Ecologist and conservationist Aldo Leopold envisioned in 1949 that humanity’s ethical sense of moral community was in the process of becoming extended to embrace ecological relationships. Referring to this ‘extension of ethics’ as a ‘land ethic,’ Leopold explained, “The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.” It has been sixty-five years since Sand County Almanac was published. Few scholars were writing about ecological ethics at the time. Over the intervening years, though, ecological ethics has moved from a non-concern to a marginal concern to a central concern in ethics. There is now a multitude of voices contributing to the discussion.

This essay summarily describes and compares several approaches to the expansive conversation about ecological ethics. The writers I discuss in this essay may or may not identify themselves explicitly within the Leopoldian tradition, but they all present particular theological or ethical foci on an expanding moral vision that is inclusive of ecological concern. There are seven such foci involving re-centering or de-centering the vision of moral community: (1) a localized focus, (2) an augmentation of traditional anthropocentric humanism, (3) a re-centering on animals’ experience, (4) theocentric ethics, (5) ecofeminism, (6) “ecocentrism” or a de-centering focus on value within ecological relationship, and (7) an expansive or cosmic focus.

The typology is a heuristic one for the sake of bringing disparate writings that reconceive moral community into conversation with each other. The method is inductive as well as comparative—allowing similarities and differences to become salient as comparison is made. A particular point of comparison, it will be seen, pertains to purposefulness and value in the natural world. Moreover, an irony will become apparent. It will be seen that despite the expansiveness of moral vision, and even with moral value ascribed beyond the purview of human interests, it is human agency that is empowered to act on these perceptions of value.

Localized Focus

Two writers who have sharpened a focus on land as locus are Wendell Berry and Belden C. Lane. The land is first of all the subject of their focused attention, inspiring their reflections. However, the land as particular place is also the lens through which they are able to view other lively connections—biological, social, and spiritual.
Lane offers four axioms for studying sacred place. The first axiom is that “sacred place is not chosen, it chooses.” Second, he states, “sacred place is ordinary place, ritually made extraordinary.” Third, “sacred place can be tread upon without being entered,” and fourth, “the impulse of sacred place is both centripetal and centrifugal, local and universal.”

Particularly moving are Lane’s own reflections as he himself encounters the New Mexican desert and writes about this encounter in his book, *The Solace of Fierce Landscapes*. In the apophatic tradition, he enters the desert for help in comprehending his own recent grief after his mother’s death. He defines the apophatic tradition as “a tradition in spirituality that rejects all analogies of God as ultimately inadequate.” For Lane, though, “talk about God cannot easily be separated from discussions of place.” As a result of his journey in the desert, Lane does speak of rediscovering Christ in the fierce landscape of the desert through three dimensions in particular: “confrontation with the land itself, a deeper appreciation of silence, and a richer insight into the ‘world-constructing’ power of the liturgy.” Belden Lane was influenced by Wendell Berry’s observation that “certain places . . . offer a sense of meeting, if one can only learn to wait and be patient.”

Wendell Berry, who has written poetry and fiction as well as cultural analysis and spiritual reflections on place, has grounded his writing intentionally in the land of his upbringing in Kentucky. His essay, ‘A Native Hill,’ makes this explicit. He explains:

> When I thought of the welfare of the earth, the problems of its health and preservation, the care of its life, I have had this place before me, the part representing the whole more vividly and accurately, making clearer and more pressing demands, than any idea of the whole.

He asks questions that begin with his orientation to the land: “What *is* this place? What is in it? What is its nature? How should men live in it? What must I do?” These are “fertile questions,” says Berry; they are moral, aesthetic and practical, promising “a relationship to the world that is decent and preserving.”

Wendell Berry finds in his relationship to place food for reflection on his own body and soul, his own life and death. For Berry, though, this is not a retreat away from the world but rather an intentional relating to the world in order to focus more clearly on the entire network of relationships linking him with the world-violent relationships as well as those that sustain and promote heath, minute relationships as well as massive. Thus localized and grounded, he is able to articulate a vision of an ecologically healthier society: an agriculture in balance with nature, an economy in balance with this agriculture, a culture in keeping with this kindness, and a God connected with this creation. Wendell Berry speaks of the topsoil as ‘Christ-like in its passivity and beneficence,’ receiving death into its depths and returning life in its time. Berry affirms that God is seeking to preserve both the church and the world, and he expresses hope that a renewed Church might help ensure the survival of the planet. His book, *Citizenship Papers*, draws from his agrarian vision in order to critique the recent warfare and the culture of violence and fear in America that is fuelling it.
Re-centering: Anthropocentric Humanism

