

Taylor, Bron, "Ecology and Religion: Ecology and Nature Religions,"
Encyclopedia of Religion, v. 4, 2nd ed., Lindsay Jones, ed., MacMillan
Reference, New York: 2005, pp. 2661-2668

Copyright © 2005
All Rights Reserved

Intra- and interreligious dialogue. Finally, science provides a powerful common denominator for this exciting and productive dialogue. In many conferences and workshops today around the world, organized by groups like the Center for Theology and the Natural Sciences (www.ctns.org), the Zygon Center for Science and Religion (www.zygoncenter.org), Metanexus Institute (www.metanexus.net), the John Templeton Foundation (www.templeton.org), and others, religious thinkers and practitioners from diverse religious and philosophical traditions—as well as diverse scientific disciplines—find common ground and profound challenges in confronting some of the greatest questions of our time.

Ecology. Once dubbed “the subversive science,” ecology also challenges the adequacy of reductionism and materialism, as it poses both new and enduring questions about the appropriate relationships between humans and the more-than-human world. By all accounts, we live at a unique moment in the natural history of our planet and the cultural evolution of our species, filled with challenge and promise. Whatever the future holds in store, the endeavors of science and religion, separately and together, will play an important part in the unfolding story.

BIBLIOGRAPHY

- Barbour, Ian. *Ethics in an Age of Technology: The Gifford Lectures 1989–1991*. Vol. 2. San Francisco, 1990.
- Barbour, Ian. *Religion and Science: Historical and Contemporary Issues*. New York, 1997.
- Berry, Thomas, and Brian Swimme. *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era*. San Francisco, 1992.
- Brooke, J. H. *Science and Religion: Some Historical Perspectives*. Cambridge, U.K., 1999.
- Daly, Herman, and John Cobb, Jr. *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future*. Boston, 1989.
- Dawkins, Richard. *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design*. New York, 1996.
- Dennett, Daniel. *Darwin's Dangerous Idea*. New York, 1995.
- Ellis, George F. R., and Nancey Murphy. *On the Moral Nature of the Universe: Theology, Cosmology, and Ethics*. Minneapolis, 1996.
- Gould, Stephen Jay. *Rocks of Ages: Science and Religion in the Fullness of Life*. New York, 2002.
- Grassie, William. “Biocultural Evolution in the 21st Century: The Evolutionary Role of Religion.” *Metanexus Online*. 2004.
- Harel, David. *Computers Ltd.: What They Really Can't Do*. New York, 2000.
- Haight, John F. *Science and Religion: From Conflict to Conversation*. Mahwah, N.J., 1995.
- Haight, John F. *God after Darwin: A Theology of Evolution*. Boulder, Colo., 2000.
- Haight, John F. *Evolution and Divine Providence*. Philadelphia, 2001.

Huchingson, James Edward. *Pandemonium Tremendum: Chaos and Mystery in the Life of God*. Boston, 2001.

John, Arthur Fabel, and Donald St. John. *Teilhard in the 21st Century: The Emerging Spirit of Earth*. Maryknoll, N.Y., 2003.

McKinley, Paul Shepard, and Daniel McKinley. *The Subversive Science: Essays toward an Ecology of Man*. Boston, 1969.

Post, Stephen G. *Unlimited Love: Altruism, Compassion, and Service*. Radnor, Pa., 2003.

Rolston, Holmes, III. *Environmental Ethics: Duties and Values in the Natural World*. Philadelphia, 1988.

Rolston, Holmes, III. *Genes, Genesis and God: Values and Their Origins in Natural and Human History*. New York, 1999.

Smith, Christian. *Moral, Believing Animals: Human Personhood and Culture*. New York, 2003.

Weinberg, Steven. *First Three Minutes*. New York, 1977.

WILLIAM GRASSIE (2005)

ECOLOGY AND RELIGION: ECOLOGY AND NATURE RELIGIONS

The term *nature religion* or the plural *nature religions* most commonly is used as an umbrella term for religious perceptions and practices that despite substantial diversity are characterized by a reverence for nature and consider nature sacred. Over the last few centuries a number of phrases have been used to capture the family resemblance, including *natural religion*, *nature worship*, *nature mysticism*, and *earth religion*, and words have been invented to reflect what is taken to be the universal essence of such religiosity, such as *paganism*, *animism*, and *pantheism*. The term *nature religion*, which began to be employed regularly within religious subcultures at about the time of the first Earth Day celebration in 1970, is used increasingly to represent and debate such “nature-as-sacred” religion in both popular and scholarly venues.

