's land ethic states that we should ignore the individual members of Sumatran rhino species, Callicott himself has said that "among our cardinal duties is the duty to preserve what species we can" (1999, 234), suggesting that Callicott is at odds with his own environmental ethic. It seems difficult to protect a species composed of individuals if we choose to emphasize only the whole while ignoring its parts. We must instead value individual members plus the species to which they belong—Callicott's land ethic overlooks the individual while clearly favoring the community, but a sensible ethic values both community and its members.

With so few Sumatran rhinos clinging to existence now, any disturbance to their environment is a grave danger not just to individual members of the species but to the

species itself. If we are compassionate to all animals, it naturally extends that we should be compassionate to the places in which they dwell. Spiders need their webs just like birds need the forest. The Sumatran rhino is losing precious ground to habitat destruction, and many species are being driven to extinction because of mining, logging or general urbanization. Compassion alone cannot save the animals and their habitat, but it can create an awareness many animals are indeed worth saving. It might be true that we cannot directly impact the situation in which the Sumatran rhino finds herself, but there are opportunities we can take closer to home to ensure that we minimize suffering of life.

The virtue of *humility*, I believe, if acquired makes the acquisition of some other important virtues more easily attainable. Humility, put simply, is an attitude of modesty. The humble person does not see himself as superior to or worse than anyone or anything else. He is free from self-centeredness, and so is better situated to understand the distress of others. As with compassion, it, too, can be applied not only to humanity but also to the environment. Humility is a state of mind that allows no room for pride. A quick story might reveal how and why I believe this virtue to be so important in developing an environmentally friendly disposition. Not long ago, I visited a friend one night unannounced and was surprised to find him eating a very simple meal. I did not expect this, however, as I thought him to be a gourmand. I asked him why he chose to eat a modest meal at home rather than a fancy meal at an upscale restaurant. He agreed that he *could* eat at such places each night, but he said that just because he could did not mean that he would. What it sounds like my friend is saying is that just because we have the ability or power to do certain things is not reason enough for us always actually to perform these actions. I believe taking this idea to heart is one of the foundational

components of humility. A bit of humility is visibly absent in Callicott's land ethic, as it promotes the community's interests over the individual's interests. An ethical theory based in humility, on the other hand, would do its best to balance the needs of the individual with the needs of the community. In short, an environmental virtue ethic would understand that the community cannot be placed above the individual because both play powerful roles in the ordinary functioning of the other.

If applied to the environment, humility would suggest that humans should recognize the power they wield over the rest of the animals and all of nature. But it would require the knowledge that this power can be spent in multiple ways: it can be used to harm the natural world, or it can be used to improve upon it. An arrogant person would likely choose himself over nature, not realizing that humans actually have an important place within nature rather than existing apart from it. Those who view the land as a commodity rather than a community are more likely to misuse and abuse it. The virtue of humility, however, allows for respect of the land and could help foster a sense of community within it.

Both compassion and humility could open the door to the virtue of *wonder* regarding the immense beauty and the spectacular complexity of the environment. A sense of wonder, in addition, could connect us to where we stand in the world in relation to other animals. On one hand, we possess unique powers of deliberation. With our technology, for instance, we can explore the heavens and hypothesize about the beginning of our universe. We have creative and imaginative abilities that have eluded millions upon millions of species before us and all others that are among us today. In addition, we can exercise immense power over nature in the blink of an eye, and, unlike

any other animal, we can uniquely contemplate our place in nature and reflect on the ways we alter it. In many ways, we are alone on a pedestal looking down at the rest of the natural world. On the other hand, there are many ways that we are not alone in nature. Indeed, humans have evolved a powerful gift of critical thought. Surely, this makes us different from other animals, but we might be remiss to suggest it sets us apart from or above them. Contrary to what some believe, *Homo sapiens* is not the only species that has some type of awe-inspiring capability. In fact, all species are worthy of a certain amount of wonder as they all are unique, and, in addition, we could learn important things from many of them. A little curiosity and wonder can open our minds to remarkable things. For instance, the shark is a master at finding prey by detecting electric fields generated by their movement; the owl, thanks to some velvety feathers that acts as a muffler of sorts, hunts for prey without making a single sound; a large oak tree, to keep the water cycle afloat, can transpire up to 40,000 gallons of water per year. Dung beetles efficiently proceed thanklessly about their often neglected but important environmental work by using the Milky Way as a navigation aid.