Lynn White, Jr’s charge in 1967 that the ecological crisis was largely due to Western Christianity’s anthropocentrism echoes Aldo Leopold’s earlier appeal for a land ethic that would move beyond an exclusive emphasis on human society.11 The World Council of Churches’ study program on “The Future of Man and Society in a World of Science-Based Technology” held a series of conferences between 1969 and 1975. One of the inputs to this conversation was Lynn White’s essay, but there were other contributors as well from both the biological and the social sciences to this theological conversation: Kenneth Boulding, E. F. Schumacher, Herman Daly, Jorgen Randers, and Charles Birch. Two ethical concerns were highlighted as a result of these discussions: (1) a moral concern for future human generations and (2) a moral concern for nature itself. The ethical norm of ecological “sustainability” emerged from these discussions—initially at a conference in Bucharest in 1974 that called for a “just and sustainable society.” This was reiterated the next year at the meeting of the WCC Assembly in Nairobi which promoted a “just, participatory and sustainable society.”12

This conversation was innovative with regard to the attention it gave to ecological science in expanding the areas of concern for Christian social ethics.13 Nevertheless, the theological dimension of this conversation often returned to anthropocentric interpretations of dominion over nature even while acknowledging human moral responsibility for wellbeing in the natural world. For instance, theologian Thomas Sieger Derr, a participant in these discussions, claimed an anthropocentric perspective when he summarized his own position as follows:

To the basic notions already adduced in support of a socially just environmental ethic—the priority of human welfare over nonhuman nature; the incorporation of nature into the sphere of history and ethics; a sober and chastened anthropocentrism; a positive view of the possibilities for technology and civilization; acceptance of man’s dominion as a call to an intentional, purposeful life; a commitment to defend the value of each individual human being; recognition of an obligation to future generations— to these essential ideas we must add another critical concept. This is the proper management of possessions.14

In 1996, Derr reiterated this perspective, unapologetically claiming an anthropocentric viewpoint. Quoting Aldo Leopold, Derr admits that he can neither “think like a mountain” nor like God for that matter, so in “modesty” he begins with human concerns rather than with presumption about cosmic intent concerning creation.15

What are the alternatives to anthropocentric ethics? One strategy has been to augment traditional ethical reasoning by locating moral value in such a way that value can be seen to be shared between humans and other creatures (at least by analogy if not by ontology). I will describe briefly two different examples of recentering value by such augmentations that were also developed in the mid-seventies: (1) Peter Singer’s Animal Liberation and (2) a process hierarchy of value. Further, some have attempted to write ethics “from a theocentric perspective;” James Gustafson is notable for this approach, following the work of his own teacher, H. Richard Niebuhr. Another strategy has been to de-center (or at least to de-hierarchicalize) value so that it is more dispersed and found within ecological relationship itself. In this regard, ecofeminism and deep ecology will be described and compared.

Re-centering: Animals’ Experience

Some have attempted to re-center ethics by highlighting the moral importance of some characteristic, attribute, or capacity that is shared between humans and other creatures. Peter Singer, author of *Animal Liberation*, bases his argument for non-violent relationships with animals on the capacity of animals to experience pain. It is our duty to minimize pain in general, which constrains us morally to respect other animals equally in this regard and to minimize their suffering. The argument is essentially utilitarian (despite his identification with the animal “rights” movement), and Singer cites a footnote from Jeremy Bentham as central to his argument. That which is of fundamental moral importance to Singer is the capacity to feel pain, so that consequently we are obliged to minimize the experience of pain in animals as well as in humans.

Others who are oriented in the process philosophy of Alfred North Whitehead, such as John Cobb and Charles Birch, have developed a hierarchy of value based on a creature's capacity for “richness of experience,” that is, the capacity of a creature to fully experience and to integrate the experiences of his/her/its environment. Their hierarchy of entities develops from aggregates which have no intrinsic value, through cells, plants, and animals, and finally to humans. What sets each group apart from the last is the amount of richness of experience possible because of each level of coordination, culminating in well developed nervous systems. This is in keeping with Whitehead, who originally developed this hierarchy as a part of his philosophy of organism.