HISTORY OF THE IDEA OF NATURE RELIGION. Regardless of the terminology, the idea has a long history that in significant ways parallels the evolution of the academic study of religion. Indeed, the most common contemporary understanding of nature religion resembles the nature-venerating religiosity described in E. B. Tylor's *Primitive Culture* (1871), F. Max Müller's *Natural Religion* (1888), James G. Frazer's *The Worship of Nature* (1926), and Mircea Eliade's *Patterns in Comparative Religion* (1958). As Lawrence Sullivan concluded in a broad comparative review of nature-related religiosity in “Worship of Nature” in this encyclopedia, there are diverse examples of the worship of nature in the history of religion.

This background helps explain why the study of religion has often involved an interpretive effort to understand nature religion (understood broadly as nature-venerating or nature-as-sacred religion) as well as “the natural dimension of religion,” a term from Catherine Albanese's *Nature Religion in America* (1990), which urged scholars to examine not only

religions in which nature is explicitly considered divine or worshiped but also those in which it serves as an important symbolic resource. This and other changes in the field of religious studies—where scholars focus less on notions such as worship and more on the way religion is integrated into everyday life and the way it promotes identity formation and serves power and material interests—have recast discussions and understandings of nature religion among religionists and scholars alike.

Despite some changes as scholarly perspectives come into and fall out of fashion, there have been important continuities in both popular and scholarly contestations over nature religion. In those contestations the line between the observer and the practitioner often has been blurred; scholars frequently become as involved in nature-related religious production as do their overtly religious subjects.

The most common debate has been between those who consider nature religions to be religiously or politically primitive, regressive, or dangerous and those who laud them as spiritually perceptive or authentic and ecologically beneficent.

NATURE RELIGIONS AS PRIMITIVE, REGRESSIVE, OR DANGEROUS. Perspectives that view nature religions as primitive, regressive, or dangerous may have originated with and throughout recorded history have been influenced by the ancient antipathy between Abrahamic religions and the pagan and polytheistic religions of the ancient Middle East. Frazer noted, for example, that the Hebrew King Josiah initiated a death penalty for those who worshipped the sun in the seventh century BCE and that subsequent Hebrew figures, including the prophet Ezekiel, continued to battle the solar cult and other forms of what they considered nature-related idolatry. The orthodox streams of Abrahamic religion, especially Christianity and Islam, maintained their hostility and helped push nature religions and the peoples who embodied them to extinction or marginalization through conversion, assimilation, and sometimes violence. Those actions were legitimated in religious terms as promoting the spiritual well-being of both believers and prospective believers.

However, criticisms of nature-related religiosity have not been restricted to the religiously orthodox. The tendency to view nature religions as primitive (though not necessarily dangerous) intensified as Occidental (Western) culture placed increasing value on reason and as many thinkers became less religiously orthodox. The German philosopher Georg Wilhelm Friedrich Hegel (1770–1831), for example, advanced an idealistic philosophy that viewed nature religions as primitive for failing to perceive the divine spirit moving through the dialectical process of history.

More important for the historical study of religion in general and scholarly reflection on nature religion in particular was the influence of Charles Darwin's theory of evolution published in *On the Origin of Species* (1859). Generations of scholars came to view nature religions as primitive misper-

ceptions that natural forces are animated or alive. A friend of Darwin, John Lubbock, initiated that characterization in *The Origin of Civilization and the Primitive Condition of Man* (1889), citing Darwin's observation of the way dogs mistake inanimate objects for living beings. Lubbock asserted that religion had its origin in a similar misapprehension by primitive humans. Soon E. B. Tylor, who some consider the father of anthropology, would coin the term *animism* for that type of attribution of consciousness to inanimate objects and forces, asserting that that misapprehension was grounded in the dream states and sneezing of "primitive" or "savage" peoples. Not long afterward Max Müller, considered by some the father of the academic study of religion, traced the origin of Indo-European religion to religious metaphors and symbolism grounded in the natural environment, especially the sky and sun.

Both classical paganism and polytheistic religions, of course, involved the supplication to or veneration of celestial bodies and other natural entities and forces. According to Frazer, who was influenced by Tylor and Müller, belief and cultus related to the sun, the earth, and the dead were especially common in the worldwide emergence and ancient history of religion. Frazer approvingly quoted Müller's *Introduction to the Science of Religion* (1873): "The worship of the spirits of the departed is perhaps the most widely spread form of natural superstition all over the world" (Frazer, 1926, p. 18).

