A sample entry from the

Encyclopedia of Religion and Nature

(London & New York: Continuum, 2005)

Edited by

Bron Taylor

© 2005 All Rights Reserved comparing that evidence with ethnographic descriptions of modern Amanita muscaria use by Siberian shamans, Wasson and his associate, the Indologist Wendy Doniger, argued that the Aryan tribes had used the mushroom in the homeland. After they expanded into India, however, they were only able to acquire it through trade, since it did not grow in India, and eventually soma's actual nature was forgotten.

Subsequently Wasson, together with research chemist Albert Hofmann (discoverer of LSD) and Classics professor Carl A.P. Ruck, advanced a theory that the Greek mystery religion of Eleusis, practiced from about 1500 B.C.E. until 395, had at its climax a ritual ingestion of a water solution of ergot, Claviceps purpurea, a psychoactive fungus that grows on wheat and barley, from which LSD was chemically derived.

Entheogens provide evidence for the persistence of an "Old Religion," some form of pagan religion persisting in Europe until relatively modern times. Roughly 40,000-60,000 accused witches were executed between the fourteenth and eighteenth centuries, and almost all were at least nominal Christians. Nevertheless, some accused witches were found to use ointments containing such psychoactive plants as Atropa belladonna (deadly nightshade) and Hyoscyamus niger (henbane), plants, which can be deadly if misused. These findings suggest the presence of an underground tradition of their ritual use.

The chief North American religious tradition employing entheogens is the Native American Church, whose rituals include consumption of its sacrament, the peyote cactus. Used for millennia in Mexico, peyote's use spread into the United States in the 1890s as Plains tribes were fractured and relocated onto reservations. In its teachings, the church combines Plains tribal religious ideas with Christianity, thus competing with the Christian missionaries who flocked to the new reservations to make converts. As one church member said, "Our favorite term for Peyote is Medicine. To us it is a portion of the body of Christ, even as the communion bread is believed to be a portion of Christ's body for Christians" (Smith 2000: 117).

An ancient South American entheogen, ayahuasca or vagé, has also spawned formalized international religious organizations. Ayahuasca ("vine of the souls" in the Quechua language of the Peruvian Amazon) is the vine Banisteriopsis caapi, containing the alkaloid harmine, frequently mixed with other psychoactive plants to increase its potency. (Harmine is also present in a Eurasian plant, Syrian rue, Peganum harmala, which has also been put forth as the source of soma.) Its use continues unabated today.

Brazilian churches employing avahuasca sacramentally were founded in the twentieth century. The Santo Daime church originated about 1930 and the União do Vegetal was founded in 1961. Like members of the Native American Church in North America, followers of

the Santo Daime religion speak of their sacramental entheogen in Christian terms: the Daime, the sacred drink, is described as giving them a form of Christconsciousness. Yet its followers also say that their religion incorporated the spiritual force of the indigenous Amazonian peoples. Santo Daime reaches out as well to the Spiritist and Afro-Brazilian religions and urges activism on behalf of the rain-forest. Daimistas, like many other entheogen users, see their sacrament as "both a shortcut and a medicine" that helps them to discover their spiritual identity (Polari de Alverga 1999: 131). "There are no human intermediaries in the Daime" (Polari de Alverga 1999: xxiii).

In Peru and Brazil, since the 1970s in particular, Ayahuasca has also become a component of ecotourism, as outsiders visit Amazonia to study with local shamans and partake of their sacrament. Santo Daime in particular has spread to other South American countries outside the traditional ayahuasca-using region and also to the United States and Western Europe, where Dutch members won in court after being arrested as "narcotics users."

Chas S. Clifton

Further Reading

Forte, Robert, ed. Entheogens and the Future of Religion. San Francisco: Council on Spiritual Practices, 1997.

Harner, Michael, ed. Hallucinogens and Shamanism. London: Oxford University Press, 1973.

Huxley, Aldous. The Doors of Perception. New York: Harper, 1954.

McKenna, Terence, The Archaic Revival, San Francisco: HarperSanFrancisco, 1991.

Ott, Jonathan. Pharmacotheon: Entheogenic Drugs, Their Plant Sources and History. Kennewick, Washington: Natural Products Co., 1996.

Polari de Alverga, Alex. Forest of Visions. Rochester, Vermont: Park Street Press, 1999.

Schultes, Richard and Albert Hofmann. Plants of the Gods. New York: McGraw-Hill, 1979.

Smith, Huston. Cleansing the Doors of Perception. New York: Tarcher/Putnam, 2000.

Wasson, R. Gordon, et al. Persephone's Quest: Entheogens and the Origins of Religion. New Haven: Yale University Press, 1987.

See also: Ayahuasca; Ethnobotany; Huxley, Aldous; Leary, Timothy; Peyote; Umbanda.

Environmental Ethics

Environmental ethics can be defined, in very general terms, as efforts to articulate, systematize, and defend systems of value guiding human treatment of and behavior in the natural world. Philosophical and religious reflection on human obligations toward nature or "other-kind" has a long pedigree in human cultures, whether occidental, Asian, or indigenous. Environmental ethics as a distinctive subfield within Western philosophical and religious ethics, however, did not emerge until the last three decades of the twentieth century.

The roots of modern environmental philosophy predate the emergence of "environmental ethics" as an academic field. In North America, for example, there are critically important antecedents that can be traced to the second half of the nineteenth and early twentieth century, perhaps especially in the writings of American naturalists HENRY DAVID THOREAU and JOHN MUIR;. Both Thoreau and Muir influentially promoted environmental preservation and the setting aside of forest reserves. This encyclopedia is replete with additional examples of the many, global tributaries to contemporary environmental ethics.

From Leopold to Earth Day

But among environmental ethicists in the West, at least, there is widespread agreement that the forester and ecologist ALDO LEOPOLD provided a benchmark against which subsequent environmental ethics can be measured. His short essay "The Land Ethic" in A Sand County Almanac (1949) provided an evocative and profound effort to articulate ethical guidelines for human interactions with nature. In it Leopold defined ethics as guidelines for social or ecological situations, based on individual membership in "a community of interdependent parts." Applying this definition to the environment, a "land ethic," he claimed, "simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land" (239). This enlargement of humans' moral community transformed their place in relation to the natural environment, "from conqueror of the land-community to plain member and citizen of it" (240).

Leopold's land ethic provided a model of and foundation for a type of environmental ethics now known as "ecocentrism" (ecosystem-centered ethics), or alternatively, "biocentrism" (life-centered ethics). Such ethics assert that the well-being of entire ecological communities, not just individual species (like Homo sapiens) or individual organisms, should be the axial moral concern. Ecocentrism therefore challenges most Western philosophical ethics, which tend to be "anthropocentric," namely, focused on human welfare. For such ethics, nonhuman life is valuable at most indirectly, to the extent it satisfies some human need or preference. For ecocentric ethics, human interests do not trump that of all other life forms and the well-being of the biosphere as a whole. An ecosystem, rather than its constitutive parts, is the axial point of moral concern.