In both of these examples—animal utilitarianism and the process hierarchy of value—the attribute selected by the ethicist as morally important is an attribute understood to characterize human beings, which is then reinterpreted to apply to other creatures as well. Each system represents a modification of a standard system of philosophical ethics. Singer’s is an extension of utilitarianism. Similarly, the process hierarchy of richness of experience and consciousness can be seen as at least analogous to a Kantian understanding of autonomy understood as rationality; indeed the argument that rights should be based on intrinsic value is similar to the moral importance Kant gives to autonomous, rational beings who are ends in themselves.

Re-Centering: Theocentrism

Ecologically, one might argue that extrinsic value is as important as intrinsic value. In *Sand County Almanac*, Aldo Leopold provided a brief natural history of the Wisconsin peat bogs in which he showed how the native cranes thrived through early economic utilization of the bogs. With the draining of the bogs for the sake of a more intensive agriculture, however, the cranes and other creatures of the bogs suffered. Leopold criticized a crassly economic instrumentalism that exploited natural ecosystems for economic utility alone. Instead, he advocated for the well being of the entire biotic community. “A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community,” he wrote. “It is wrong when it tends otherwise.” Ecologically, creatures live in instrumental relationship with one another and with the land itself.

Writing after Leopold, H. Richard Niebuhr expressed a similar understanding of value in relationship. Value for H. Richard Niebuhr was primarily value that beings provide for one another—not value in and of oneself. “Nothing is valuable in itself,” he stated, “but everything has value, positive or negative, in its relations.” Ultimately, the cen-

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ter of value for all that exists in interrelationship is God.\textsuperscript{22} Niebuhr wrote as early as 1952, however, that the value theory of monotheistic theology would allow for the construction of many relative value systems with different provisional centers as one considers “the interaction of beings on beings, now from the point of view of man, now from the point of view of society, now from the point of view of life.”\textsuperscript{23}

James Gustafson further developed this line of thought—theocentric ethics as an alternative to anthropocentric ethics. His two volume work, \textit{Ethics from a Theocentric Perspective}, allows him to apply a theocentric perspective to both theology and ethics, to social institutions, to individual agency, and to the earth itself.\textsuperscript{24} Gustafson’s theocentric approach to ethics, including particular responsibility for God’s creation, was already evident in much of his earlier work. In \textit{Can Ethics Be Christian?}, Gustafson wrote that the heart of ethics is our “radical dependence” on God as Creator, resulting in both a sense of our own finiteness and a trust in the goodness of both Creator and creation.\textsuperscript{25}

\textbf{Ecofeminism}

Ecofeminism is concerned, in Karen J. Warren’s words, with the “connections between the domination of women and the domination of nature;” it strives to “make visible” these connections and to “dismantle them” when harmful to women and nature.\textsuperscript{26} Val Plumwood has further emphasized that androcentrism in particular is harmfully linked with anthropocentric patterns of human domination over nature and conceptual separation from nature. As a striking example, Plumwood notices that even Aldo Leopold’s call for a land ethic assumes this androcentric or patriarchal framework for ethics. His vision of a broadened ethics can be seen, in her words, “as the final step in a process of increasing moral abstraction and generalization,” which is characteristic of patriarchal dualistic thinking that separates reason from emotion, as well as the self from others and humanity from nature.\textsuperscript{27} Both Warren and Plumwood see the ecofeminist project as engaged in overcoming these dualisms, and both find particularly significant an ecofeminist emphasis of reconnecting our conception of selfhood with nature.\textsuperscript{28}

Warren’s and Plumwood’s sentiments resound with themes presented by other feminists who have written previously about ecological concerns. Mary Daly, for instance, begins her book, \textit{Pure Lust}, with a sobering linkage between women’s experience of patriarchal oppression and ecological danger.\textsuperscript{29} Daly’s method emphasizes the importance of freeing consciousness through reinterpretation and new conceptual connections. This reinterpretation is based on women’s lived and active experience and includes intuitive experience and ancestral Memory. For this task, Daly constantly invents, or discovers, new words. Patriarchal society is alternately called the Sado-society, phallocracy and bore-o-cracy. There is a “deep correspondence” between the structures and processes of the mind and reality itself. The sadosociety denies this correspondence and attempts to prevent women from realizing it. The result is that all of nature is reduced to mere matter for use by the phallocracy, and women are mortally wounded on a deep, psychic level. The act of remembering heals this breach, thereby allowing women to realize their Ele-