These are but a few modest examples of the spectacularly evolved abilities of everyday flora and fauna that we routinely undervalue, overlook or altogether ignore. When compared to most animals, humans have very little history to their name. As evolved as our minds are, we are more like newborns on the timeline of the history of organisms. Nonetheless, we might be in a sense of wonder about our own accomplishments in this world, but we should be careful to study this storied timeline on which we barely register. If we focus merely on ourselves, we will miss the wonder and excitement of nature, the miraculous adaptations organisms that have evolved over time

in order to overcome predators, and the storied struggle for life that has continuously encumbered species large and small. If we are curious about other life around us, we just might see that other animals deserve our wonder and our admiration—as all types of life have a story to tell. Rolston adds:

> Organisms have their own standards, fit into their niche though they must. They promote their own realization at the same time that they track an environment. They have a technique, a know-how. Every organism has a good-of-its-kind; it defends its own kind as a good kind… In organisms, the distinction between having a good-of-its-kind and being a good kind vanishes. To this extent, everything with a good-of-its-kind is a good kind and thereby has value (1988, 101).

The suggestion above is that the predator-prey relationship is a part of nature that is not problematic in nature; in fact, it is essential for its own evolution. A mountain lion is responsible for the fleetness of deer, and deer, in turn, are responsible for the stealth of the mountain lion (Byers, 1992, 34). No doubt, the relationship between predator and prey is an unspeakably tense one, but in another way, the two, through acts of constant conflict, help each other to coevolve.

We might also wonder at the natural beauty of animals—the hypnotic black and white stripes of a zebra or the delicately striking patterns on a butterfly's wing. Not only are we aesthetically pleased with many of nature's organisms, we are engrossed by the power of evolution and the intricate capabilities it has endowed these creatures.

A sense of wonder not only allows us to value the natural world, it also opens a door for us to learn about it. Whereas wonder is a feeling, learning about and coming to an understanding of nature is another level of appreciation and admiration for the environment. For example, natural structures, such as the Grand Canyon, can produce a sense of aesthetic wonder as some have evolved over millions of years through a steady

process of water and wind erosion. But one need not travel across the country to visit such a monumental structure to feel nature's awe-inspiring presence. For me, lying in the grass in the shade of an oak tree is enough. The shade is comfortable, but connecting to the outside world and relaxing in its beauty provides me with an inner peace and can be a sanctuary.

The final virtue, I believe, that is essential for an environmental virtue ethic is *prudence*. Prudence is concerned with how to act in particular situations rather than theoretical ones. A highly practical virtue, prudence determines actions by employing careful conduct and informed planning and is sometimes referred to as practical wisdom. Experience is key for prudent actions. Insofar as prudence is the act of making wise decisions, it follows that without this virtue the others are likely unattainable. For without prudence, we could not properly decide if our actions are for the right reasons and directed toward the right people and at the correct time.

Prudence requires a sense of open-mindedness necessary for understanding precisely *why* an act might be virtuous. For instance, a donation of money to someone who neither needs it nor asks for it is likely a donation that is unwise. This action, while some might consider it to be kind or one of charity, is actually neither. Not only is the act profligate, it is parochial in that it fails to correctly see that the gift is unnecessary, at best, and unwanted, at worst. This virtue of practical wisdom directs our actions toward the mean and makes them virtuous. Without it, we have no virtue. Without it, we are like blindfolded archers attempting to hit our targets—we might be fortunate a time or two and hit the bullseye, but this would be a result of chance and not, as Aristotle says, by "complete perfection through habit" (*Nicomachean Ethics* II.1.1103a26-27).