The ecocentric approach presented by Leopold and his progeny, challenges environmental ethics to specify which individuals and groups should be given moral consideration, that is, have their interests considered or protected in some way. It also implicitly demands justification for claims limiting moral consideration to individuals or groups that are less than wholes. Indeed, much environmental ethics is engaged in the effort to determine the extent and nature of the moral community and to develop principles for deciding hard cases, such as when the interests of morally considerable organisms conflict.

It would be difficult to overestimate the importance and influence of Leopold's land ethic, although this influence took some time to germinate and grow. To understand its influence, however, the affective, aesthetic, and even religious underpinnings of his writing need to be fully recognized. But the religious dimensions of Leopold's writings are often overlooked in the environmental ethics literature, making it difficult for some fully to apprehend the evocative resonance Leopold has had with readers. Curt Meine's biography of Leopold revealed what can be discerned by the perceptive reader throughout his work: Leopold had a deep spiritual connection to the Earth's living systems and a profound sense of their sacrality, this being the foundation of his land ethic (Meine 1988: 506–7, and in his biographical entry in this volume).

Following Leopold's untimely death in 1949, the next intellectual landmark in the development of environmental ethics was the work of ecologist RACHEL CARSON. In the late 1950s Carson began publishing magazine articles exposing the dangers of radioactive materials, pesticides and herbicides, the creation and use of which had boomed in America after World War II. In her now-famous *Silent Spring* (1962), Carson argued that industrial society was decimating avian populations and threatening the health of many other organisms, including humans.

Less well known are two of Carson's books on oceans, published in 1951 and 1955, in which her own nature spirituality is more obvious than in her exposés of chemical culture. These books illustrate the most powerful themes in Carson's work: a religious reverence for the sea, which she considered the womb of life, and a belief in the connectedness of all living things. The sea, she believed, was the generator and the grave for all: the alpha and omega of the planet. The life of the sea controls the life of the land and thus human life, an axiom that Carson believed should humble human beings (McKay, this volume).

This humility coheres with Leopold's sentiment that humans should act as plain members of the land community, and it subtly conveys her own ecocentric spirituality. It also reflects how important such humility has been in much of the subsequent evolution of environmental philosophy, religious or otherwise. Carson not only helped set the stage for explicitly ecocentric environmental ethics, she also criticized the reductive and instrumental methodology that characterized (male-dominated) Western science since Francis Bacon (1561–1626), thus tilling the

soil for ecofeminism, which would emerge as a particularly vital form of environmental ethics a decade or so later.

While many events and thinkers contributed to the ferment shaping the field of environmental ethics, several additional critically important figures who published in the second half of the 1960s deserve to be singled out for playing a decisive role. Two articles in particular had an immediate impact because they were published in the widely read journal Science.

Lynn White's 1967 argument blamed much of the environmental crisis on ideas that he believed had incubated for centuries within Christianity. White was hardly the first to suggest such a connection, of course. The historians Perry Miller in Errand into the Wilderness (1956) and Roderick Nash in Wilderness and the American Mind (1967) had argued that Christianity fostered antienvironmental attitudes and behaviors. And in The Rights of Nature (1989) Nash showed that a number of Christians, including Walter Lowdermilk, Joseph Sittler, and Richard Baer, had earlier criticized their tradition's complicity in environmental decline before White had.

A year later the biologist Garrett Hardin argued in Science that there is a "tragedy of the commons" wherein, given an ecosystem open to all, individuals pursuing their own interests degrade that ecosystem's resources and their own life-prospects if there are no mutually agreed-upon constraints to limit self-interested behavior and prevent overexploitation. Combined with apocalyptic environmental predictions such as in the ecologist Paul Ehrlich's The Population Bomb (1968), Hardin's much debated 1974 article "Living in a Lifeboat" - which infamously argued that aiding the poor intensifies population growth, environmental degradation, and human suffering generated additional controversy. It forced many to consider, for the first time, the environmental dimensions of public policies and ethical decision making.

Two other works published in the 1960s, one by ERNEST FRIEDRICH SCHUMACHER, the other by Gary Snyder, merit special attention when considering the antecedents to the discipline of environmental ethics and its religious dimensions. In 1966, first as an article in a book, then republished two years later in the first volume of Resurgence, which would become a leading venue for the discussion of religion, mysticism and nature, Schumacher published "Buddhist Economics." In it he argued that "The teaching of the Buddha ... enjoins a reverent and nonviolent attitude not only to all sentient beings but also, with great emphasis, to trees" (1966: 699). Such reverence, he asserted, offers a Buddhist approach to economics that rejects economic growth and material acquisition and strives instead for "highly self-sufficient local communities [which] are less likely to get involved in largescale violence than people whose existence depends on world-wide systems of trade" (1966: 698). Reflecting and

promoting a decentralist ideology that would become common among environmentalists, Schumacher's essay was republished widely and included in the economist Herman Daly's influential, edited works promoting a "steady state economy" (1973: 231-9; 1980: 138-45). Such economies, wrote Daly, Schumacher, and the other contributors to these volumes (discussed below) are more ethical and fitting for a world of limited resources. Schumacher's influence increased dramatically after the publication of Small is Beautiful (1973), which is now considered a classic environmentalist text, and includes his essay on Buddhist economics.

Meanwhile, the poet GARY SNYDER began his influential publishing career in his own way by promoting decentralized bioregional economies, and what in America were alternative spiritualities, as a pathway toward sustainability. Snyder considers himself a "Buddhist-Animist" (Taylor 1995: 114) and his remarkable book, Turtle Island (1969), focused on the ecological spirituality and wisdom of North America's indigenous cultures, becoming the first of many writings in which he offered a religious green alternative to occidental religions. His influence grew rapidly after he was awarded the Pulitzer Prize for this work in 1975.

While much of the religion-and-nature-related intellectual work during the 1960s was critical of occidental religions and/or proffered supposedly greener alternative spiritualities, an important dissent was published by the geographer Yi Fu Tuan in "Discrepancies Between Environmental Attitude and Behaviour: Examples From Europe and China" (1968). Tuan rejected as facile the assumption of a close connection between nature-related beliefs and ideals and actual practices. Specifically, he rejected the claim that occidental cultures before Christianity were relatively benign by pointing to the environmental devastation caused by the Greeks and Romans, and he argued that the Chinese devastated their environment long before Western civilization could have exercised any influence in this regard.

A significant portion of the subsequent debate over religion, ethics, and nature engaged the arguments advanced by all of the above figures. The ferment they created contributed to the social forces that precipitated the world's first "Earth Day" in 1970, which further focused attention on environmental values. Soon the term environmental ethics would come into common usage and the related scholarly field would develop rapidly.