\begin{itemize}
\item \textsuperscript{22} H. Richard Niebuhr, \textit{The Responsible Self} (San Francisco: Harper & Row, 1973), 125.
\item \textsuperscript{24} James M. Gustafson, \textit{Ethics from a Theocentric Perspective} (Chicago: The University of Chicago Press, 1984).
\item \textsuperscript{27} Val Plumwood, “Nature, Self, and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism,” in \textit{Environmental Philosophy}, 294, 308-9.
\item \textsuperscript{28} Warren, “Introduction” 272-3; see also Pamela Smith’s analysis of this conversation in \textit{Environmental Ethics}, 19-33.
\item \textsuperscript{29} Daly, \textit{Pure Lust:Elemental Feminist Philosophy} (Boston: Beacon Press, 1984), ix.
\end{itemize}
mental potency. This is not only a cognitive process but is energetically emotional. The new consciousness, which is alternative to the necrophilia of sadosociety, is termed "biophilic consciousness."

Daly was writing in the 1970s and 80s. Increasingly since that time, ecofeminists have been especially explicit in making connections between feminist philosophy and ecological or biospheric concerns. The 1990s saw the publication of several titles that focus theological and ethical attention clearly on the relationship with the earth and earth's need: Rosemary Radford Ruether's *Gaia and God*, Sally McFague's *The Body of God: An Ecological Theology* and later her *Life Abundant*, and Anne Primavesi's *From Apocalypse to Genesis: Ecology, Feminism and Christianity* and later her *Sacred Gaia.*

Ecocentrism: Deep Ecology

The “deep ecology movement” also combines in its own way some of the elements that find connection in feminist thought: (1) an ethical affirmation of the intrinsic value of all creatures, (2) a movement to refashion political and economic life to be respectful of this ecological value, and (3) an ecologically connective understanding of the self. Arne Naess is credited as the founder of this movement. His earlier work in the 1970s provided the philosophical underpinnings of deep ecology, including a broadly ecological psychology of self-realization that connected the self with biodiversity and with ecological sustainability. His later work promotes an eight-point platform that advocates the intrinsic value of non-human life and that challenges human society to make the structural changes necessary to enable the flourishing of non-human life.

Deep ecologists, such as George Sessions, are deliberate in identifying this movement within an ecocentric tradition that is traced to Aldo Leopold, among others. Also, interpreters of the deep ecology movement, such as Joseph R. Des Jardins, find a similarity between this movement and Leopold's land ethic with regard to the central importance afforded ecological science.

In comparing deep ecology with ecofeminism, Pamela Smith has suggested that ecofeminism tends to be more visionary and “teleological” in its ethical reasoning; in other words, ecofeminism tends toward a transformative ethic that looks to realize a greater good. “The goal or end of all living systems is seen to be harmonious, organic flourishing,” Smith writes of ecofeminism. “Whatever advances this harmony and is beneficial to the well-being of each part of a living system is good.” In subtle contrast, one might see deep ecology to exhibit a more deontological ethic—articulating its position with reference to the language of moral rights as well as to explicitly deontological norms.
Ecocentrism: J. Baird Callicott

Identifying with deep ecology but drawing from a different philosophical well than most deep ecologists, J. Baird Callicott explicitly argues for a deontological environmental ethic. Callicott wants to expand ethics in two directions at once. One direction is from an exclusive moral concern for human beings to a broader moral concern for other aspects of nature; the other direction is the expansion ‘from part to whole’, that is, from ethical individualism to an ethical priority on community. Both of these expansive directions—beyond anthropocentrism and beyond individualism—are ingredients in his advocacy for a holistic and eco-centric environmental ethic.

Callicott emphasizes the importance of valuing ecosystems and ecological relationships intrinsically. Nevertheless, Callicott considers the act of valuing itself to be human activity, which is the activity of the subjective valuer. He therefore speaks of the intrinsic value of non-human entities—not as value that they may be thought to have located ‘in themselves’ but rather as value that we might affirm toward them ‘for themselves.’

Callicott explicitly identifies his work within the Leopoldian tradition regarding the development of a land ethic. He develops philosophical underpinnings for this land ethic, however, by turning to the theories of ‘moral sentiments’ in the works of David Hume and of Adam Smith. By finding the source for morality to lie in the sentiments rather than in rationality per se, Callicott is able to delineate our evolving moral community broadly in order to encompass ecological relationship. Our moral sense of community is expanding, in other words, beyond the community of rational persons and even beyond the community of other organisms that may be thought to be more or less like us so as to include our entire natural environment. Callicott quotes Leopold’s initial maxim in summarizing the land ethic: ‘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.’ Callicott has attempted to further modify this in response to his reading of ecological theory that emphasizes natural dynamism and flux rather than an idealized balance of nature; he writes: ‘A thing is right when it tends to disturb the biotic community only at normal spatial and temporal scales. It is wrong when it tends otherwise.’ In either iteration of this moral maxim, however, the emphasis is on promoting and maintaining ecological relationship. Callicott does not extend this ethic beyond the biosphere to include outer space.