Concerning the land ethic, an excessively holistic outlook, such as one held by Callicott, undervalues the individual while an excessively individualistic viewpoint undervalues the community. Prudence can help us find a balanced holism and explains why we must not undervalue either the individual or the community. Prudence, in other words, demonstrates that valuing only the community, as Callicott's precept suggests, means we naively conform to the group. We lose our individual worth as a result by following the crowd. On the other hand, valuing only the individual is egoistic and is subsequently inconsistent with the development of many virtues, including compassion, generosity and kindness.

To put in perspective one example of an action requiring environmental prudence, consider a lightning strike that sparks a wildfire. This might not be the emergency it seems; in fact, firefighters and wildfire managers might value the fire as something necessary for the health of the local environment. They know that in the wild not all fires are created equally—some need suppression, some need to burn. Fires that are allowed to burn allow for the eating away of old material, rejuvenates the wilderness and acts as a connective thread in nature's cycle of life.

From the general perspective of human nature, fire is seen as threatening, destructive, even lethal. For Mother Nature, fire is life-affirming and paves a new path for growth of ecosystems. But only an experienced agent could determine when the time is right to let a wildfire go unchecked. As no two fires are the same, no decisions can be made with a rulebook—it takes prudence to know how to act, when to act, for what reason and why. This is a crucial difference between an environmental virtue ethic and an ethic based on deontology: virtue requires prudence to understand action, but deontology

is more like an ethics-by-rulebook and so does not require the virtue of prudence. Advocates of Callicott's land ethic, consequently, are not required to truly understand their actions—even if they are as extreme as fascism—because they only need to know what the action is as it is stated by the principle precept. Someone using prudence, however, would not engage in such an extreme action.

Individuals need environmental prudence as well if they are to act virtuously. Routinely we face many decisions today that reflect our individual values toward nature. From the cars we drive to the food we eat and even the manner in which we treat our local environment, our choices say a lot about how we value the natural world. Nevertheless, we still must make individual choices that follow our own paths of reason and our own practical wisdom. For instance, my actions to show respect to the natural world—the car I drive, the food I eat, the overall lifestyle I choose, etc.—very well could be quite different from everyone else's. Some might not be able to play part in protecting the environment, for as Keown says, it is sensible to focus on establishing order first in our own house and then turn to environmental causes. Indeed, prudence not only instructs us to understand that some might not be ready to help the environment, it directs us to be understanding that people can be different from us.

Gentleness and caring might be other virtues essential to an environmental ethic. In "The Land Ethic," Leopold spoke of the need for cooperation, yet he also suggested that our ethical relationship to the land would fail unless we felt love and respect for land and cherished its value in its own right (1949, 223). The biggest challenge to the land ethic, he said, was that it wasn't embraced by the educational and economic systems. Worse yet, he feared the two systems were losing ground in the hope of engaging with

and embracing the land. Leopold feared what he envisioned—that we are evolving to have no true relation to the environment around us, that we relate to it simply as a "space between cities on which crops grow" (224). The land, in brief, bores us, and it is something we have outgrown.

In 1949, Leopold's world must have looked quite different from today's. The environmental challenges we currently face tower over those of Leopold's time. A felt environmental virtue ethic that incorporates compassion, humility, wonder and prudence, in my opinion, is the best way to take "the third step" in the sequence to embrace the land ethic. If we want to value the land as we should, we need the mindset that is open to love, compassion and humility. If we are not of the virtuous kind, Leopold's nightmarish vision in which we have outgrown, are bored by and have no relation to the natural world, I believe, will quickly fall upon us. The only antidote, I believe, to fight these poisons seeking to numb us of our feeling of the natural world are already naturally within us—the virtue of prudence acts as a guiding beacon to shine a path down this road less traveled, the virtue of wonder overcomes the deadening effects of boredom, and compassion and humility together show us there is a place—a wonderful place—for us within nature.

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