Environmental Ethics beyond the First Earth Day (1970)

Ecocentrism and Deep Ecology become focal points of debate In 1971 philosopher J. BAIRD CALLICOTT placed environmental ethics as a discipline on the academic landscape, teaching what may have been the world's first course with this title at the University of Wisconsin, Stevens

Point, where he then taught. In the following decades Callicott became the world's leading interpreter and promoter of Leopold's land ethics. A central part of his constructive efforts was engaging the LYNN WHITE THESIS. In his many articles, eventually collected in books, Callicott argued that generally speaking, Asian and indigenous religions provide more fertile ground than occidental religions for generating an environmental ethics compatible with Leopold's land ethics. In this way, he supported the outlines of White's thesis and implicitly contradicted part of Hardin's argument, at least insofar as he was convinced that indigenous societies, which traditionally held land in a commons, generally develop environmentally sustainable lifeways and religious mores (now often called "TRADITIONAL ECOLOGICAL KNOWLEDGE") that help to protect their habitats - a point that the naturalist Gary Paul Nabhan and many anthropologists also argued.

The next watershed in environmental ethics occurred in 1972 when the Norwegian philosopher ARNE NAESS coined and explained the term "DEEP ECOLOGY" at a conference in Bucharest, publishing his thoughts in Inquiry the following year. He contrasted "deep ecology" with anthropocentric, "shallow ecology" (which he later more diplomatically called "reform ecology"), by which he meant environmentalism concerned only for human well-being and unwilling to radically reconfigure society toward sustainable lifeways. Naess called his own approach and pathway toward deep ecology "ECOSOPHY T" -"ecosophy" was another Naess neologism meaning "ecological philosophy." In his discussion of "Ecosophy T" one can see the religious dimensions to his belief that nature has "intrinsic" or "inherent" value. (Environmental philosophers variously define and debate the terms "intrinsic" and "inherent" value; specific reasoning about such terms involves "meta-ethics," a task beyond the present purpose. Here these terms are used simply as synonyms for the idea that nature has in some way value in and of itself, independent of human need.)

"Deep Ecology" rapidly became a catchphrase for most environmental ethics claiming nature had intrinsic value. The wider extension of the term and its growing popularity obscured some of deep ecology's distinctiveness, which was frustrating to Naess and some of his collaborators. But in its generic, easy-to-understand version (Naess's own writing, by his own admission, is difficult reading), in which deep ecology is equated simply with a belief in the intrinsic value of nature, the trope found a widespread resonance among environmental activists, scientists, and scholars. "Intrinsic value theory" thus became an important element in the growing environmental ethics debate. Indeed, Naess himself was influential upon scientists developing CONSERVATION BIOLOGY, a field which, like environmental ethics, had important antecedents (in this case in earlier conservation science) but

which emerged with a catchy name and thus a stronger identity in the 1970s.

The next watershed in the evolution of environmental ethics in general, and of non-anthropocentric environmental ethics in particular, was the "Rights of Non-Human Nature" conference held in California in 1974. The conference was convened by John Rodman, a political theorist at California's Claremont Graduate School, who would later declare himself a "radical environmentalist" and articulate his own theory of intrinsic value (Rodman 1983). But the conference was at the time inspired by a 1972 law review article entitled "Should Trees Have Standing?", written by University of Southern California law professor Christopher Stone. Stone argued in this article and a subsequent book that natural objects, including trees, have interests and should have standing in the courts, represented by sympathetic humans. Although the claim that nonhuman nature has rights had been made before Stone's better-known argument, the conference nevertheless was a landmark because it drew together for the first time many of those who were or soon would shape the emerging environmental ethics field.

Indeed, speakers at this conference included several whose publications in the 1960s have already been noted, for example, Gary Snyder, Garrett Hardin, and Roderick Nash. Others included professor of human ecology PAUL SHEPARD, who in 1973 published The Tender Carnivore and the Sacred Game, the first in a series of books arguing that the spiritualities and lifeways of the world's foraging cultures are superior to the world's agricultural societies and the religions that accompany them. Shepard's contributions to deep ecology and radical environmentalism can hardly be overestimated. Dave Foreman, the most charismatic of Earth First!'s co-founders, for example, considers Paul Shepard to be "the most brilliant and provocative intellect of our time" (promotional blurb inside Shepard 1998). Native American scholar VINE DELORIA added his complementary argument, first published in God is Red in 1972, accusing Christianity of waging a genocidal war against Indians and nature and arguing that only indigenous wisdom could save the planet. George Sessions and Bill Devall were also present; they became influential deep ecology proponents upon their publication of *Deep* Ecology in 1985.

Sessions, a philosophy professor at a small college in the foothills of California's Sierra Nevada Mountains, during this conference and in subsequent publications, joined the bandwagon, blaming anthropocentrism and its most forceful bearer, Christianity, for repressing the ecologically sustainable lifeways and spiritualities of the world's indigenous, foraging peoples. He suggested that Western humans could work their way back to a proper understanding of the "God/Nature/Man relationship" via the pantheism of the seventeenth-century philosopher BARUCH SPINOZA. Sessions also likened the presumed

nature-beneficent spirituality of indigenous peoples to what ALDOUS HUXLEY (following Leiznitz and others) called THE PERENNIAL PHILOSOPHY (1945), the nature-mysticism and feeling of oneness with the universe that some believe is a widespread, crosscultural human experience. Sessions credited not only Huxley but also the anthropologist LOREN EISLEY (1970) for recognizing the ecological sensitivity of "primitive man" (Sessions 1977: 481-2), and lauded the poet ROBINSON JEFFERS as "Spinoza's twentieth-century evangelist" (Sessions 1977: 509). Arne Naess had also been influenced by Spinoza, and this provided one of the affinities with Sessions that led to their collaboration on a "deep ecology platform" (Naess 1989: 29), which shaped the identity of this branch of environmental ethics.

While many of the voices at this conference had affinities with what would soon afterward be understood as deep ecology (Snyder, Shepard, Sessions, Devall, and in some ways Deloria), there were other perspectives as well. Another Claremont professor, process philosopher and theologian JOHN COBB also presented, providing an environmentally sophisticated version of Christianity. His presentations suggested that the prevalent critiques of Christianity might well be overbroad. In his conference presentation he drew on Is It Too Late? A Theology of Ecology (1972) the first of his many publications exploring Christian environmental responsibility. Also presenting was Roderick Nash whose work reinforced White's thesis about the ecological calamities brought on by Christianity (1973). Observing the greening of Western philosophy and religion in the 1970s and 1980s, however, Nash eventually argued differently in The Rights of Nature, asserting that environmental ethics can be well built on occidental cultural roots.

Not long after this conference, in 1976, George Sessions began publishing the first of six issues (the last in January 1983) of Ecophilosophy (a term borrowed from Naess for "ecological philosophy), an irregular newsletter distributed to about 150 scholars around the world. Many of these scholars consider this to have been an important incubator for the emerging field. But by 1979, another philosopher, Eugene Hargrove, with the support of the John Muir Institute for Environmental Studies (illustrating the field's continuity with early conservationism), began publishing Environmental Ethics, which would become the discipline's flagship journal, and facilitate the rapid development of the field. The journal regularly engaged religion, and Hargrove facilitated such discussion not only in its pages, but also in Religion and Environmental Crisis (1986), which examined a number of religious traditions. On the tenth Earth Day in 1980, a colloquium on environmental ethics held at the University of Denver was organized by Donald Hughes, who had himself joined the fray as early as 1975, analyzing occidental culture's contributions to world environmental degradation. (See EGYPT, GREECE, and the ROMAN EMPIRE for his current perspectives on these cultures.)