Cosmic Focus

Finally, there is an expansive or cosmic focus. Neither Brian Swimme nor Thomas Berry write much about Aldo Leopold, but they do describe Leopold’s essay on “A Land Ethic” in Sand County Almanac as marking the begin-

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39 Callicott, In Defense of the Land Ethic, 64, 112
42 Anne Marie Dalton, A Theology for the Earth: The Contributions of Thomas Berry and Bernard Lonergan, Religions and Beliefs Series, no. 10 (Ottawa:
ning of a “deep consciousness” of our ecological plight in the transition from the Cenozoic to an Ecozoic Era in the life of the earth.\textsuperscript{45} The Ecozoic Era is characterized by the development of “mutually enhancing human-Earth relations,”\textsuperscript{46} including transformation of social institutions. Of religion and morality, they write:

Religion begins to appreciate that the primary sacred community is the universe itself. In a more immediate perspective, the sacred community is the Earth community. The human community becomes sacred through its participation in the larger planetary community.

In morality we are expanding our moral sensitivity beyond suicide, homicide, and genocide to include biocide and geocide, evils that were not recognized in our civilizational traditions until recently.\textsuperscript{47}

I am reminded of Leopold when I read these words about the expansion of sacred community and of moral concern. Both speak of a need to expand our consciousness of ourselves in order to realize that we are embraced—physically, spiritually, and morally—within a wider community. Now, though, that community is not just the ecological household of other beings living and growing on the land but the cosmic ecology of the universe. Furthermore, with the new cosmology exemplified by Swimme and Berry, one finds Teilhardian teleology inspiring the vision rather than Leopold’s Darwinian language about evolutionary possibility.\textsuperscript{48}

One edition of Teilhard’s \textit{The Human Phenomenon} contains a foreword written by Brian Swimme, in which he recounts his discovery of this book under the tutelage of Thomas Berry. He tells of an epiphanic moment when, while watching his son playing in some woods, he imagined seeing his son and the woods and the stream flowing nearby all as fluid and molten and blazing with the energy of the universe. He writes: “I knew most likely I would soon crash back into normality, but I was also aware of delightful mystery.”\textsuperscript{49}

\section*{Conclusion}

Several perspectives on an expanding moral vision have been considered here. Each, it has been suggested, provides a different focus to the evolving ethical landscape imagined by Leopold. A localizing focus was seen to discover in the particularities of place a microcosm for discerning oneself in one’s wider relationships. A cosmic focus has provided an expansive image of mystery and of our belonging within an unfolding universe. Several examples of re-centering or de-centering the focus on values have also been discussed. We considered value as a function of the capacity of creatures for richness of experience (process theology) or to experience pain (animal liberation). We contemplated God as the ultimate Center of value within an understanding of relational value inclusive of all creation. Similarly, both ecofeminism and deep ecology were found to emphasize the moral importance of ecological relationships and connections.

These foci are not mutually exclusive. They each attend to different aspects of our life together on earth: to the sacred in particular place, to moral value in nature or in relationship, and to the mystery of the unfolding universe. It is easily possible to embrace each of these perspectives in combination with each other—depending upon the area or areas to which one is focusing attention: place, value, relationship, and cosmos.

\begin{itemize}
\item University of Ottawa Press, 1999), 69–73, citing Thomas Berry, \textit{Teilhard in the Ecological Age}, Teilhard Studies, no. 7 (Chambersburg, PA: Anima Books, Fall 1982), 16, 32.
\item Brian Swimme and Thomas Berry, \textit{The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era--A Celebration of the Unfolding of the Cosmos} (San Francisco: HarperCollins, 1992), 253.
\item Swimme and Berry, \textit{The Universe Story}, 280.
\item Swimme and Berry, \textit{The Universe Story}, 257.
\item Dalton, \textit{A Theology for the Earth}, 73.
\end{itemize}
Within the particular focus that centers on matters of moral value, however, there does seem to be a variety of perspectives representing clear alternatives to one another. These alternative perspectives pose at least three different questions regarding moral value. One question is that of the putative ‘center’ of value—whether found in humanity, in animals, in ecological relationship, or in God. Another question concerns the attribute(s) of entities that leads us to characterize them as morally important or valuable, e.g. autonomy, capacity for pain, ecological health, and sacredness. A third question attempts to distinguish meaningfully between concepts such as intrinsic and instrumental value. These questions of value have implications for our understanding of moral agency.