Animal Welfare Ethics add to the ferment

Not all environmental ethics, of course, express ecocentric or deep ecological values, as did so many of those drawn to the 1974 conference. The mid-1970s were also a time of creative approaches that focused on the welfare of individual animals or certain kinds of animal species. In 1976, for example, philosophers Tom Regan and Peter Singer coedited Animal Rights and Human Obligations, introducing to a wide audience both animal rights and animal liberation. Regan's "animal rights" theory endeavored to convince others to extend individual rights to those other beings who were "subject of a life," that is, basically conscious of their own good. Singer, an Australian philosopher, borrowed from the English utilitarian Jeremy Bentham for his secular theory of animal liberation. Singer argued that the pleasure and pain of all sentient organisms deserves moral consideration and that actions are right that, on average, increase the former and decrease the latter. He used the argument to defend both illegal and extra-legal campaigns to reduce animal suffering. His later hiring at Princeton University into a prestigious academic position drew strong protests from those who rejected his view that humans deserve no more moral consideration than other sentient creatures.

Others followed with theories of their own focusing on the rights or interests of animals. Paul Taylor, for example, drawing on the early twentieth-century work of physician ALBERT SCHWEITZER, argued that moral agents owe respect to all organisms, as individual "teleological centers of life," which properly pursue their own ends and should be allowed to do so.

The role of primatologists (first and especially JANE GOODALL) and other ethologists (scientists who study animal behavior), contributed decisively to theories of animal welfare. They did so by overturning a wide variety of common assumptions regarding human uniqueness (such as that only Homo sapiens use and fashion tools, or have emotional lives and suffer), and the notion that animals are mere moving machines, "automata," as French philosopher Rene Descartes famously put it in Discourse on Method (1637).

Although animal rights ethics have usually been articulated in non-religious terms (arguing essentially that there are no morally relevant differences between humans and sentient animals), it is common to find in publications or interviews that those advancing such ethics have had profound experiences of connection with the animal subjects they seek to protect. Such experiences can often be understood in religious terms, and sometimes are expressed in them. Tom Regan, for example, thinks that while most drawn to animal rights activism slowly grow into the needed awareness, others are "like Franciscans who just seem to be able to enter into an "I-thou" relationship intuitively," while others have a "road to Damascus" experience and are suddenly "infused with animal consciousness." Not a few animal activists recall that their beliefs really began suddenly, or intensified greatly, upon the occasion of eye-to-eye contact with an animal, where its full personhood seemed immediately obvious. Examples can be multiplied, including many in this encyclopedia, such as the biographies of CAPTAIN PAUL WATSON OR JANE GOODALL, or in Goodall's own reflections upon PRIMATE SPIRITUALITY.

Regan's own presentations can involve a kind of ritualizing. He often urges his audiences to choose a "totem animal," and make a commitment to its well-being. He thinks this is one way to facilitate an emotional reconnection to our earthly animal companions and to ensure long-term participation in the animal rights movement (Regan's views are from a 14 February 2003 interview with the author).

Such examples suggest that more research into dimensions of environmental ethics that are not at first glance religious might well prove fruitful. Clearly, environmental ethics that may not be *necessarily* religious often make sense to people either *because* of religious experiences or as the result of religious cultural influences they have had. The forester GIFFORD PINCHOT, for example, who articulated an anthropocentric and utilitarian rationale for forest protection, was significantly influenced by America's politically progressive social gospel movement. Nevertheless, few recognize the religion-related roots of his environmental ethics.

Environmental Ethics Debates from Earth Day 1980 and Beyond

The discussion thus far has identified antecedents to the decade in which environmental ethics became established as an important field for exploring moral and religious aspects of nature-human relations. It spotlighted some of the diverse influences that pushed these developments forward, including certain ecological sciences (especially population dynamics and ethnology), anthropology, and environmental economics (and below we will add environmental history). The analysis suggests that environmental ethics is necessarily interdisciplinary.

"Environmental ethics" emerged during a time of cultural upheaval affecting people with a wide variety of religious perceptions and backgrounds. Many religionists and scholars of traditions not singled out for special blame nevertheless began their own reappraisals during this period. These developments, which intersect with the present analysis, are described in RELIGIOUS STUDIES AND ENVIRONMENTAL CONCERN and are discussed in detail in the many tradition-focused entries analyzing contemporary developments.

This discussion concludes by summarizing important

religion-related issues that emerged in the environmental ethics field since *Environmental Ethics* began publishing in 1979. The major issues are related to (1) ecofeminism, (2) social philosophy, (3) the idea of wilderness and the social construction of nature, (4) the relationship between science and religious ethics and, (5) the relationship between environmental values and practices.

1) Ecofeminism

Two arguments made by some ecofeminists are particularly relevant to religious environmental ethics. One is the assertion that the oppression of women and nature are closely connected and that establishing proper human relationships among humans and other creatures requires an overturning of patriarchal civilization and the corresponding breach between men and women. The other is the claim that women are essentially closer to nature, more naturally able to appreciate its sacredness, and that this ability needs to be recognized and nurtured as an important resource in the struggle to reharmonize life on Earth. The latter claim is controversial among ecofeminists (some of whom reject any assertions that women are "essentially" one way or another) and unsympathetic to such a perspective. The vitality and diversity of these approaches are discussed in ECOFEMINISM and related entries.

2) Social philosophy

So much environmental ethics has been invested in debates regarding moral considerability (anthropocentrism vs. ecocentrism vs. animal rights), and over the relative merits of Western vs. Eastern philosophies and religions, that relatively less attention has been devoted to social philosophy. Indeed, many environmental ethicists seem unaware of a rich literature in political science that has struggled over the relative merits of different political arrangements. Environmental ethics, however, needs a strategy, and since the environmental diagnosis generally involves a claim that there is something wrong with society, the prescription must also be political. There is no avoiding social philosophy, therefore, which seeks to analyze, discover and defend the social arrangements and political systems that best cohere with morality. Green social philosophy adds environmental sustainability as an essential litmus test for any social philosophy; the effort to discern what sorts of social arrangements are most likely to ensure the flourishing of all species and ecosystem types is crucial to this investigation.

This is not to say social philosophy has not been discussed or debated. Two contributors to Herman Daly's steady-state economy books, Garrett Hardin and the political scientist William Ophuls, did so explicitly. Ophuls surmised that a benevolent green dictatorship was needed to arrest environmental degradation and ameliorate social conflicts exacerbated by environmental scarcity. In a

more democratic vein, Hardin urged mutually agreedupon coercion. These kinds of perspectives have made many nervous, even leading to charges that environmentalism can promote fascism or ecofascism.