Even in a brief comparison of these different constellations of value, a tension can be noticed with regard to human moral agency. The act of valuing itself empowers the valuer as moral agent. Ironically, even in seeking to determine value in nature, it is human agency that is thus empowered. This would seem to be true for determinations of nature’s intrinsic value as well as instrumental value. In either case, such value needs to be recognized as placing a claim on human agency, and human agency, in turn, is tacitly acknowledged as empowered to act in accord with that perceived value.

It is also the case, however, that humanity is vulnerable as well as powerful in relationship to the rest of nature. We are biological as well as social beings shaped by our natural environment and by our culture. We are vulnerable not only ultimately for our survival on natural systems but also in subtle and constant ways to our ecology for our most basic being.

One would not want to lose a sense of human responsibility within nature by dispersing, de-centering, or diffusing value so broadly that human agency is lost. The examples considered here do not fall into this temptation to abdicate from responsibility, but the tension is nonetheless highlighted. To decide the question of value is to raise the question of agency. This tension, though, is a realistic one—correlative to the balance between human power and human vulnerability in ecological relationship.

The question of moral value in nature is impelled by this shifting sense of ourselves as both powerful and humble in ecological relationship. The attempts to address the question of moral value discussed in this essay—by conceptually re-centering or de-decentering—all frame that question within a context of greater human humility rather than hubris. The challenge, though, is to responsibly respect the continuing power of human moral agency while humbly honoring our mutual vulnerability within natural community.

Of the writers discussed in this essay, J Baird Callicott is one whose work seems to find this balance between an appreciation of human vulnerability in ecological relationship on the one hand and an acknowledgment of human agency in valuing nature on the other. Callicott has also been the most dogged of these writers in pursuing Aldo Leopold’s original, ecologically informed vision of an expanding community of moral concern. At the same time, however, Callicott’s fidelity to Leopold’s moral vision constrains the expansiveness of that very vision.

Even while attempting to place his own work within a postmodern context of deep ecology, Callicott has continued to wrestle with scientific assumptions inherent in Leopold’s earlier modern worldview, namely (1) ecology as natural science and (2) a Darwinian account of evolution as natural selection. As a result, Callicott not only eschews specifically supernaturalist explanations of natural phenomena but also avoids all teleological accounts that might posit purposefulness within natural being. Purposefulness, though, beckons.

Even in Leopold’s earlier writing about the land ethic, a sense of purposefulness might be inferred. Leopold’s suggested maxim that ‘a thing is right when it tends to preserve the integrity, stability and beauty of the biotic com-
community”\(^{50}\) seems to posit three goods, or teleological goals, to be realized: integrity, stability, and beauty. Moreover, teleological language about purposefulness has continued to be meaningful within scientific discourse concerning organisms, health, and the relationship between organ systems: organs are functioning well when they promote the health of the organism. Conversely, organisms act well when they promote the healthy functioning of their own organs. This teleological perspective of organism is usually assumed, however, rather than developed as a theory of causality.

Ecosystems are only metaphorically like organisms. Such a metaphor may have given rise to overstatement in the past and may no longer be in vogue among natural scientists. But to the degree that the metaphor is meaningful, we may reason analogously about purposefulness between the parts and the whole. We can reason that we do indeed do well to promote a healthy, natural world and, in particular, its integrity, stability, and beauty. At the same time, a healthy world should be generally conducive to the well-being of its inhabitants. There would seem to be purposefulness inherent in our interrelationships which promote our mutual good. This is a moral biosphere teleologically conceived.

There is intellectual virtue in Callicott’s ecological realism. His rigorous naturalism honors both the Leopoldian tradition and our ongoing ecological realities. The moral imagination that is constitutive of an expanding moral universe, however, also strives to envision purpose. Indeed, it strives as well to envision mystery, awe, and the holy. Each of the foci discussed above provide visionary perspectives in these diverse directions that can complement each other.

In addition to centering or de-centering moral value, we find our very being is located in both landscape and cosmos, we are drawn to both the earthy and the holy, and we reread our sacred tradition in light of both natural history and salvation history. We are both natural and sacred beings living in an earthly communion that is also both natural and sacred. In loosening our claim of mastery, we find ourselves confronting mystery.

\(^{50}\) Leopold, *Sand County Almanac*, 224-225.