Vermont-based communitarian anarchist Murray Bookchin pioneered one school of thought focusing on social philosophy. Known as "Social Ecology," this approach could be described briefly as communitarian anarchism. Social ecology resists hierarchy in general and capitalist market societies with special intensity. It offers as an alternative decentralized community self-rule, and voluntary federations of these participatory bodies, as the path to social justice and environmental sustainability.

Bookchin has been sharply critical of the nature mysticism he accurately perceived as animating much contemporary environmentalism, including that of radical environmentalists. But Bookchin's antipathy to such spirituality does not mean anarchism and social ecology cannot provide fertile ground for religious environmental ethics. As the work of the anarchist scholar John Clark has shown (in his books and in ANARCHISM and SOCIAL ECOLOGY in this encyclopedia), and certain direct action environmental groups such as the Donga Tribe, many anarchistic environmental ethics are sympathetic to if not grounded in nature spirituality. These forms of environmentalism generally view the animistic, pantheistic, and/or panentheistic spiritualities of indigenous peoples, or certain religions originating in Asia, as offering positive environmental values superior to those found in largescale, centralized, monotheistic societies. Indeed, especially in the mid-1980s in the United States and Europe, "green anarchism" has become one of the most rapidly growing popular fronts within RADICAL ENVIRONMENTALISM.

On the one hand, this is unsurprising, for to be "radical" an ethics must purport to get to the root of the problem and offer a solution that does more than address symptoms, but eradicates causes. This is unsurprising as well because much environmental ethics has criticized largescale industrial civilization, especially in the Occident, and because many of the earliest proponents of such critiques, such as GARY SNYDER and BIOREGIONALISM, a movement he helped inspire, trace their roots to anarchistic thinkers and movements and see affinities between such movements and indigenous cultures. On the other hand, this is ironic, for deep ecology, a form of radical environmentalism in many minds, has been criticized for refusing to be specific about which political systems are warranted, while other forms, such as EARTH FIRST! AND THE EARTH LIBERATION FRONT, are often viewed as one or more of the following - antidemocratic, violent, terrorist, Malthusian/anti-poor, racist, sexist, or in general fascistic - for putting concern for the whole biosphere and ecosystems over the well-being of particular groups or individuals.

Many environmental ethicists and activists, of course, simply take for granted the existing political systems and

institutions, viewing these as the structures within and through which they must work toward environmentally sustainable lifeways. With such a presupposition, there is little impetus to focus on social philosophy. Most of those in Western democratic countries, for example, who focus on environmental justice and environmental racism, do not seek to overturn existing political institutions, but rather, to hold them accountable to their own, stated ideals.

Since societal majorities do not think revolution desirable or feasible, this may help to explain why social philosophy, despite pressure from more radical groups, has not received more attention than it has. It may be, however, that if political scientists such as Thomas Homer-Dixon are correct in their projections of intensifying environmental deterioration, scarcity and concomitant social conflict, that increasing attention to social philosophy in environmental ethics will follow. This would seem to be a likely response as frustration intensifies regarding the inability or unwillingness of existing political institutions to respond to environmental crises. One possible piece of evidence in this regard is the draw that green anarchism seems to hold for many frustrated radical environmentalists. Another example of this kind of dynamic might emerge based on the assertions of those Muslim intellectuals who have begun to argue that ISLAMIC LAW provides the best ground upon which to establish environmental and human well-being.

There are many other possible futures, of course, including the repressive green government that in the 1960s Ophuls and others asserted would become necessary. This much is reasonably clear: to the extent that liberal democracies are viewed as tethered to anti-nature religions, religious environmental movements will offer competing social philosophies; moreover, as people struggle for power and over social arrangements in order to arrest ecological catastrophe, religion and politics will be intertwined.

3) The social construction of nature

In 1992 Neil Evernden published The Social Creation of Nature and with it debates about the social construction of reality spread rapidly into environmental disputes. In a nutshell, the resulting battle has been over whether, given the widespread impact of human activities, any "non-human" nature remains available to function as a base-line reference point for environmental conservation or restoration, and even whether there was ever any legitimacy to such endeavor.

The controversy intensified when the environmental historian William Cronon published "The Trouble with Wilderness; Or, Getting Back to the Wrong Nature" in 1995, including an abridged version in the New York Times Sunday Magazine. Cronon argued that the idea of a wilderness (defined as a place "untrammeled" by humans in America's 1964 Wilderness Act) where humans have no impact is wrong and ethically problematic. It is wrong because there *is* no such place, and it is ethically problematic because it distracts people from caring for the environment every place else, which on Cronon's reading, is actually everywhere. The sometimes vitriolic debate that followed was well captured in the first volume and issue of *Environmental History* (1996), which reprinted Cronon's article alongside critiques of it by conservation historians Samuel P. Hays and Michael P. Cohen. Soon after that, even broader discussions occurred in the *The Social Siege of Nature* (Soulé and Lease 1995) and *The Great New Wilderness Debate* (Callicott and Nelson 1998), as well as in a variety of environmental journals.

Cronon, assailed if not shunned by some in the environmental community whom he considered his allies and friends, offered both an unusual apology and a religious confession in his response to the uproar his article had precipitated:

One problem with "The Trouble with Wilderness," then, is that in reminding those who worship at the altar of wilderness that their God (like all deities) has a complicated and problematic past, I have perhaps not been as respectful of this religious tradition as I ought to have been. I mean this quite genuinely: to the extent that I have given offense by treading too carelessly on hallowed ground, I sincerely apologize. Had I been writing about Judaism or Christianity or Islam or Buddhism, or about the spiritual universes of native peoples in North America and elsewhere, I certainly would have been more careful to show my respect before entering the temple to investigate and comment on its architecture and origins. The reason I did not do so in this case is that the religion I was critiquing is my own, and I presumed a familiarity which readers who do not know me can be forgiven for doubting.

... I criticize wilderness because I recognize in this, my own religion, contradictions that threaten to undermine and defeat some of its own most cherished truths and moral imperatives. I have *not* argued that we should abandon the wild as a way of naming the sacred in nature; I have merely argued that we should not celebrate wilderness in such a way that we prevent ourselves from recognizing and taking responsibility for the sacred in our everyday lives and landscapes (Cronon 1996: 56, 57).

Cronon's pledge of his allegiance to the wilderness church in America was revealing in a number of respects. First, he recognized that only a member of this church could effectively speak to it. Second, wilderness religionists, like their counterparts in institutional religions, are capable of sanctioning their own and forcing recantation. Third, scholars play important roles in nature-related

religious production and ethical reflection, even those who rarely if ever write in a religious genre. And fourth, the perception that nature is sacred, especially the Earth's remaining wildlands, is resilient, even against constructive attack that would relativize such claims. Further discussion of the implications for both religions and secular environmental ethics regarding such issues is found in the entries on WILDERNESS RELIGION and THE SOCIAL CONSTRUCTION OF NATURE.

4) Science and religious environmental ethics

Conflicts between religious and scientific claims are as old as Galileo and science itself. The cosmogonies of scientists (perhaps especially evolutionary biologists) are always difficult to reconcile with those cosmogonies in which a divine being or beings are responsible for how the world came to be the way it is. Moreover, new scientific theories and understandings often create new cosmogonic conflicts, and this has been occurring in environmental ethics. While many encyclopedia entries explore religion, science and environmental ethics, in this overview it may be helpful to mention several religion-and-science-related issues that promise to preoccupy environmental ethics for a long time to come.

J. Baird Callicott, already discussed as an environmental ethics pioneer who found greater environmental potential in indigenous and Asian religions than occidental ones, went on to publish Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback (1994). In the main, he repeated his earlier perception, but in this case, he also described themes within Judaism and Christianity that could undergird positive ethical approaches to nonhuman nature. More importantly with regard to the present conundrum, however, was Callicott's proposed method to resolve conflicts between religion and science. When religious and scientific understandings conflict, he asserted, scientific beliefs should trump religious ones.

This is certainly one way to deal with the problem, privileging science over religion, but Callicott's claim proved controversial. In Worldviews: Environment, Nature, Culture (vol. 1, no. 2, 1997), a special issue devoted to Callicott's book, he was criticized along two major lines. First, he was faulted by some who argued that science is not sacred, but rather, it is an ideologically shaped cultural construction that often serves anti-human and anti-nature interests and should therefore not be privileged. A related critique was that Callicott was offering a hegemonic narrative that could not fully respect religious or cultural diversity. Secondly, he was faulted for failing to ground his ethics in a religious perception of the sacredness of life. Purely scientific narratives cannot provide an independent ground for ethics in general, let alone environmental ethics, according to this line of criticism (Taylor 1997b). The proper balance between scientific and religious understandings, of course, remains contested, and promises to provide indefinitely a lively debate.

Other scientific theories offered different challenges for religious environmental ethics. Ecologists and evolutionary biologists advanced theories that explained human moral sentiments, including ones establishing a basis for environmental concern, without reference to an explicit need for religion. For example, EDWARD O. WILSON (later with Stephen Kellert) propounded a theory he called BIOPHILIA, as well as another called sociobiology, that viewed our affective and moral connections to nature as adaptive behaviors explainable as evolutionary outcomes. David Sloan Wilson in Darwin's Cathedral: Evolution, Religion, and the Nature of Society (and in EVOLUTIONARY BIOLOGY, RELIGION, AND THE STEWARDSHIP OF NATURE), as well as anthropologists (see especially ECOLOGY AND RELIGION and ECOLOGICAL ANTHROPOLOGY and the cross-references provided in them) argued similarly that religion at its best is a mode through which human organisms successfully adapt to their environments.

These theorists are generally either agnostic or do not believe that the associated metaphysical beliefs of religions are true, even the ecologically adaptive ones. Such perspectives do not seem, therefore, to provide for anything other than a short-term rationale for religion, for it is valuable only to the extent that it promotes environmental sustainability. A question naturally follows, then: If there are compelling non-religious grounds for environmental ethics, then is religion really needed? And if religious metaphysical beliefs are incredible anyway, then does not intellectual integrity and a concern for veracity require that they be jettisoned, even if they might serve other interests?

Of course, such perspectives and reasoning would be troubling, to say the least, to religionists, and would make them suspicious of scientific perspectives they might otherwise embrace, as Anna Peterson points out in, Being Human: Ethics, Environment, and Our Place in the World (2001), a book-length study by a religious ethicist and feminist that wrestled seriously with these kind of evolutionary perspectives without dismissing them out of hand. That this was an exceptional effort underscores that a fully interdisciplinary discussion of such issues had barely begun by the early twenty-first century.

5) The relationship between environmental values and practices

Already mentioned was Yi-Fu Tuan's assertion of a bifurcation between environmental values and practices. To the extent that this is true much of, if not all of the ferment over "environmental ethics" will be largely or entirely a waste of time. For whatever else it is, environmental ethics is not only about understanding environmental values; it is also about promoting these in such a way that behaviors follow. What if achieving the former does not accomplish

the latter? This is one of the least explored areas of inquiry in environmental ethics, perhaps in part because philosophers and religious ethicists are usually not very well equipped to ask such questions.

J. Baird Callicott and Roger Ames did respond to Tuan's argument, asserting that "there is less evidence for Tuan's skepticism than for White's optimism about whether environmental ideas and values can exert a significant influence on environmental behavior" (1989: 287). Little empirical data was assembled in the rebuttal, however, and the studies that have been done on the relationships between environmental attitudes and behaviors do not suggest a close correlation. Glenda Wall, for example, found that environmental action is unlikely "regardless of [levels of environmental] concern, unless an environmental issue is linked to immediate personal concerns, or societal arrangements exist that help to reduce the costs of compliance and facilitate cooperative action" (Wall 1995: 465). She also summarized the growing literature on environmental attitudes and concluded as a result that the correlation between attitudes and behaviors, when present, is low. Similarly, in a broad study of the American Public published in Environmental Values in American Culture (1995) Willett Kempton and his team of researchers found a significant disconnection between environmental values and changes toward environmentally sustainable lifestyles or environmental protection actions. As the geographers James Proctor and Evan Barry show in social science on religion and nature, "empirical work in environment as religion is relatively scarce" and "Social science has done a tremendous service to the study of religion and environmental concern, but it has failed to deliver the conclusive chapter to the story." They are among those working on getting more definitive answers. Certainly what social science discovers about the various conditions under which environmental ethics, including religious ones, produce concrete environmental action should be and presumably will be important in the evolution of environmental ethics. Equally important, however, are qualitative and historical studies which are better at explaining why small groups and movements break out from the normal patterns and engage in dramatic environmental action, sometimes if not usually motivated by religious perceptions and ideals, as was seen, for example, in the numerous case studies scrutinized in Ecological Resistance Movements: The Global Emergence of Radical and Popular Environmentalism (Taylor 1995), which was itself informed by what has become known as "social movements theory."

Rather than assuming a close connection between religion, environmental values, and environmental behavior, any practical environmental ethics will have to go further than has been the case to this point to understand the connections between values and actions. Why are these connections apparently weak usually and in general, but in some cases apparently strong and directly motivating?

Conclusion

The preceding introduction to environmental ethics, although far from comprehensive, does provide a sense of the religious dimensions, tributaries, evolution, vitality, fecundity, and conundrums surrounding it. It also illustrates that the lines between non-religious and religious environmental ethics often blur as they play off of and influence one another. Cross-disciplinary and cross-cultural ethical and religious influence has become an important characteristic of the evolving field of environmental ethics.

Bron Taylor

Further Reading

An initial draft of an environmental ethics entry was written by Anna Peterson. Some words and ideas from it remain in this version.

- Adams, Carol J., ed. *Ecofeminism and the Sacred*. New York: Continuum, 1993.
- Birch, Charles and John B. Cobb, Jr. *The Liberation of Life:* From the Cell to the Community. Cambridge, MA: Cambridge University Press, 1981.
- Blackstone, William, ed. *Philosophy and Environmental Crisis*. Athens: University of Georgia Press, 1974.
- Bookchin, Murray. *The Ecology of Freedom*. Montreal/New York: Black Rose, 1991 (1982).
- Bookchin, Murray and Dave Foreman. Defending the Earth: A Dialogue Between Murray Bookchin and Dave Foreman. Boston: South End, 1991.
- Callicott, J. Baird. Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback. Berkeley: University of California Press, 1994.
- Callicott, J. Baird. In Defense of the Land Ethic: Essays in Environmental Philosophy. Albany: State University of New York Press, 1989.
- Callicott, J. Baird and Michael P. Nelson. American Indian Environmental Ethics: An Ojibwa Case Study. Englewood Cliffs, NJ: Prentice-Hall, 2003.
- Callicott, J. Baird and Michael P. Nelson. The Great New Wilderness Debate. Athens, GA: University of Georgia Press, 1998.
- Callicott, J. Baird and Roger T. Ames, eds. *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. Albany, NY: State University of New York Press, 1989.
- Callicott, Baird and Thomas W. Overholt. Clothed-in-Fur and Other Tales: An Introduction to an Ojibwa World View. Washington, D.C.: University Press of America, 1982.
- Carson, Rachel. Silent Spring. New York City: Houghton Mifflin, 1962.

- Clark, John. *The Anarchist Moment*. Montréal: Black Rose, 1984.
- Cobb, John. *Is It Too Late? A Theology of Ecology*. Beverly Hills, CA: Bruce, 1972.
- Cronon, William. "The Trouble with Wilderness: A Response." *Environmental History* 1:1 (1996), 47–57.
- Cronon, William, ed. "The Trouble with Wilderness; Or, Getting Back to the Wrong Nature." In *Uncommon Ground: Toward Reinventing Nature.* New York: Norton, 1995, 69–90; abridged version in *New York Times Sunday Magazine* (13 August 1995), 42–3.
- Daly, Herman E., ed. *Economics, Ecology, Ethics: Essays Toward a Steady-State Economy.* San Francisco: W.H. Freeman, 1980.
- Daly, Herman E., ed. *Toward a Steady-State Economy*. San Francisco: W.H. Freeman, 1973.
- Davis, Donald Edward. *Ecophilosophy: A Field Guide* to the Literature. San Pedro, CA: R. & E. Miles, 1989.
- Deloria, Vine, Jr. God Is Red: A Native View of Religion. Golden, CO: Fulcrum Publishing, 1994 (original edition, 1973).
- Devall, Bill and George Sessions. *Deep Ecology: Living As If Nature Mattered*. Salt Lake City, UT: Peregrine Smith, 1985.
- Dobson, Andrew. *Green Political Thought: An Introduction*. London: Unwin Hyman, 1990.
- Ehrlich, Paul. *The Population Bomb*. New York: Ballantine, 1968.
- Evernden, Neil. *The Social Creation of Nature*. Baltimore, MD: Johns Hopkins University Press, 1992.
- Hardin, Garrett. *Living Within Limits*. New York: Oxford University Press, 1993.
- Hardin, Garrett. "Living on a Lifeboat." *BioScience* 24:10 (1974), 561–8.
- Hardin, Garrett. "The Tragedy of the Commons." *Science* 162 (1968), 1243–8.
- Hargrove, Eugene C. Foundations of Environmental Ethics. Englewood Cliffs, NJ: Prentice Hall, 1989.
- Hargrove, Eugene, ed. *Religion and Environmental Crisis*. Athens, GA: University of Georgia Press, 1986.
- Homer-Dixon, Thomas. "Across the Threshold: Empirical Evidence on Environmental Scarcities as Causes of Violent Conflict." *International Security* 19:1 (1994), 5–40.
- Homer-Dixon, Thomas F. "On the Threshold: Environmental Change and Violent Conflict." *International Security* 16:2 (1991), 76–116.
- Homer-Dixon, Thomas and Jessica Blitt. *Ecoviolence: Links among Environment, Population, and Security.*Lanham. MD: Rowman & Littlefield. 1998.
- Hughes, J. Donald. "The Ancient Roots of Our Ecological Crisis." *National Parks and Conservation Magazine* (October 1975), 16–17.

- Huxley, Aldous. *The Perennial Philosophy*. New York: Harper & Row, 1945.
- Kempton, Willett, James S. Boster and Jennifer A. Hartley. Environmental Values in American Culture. Cambridge: MIT Press, 1995.
- Leopold, Aldo. A Sand County Almanac; with Essays on Conservation from Round River. San Francisco and New York: Sierra Club/Ballantine, 1970 (1949).
- Light, Andrew and Holmes, Rolston, III, eds. Environmental Ethics. Oxford: Blackwell, 2003.
- Meine, Curt. *Aldo Leopold: His Life and Work.* Madison University of Wisconsin Press, 1988.
- Merchant, Carolyn. *The Death of Nature: Women, Ecology* and the Scientific Revolution. San Francisco: Harper & Row, 1980.
- Miller, Perry. *Errand into the Wilderness*. Cambridge, MA: Belknap/Harvard University Press, 1956.
- Nabhan, Gary Paul. "Cultural Parallax in Viewing North American Habitats." In *Reinventing Nature? Responses to Postmodern Deconstruction*. Michael Soulé and Gary Lease, eds. Washington, D.C.: Island Press, 1995, 87–101.
- Naess, Arne. Ecology, Community and Lifestyle. David Rothenberg, tr. and ed. Cambridge: Cambridge University Press, 1989.
- Naess, Arne. "The Shallow and the Deep, Long-Range Ecology Movement: A Summary." *Inquiry* 16 (1973), 95–100
- Nash, Roderick Frazier. *The Rights of Nature: A History of Environmental Ethics*. Madison, WI: University of Wisconsin Press, 1989.
- Nash, Roderick Frazier. *Wilderness and the American Mind*. New Haven: Yale University Press, 1967 (2nd edn, 1973).
- Peterson, Anna L. *Being Human: Ethics, Environment, and Our Place in the World.* Berkeley, CA: University of California Press, 2001.
- Regan, Tom and Peter Singer, eds. *Animal Rights and Human Obligations*. Englewood Cliffs, NJ: Prentice Hall, 1976 (2nd edn, 1989).
- Rodman, John. "Four Forms of Ecological Consciousness." In *Ethics and the Environment*. Donald Scherer and Thomas Attig, eds. Englewood Cliffs, NJ: Prentice-Hall, 1983, 82–92.
- Rolston, Holmes, III. *Genes, Genesis and God: Values and Their Origins in Natural Human History.* Cambridge, MA: Cambridge University Press, 1999.
- Rolston, Holmes, III. *Environmental Ethics: Duties to and Values in the Natural World*. Philadelphia, PA: Temple University Press, 1988.
- Rolston, Holmes, III. *Environmental Ethics*. Buffalo, NY: Prometheus, 1986.
- Schumacher, Ernest Friedrich. Small is Beautiful: Economics as if People Mattered. New York: Harper & Row, 1973.

- Sessions, George. "Spinoza and Jeffers on Man and Nature." *Inquiry* 20:4 (1977), 481–528.
- Shrader-Frechette, Kristin. *Environmental Ethics*. Pacific Grove, CA: Boxwood, 1981.
- Schumacher, Ernest Friedrich. "Buddhist Economics." In Asia: A Handbook. Guy Wint, ed. New York: Praeger, 1966, 695–701; republished in Resurgence 1:11 (1968).
- Shepard, Paul. Coming Home to the Pleistocene. San Francisco: Island Press, 1998.
- Snyder, Gary. *Turtle Island*. New York: New Directions, 1969.
- Soulé, Michael. "The Social Siege of Nature." In Reinventing Nature? Responses to Postmodern Deconstruction.
 M. Soulé and G. Lease, eds. San Francisco: Island Press, 1995, 137–70.
- Stone, Christopher D. Should Trees Have Standing? Toward Legal Rights for Natural Objects. Los Altos, CA: William Kaufmann, 1974.
- Stone, Christopher D. "Should Trees Have Standing? Toward Legal Rights for Natural Objects." So. California Law Review 45 (Spring 1972), 450–501.
- Taylor, Bron. "Deep Ecology and Its Social Philosophy: A Critique." In *Beneath the Surface: Critical Essays on Deep Ecology*. Eric Katz, Andrew Light and David Rothenberg, eds. Cambridge, MA: MIT Press, 2000, 269–99.
- Taylor, Bron. "Review of Environmental Values in American Culture." The Ecologist 27:1 (Jan/Feb 1997a), 38–9.
- Taylor, Bron. "On Sacred or Secular Ground? Callicott and Environmental Ethics" (in special issue on *Earth's Insights*. Bron Taylor, ed.). Worldviews 1:2 (August 1997b), 99–112.
- Taylor, Bron, ed. Ecological Resistance Movements: The Global Emergence of Radical and Popular Environmentalism. Albany, NY: State University of New York Press, 1995.
- Taylor, Paul W. Respect for Nature: A Theory of Environmental Ethics. Princeton, NJ: Princeton University Press, 1986.
- Thompson, Paul, ed. *Issues in Evolutionary Ethics*. Albany, New York: State University of New York Press, 1995.
- Tuan, Yi Fu. "Discrepancies between Environmental Attitude and Behavior: Examples from Europe and China." *The Canadian Biographer* 12 (1968), 176–191.
- Wall, Glenda. "Barriers to Individual Environmental Action: The Influence of Attitudes and Social Experience." *Canadian Review of Sociology and Anthropology* 32:4 (1995), 465–89.
- Warren, Karen J. "Ecological Feminism (Special Issue)." *Hypatia* 6:1 (1991).
- Wilson, David Sloan. *Darwin's Cathedral: Evolution, Religion, and the Nature of Society.* Chicago & London: Chicago University Press, 2002.

Zimmerman, Michael E. Contesting Earth's Future: Radical Ecology and Postmodernity. Berkeley: University of California Press, 1994.

See also: Anarchism; Bioregionalism and the North American Bioregional Congress; Callicott, Baird; Carson, Rachel; Conservation Biology; Deep Ecology; Ecofascism; Ecofeminism; Ecosophy T; Leopold, Aldo; Mountaineering; Naess, Arne; Natural History as Natural Religion; Pinchot, Gifford; Radical Environmentalism; Religious Studies and Environmental Concern; Rolston III, Holmes; Shepard, Paul; Social Construction of Nature; Social Ecology; Spinoza, Baruch; Thoreau, Henry David; Traditional Ecological Knowledge; Virtues and Ecology in World Religions.

Environmental History – *See* Environmental Ethics.

Environmental Justice and Environmental Racism

Environmental justice refers to a broad range of issues that combine values of social justice with environmental values and practices. Environmental justice pertains when the cause of social injustices are mediated by environmental conditions, or the environmental burdens that threaten human health are bound by social injustices of marginalization, exploitation, discrimination, racism, sexism, and various forms of imperialism. Examples of environmental burdens include exposure to hazardous materials and toxic wastes, pollution, health hazards, workplace hazards, as well as the exploitation and loss of traditional environmental practices and depletion of local natural resources. Environmental benefits include a safe workplace, clean water and air, easy access to natural surroundings or parks, fair compensation for environmental burdens, and the preservation of traditional environmental practices connected to local natural resources. Concern for environmental justice grew as a grassroots movement of people of color and poor communities. Various populations including African-Americans, Hispanic Americans, Native Americans, and Americans of Asian and Pacific Island decent, as well as the urban, rural, and industrial poor populations - who make up their own local cultures - actively defended against the inequitable distribution of environmental burdens and the lack of participation in environmental decision making. The religious and spiritual importance can be addressed in four general arenas of environmental justice: distributing environmental burdens according to religious affiliation; organizing grassroots reactions to environmental threats from the religious community base; struggling to protect sacred spaces and places; and comprehending spirituality through values of environmental justice.

The first arena of religious environmental injustices pertains to the direct targeting of religious affiliation as a criterion for the location of environmental burdens. One of the most dramatic instances of religious targeting for environmental discrimination exists in the report authored by the Cerrell Associates, a public relations firm for the State of California. The now-infamous 1984 Cerrell Report argued that a community with reduced capacity for resistance, rather than geological and other scientific characteristics, would best determine the location of environmental burdens. In the report, characteristics such as high unemployment, high school or less education, and Catholic congregations would prove to be likely sites of least resistance. Identifying the faith of a community exposed a sanctioned religious discrimination in the distribution of environmental hurdens

The second arena of religious and spiritual significance for the environmental justice movement pertains to grassroots organizing around a religious community base. Communities in environmental justice cases often rely upon the moral center and congregational core of their religious organizations. A critical example is also one of the focal points in the movement's origins in the community of Afton in Warren County, North Carolina, where in 1981 it was chosen as the site for a toxic landfill. At the time, Afton had an 84 percent African-American population; Warren County had the highest percentage African-American population in North Carolina. In 1982, Dr. Charles E. Cobb, Director of the United Church of Christ's Commission for Racial Justice (UCC-CRJ), spoke out against this landfill, arguing it demonstrated how African-Americans and the poor are forced to assume heavier environmental burdens than white communities. Other important national organizations, such as the Southern Christian Leadership Conference and the Congressional Black Caucus also protested. This support inspired a campaign of nonviolent civil disobedience culminating in protest of activists and residents bodily blocking the trucks hauling toxin-laced soil, which led to over 500 arrests and drew national media attention. The Warren County protest represented one of the first public mobilizations against environmental racism. Although the protest was unsuccessful in stopping the toxic landfill site, the incident sparked the environmental justice movement, and two decades later the state closed the landfill and attempted to compensate the community for the long period of environmental injustices.

As its legacy, the Warren County incident introduced a new set of environmental obligations in the United States: the first of which was to decipher the extent of the disparate distribution of environmental burdens on communities of color and poor communities. For instance, the 1983 General Accounting Office study, *Siting of*