The idea of religion as involving nature-related beliefs and practices became widely influential, as did Frazer's "worship of nature" rubric to describe such religions:

[By] the worship of nature, I mean . . . the worship of natural phenomena conceived as animated, conscious, and endowed with both the power and the will to benefit or injure mankind. Conceived as such they are naturally objects of human awe and fear . . . to the mind of primitive man these natural phenomena assume the character of formidable and dangerous spirits whose anger it is his wish to avoid, and whose favour it is his interest to conciliate. To attain these desirable ends he resorts to the same means of conciliation which he employs towards human beings on whose goodwill he happens to be dependent; he proffers requests to them, and he makes them presents; in other words, he prays and sacrifices to them; in short, he worships them. Thus what we may call the worship of nature is based on the personification of natural phenomena. (Frazer, 1926, p. 17)

This early nature religiosity, Frazer thought, was replaced first by polytheism and then by monotheism as part of a "slow and gradual" process that was leading inexorably among civilized peoples to the "despiritualization of the universe" (Frazer, 1926, p. 9). Most scholarly observers during the nineteenth and early twentieth centuries seemed to agree that the nature spirituality characteristic of early peoples and the world's remaining "primitives" eventually would be supplanted by higher, monotheistic forms or no religion at all.

They assumed that although such religion might be regressive, it could not be considered dangerous or threatening, at least to cultural and material progress.

More recently, however, a chorus of voices has suggested that some forms of nature religions have been or can be pernicious or at least not as ecologically beneficent as they may seem upon cursory observation.

Drawing on analyses of dominance and power in the work of the philosopher Michel Foucault and the sociologist Pierre Bourdieu, in *Nature Religion in America* (1990) Catherine Albanese argued that nature religion, although it is commonly thought to promote social and ecological well-being, often masked an impulse to dominate nature as well as other people. Specifically, she analyzed how some religions of nature that were prominent during the period of the nation's invention justified the subjugation of both the natural world and the continent's aboriginal peoples. She also broadened the field of view in regard to religion by including in it her own definition of religious phenomena in which nature was "a compelling religious center . . . [and] culture broker" even if it was not considered sacred. The study of nature religion, including, broadly "the natural dimension of religion," Albanese concluded, can illuminate "persistent patterns in past and present American life" (Albanese, 1990, pp. 200, 13).

Albanese's analyses of nature religion caused consternation among many scholars and religionists who had a positive attitude toward nature religion. By broadening the subject and complicating the understanding of its consequences, Albanese's study precipitated significant shifts and a more complicated discussion of the nature variable in religion among practitioners of nature religions and scholars. A number of scholars concluded that there have been worldview affinities and historical connections among some nature religions (especially northern European paganism and various pagan revival movements) and racist worldviews as well as between nature religions and radical environmental movements, which some view as prone to violence.

Perhaps the most influential among those critics was Anna Bramwell, whose *Blood and Soil: Walter Darré and Hitler's Green Party* (1985) was followed by *Ecology in the 20th Century* (1989). Bramwell's main argument has been that the environmental movement, which can be traced roughly to the middle of the nineteenth century, represents an entirely new "nature worshipping" ideology in which "a pantheistic religious feeling is the norm" (Bramwell, 1989, p. 17, cf. p. 13). This religious ideology, which she called "Ecologism," can be fused to many ideologies, she acknowledged. However, she argued that it has had its strongest affinities and historical connections to racist programs (such as eugenics) and political movements (such as Nazism) that rejected Enlightenment rationality, often in favor of an agrarian ideal.

Bramwell's discussion of Earnest Haeckel (1834–1919), who coined the word *ecology* in *Generelle Morphologie* in

1866, is noteworthy. She was careful to point out that Haeckel did not promote Nazi ideology. He did, however, promote an ecologicistic spirituality that would be grafted to racist worldviews, according to Bramwell. Although Haeckel was atheistic and hostile to traditional monotheism, Bramwell believes he strongly advocated monistic pantheism, the belief that there is no supernatural realm and no spiritual substance distinct from matter but that nature in all its forms is divine. According to Bramwell, "Haeckel's most important legacy was his worship of Nature, the belief that man and nature were one, and that to damage one was to damage the other" (Bramwell, 1989, p. 53). To the extent that she was correct, the analysis of environmentalism as a new religious form would become important to religious studies.

Other books followed that explored connections between what some have called right-wing ecology and nature religion, including several by Nicholas Goodrick-Clarke that found occult and pagan roots in Nazism (Goodrick-Clarke, 1994, 1998, 2002). Richard Steigmann-Gall's *The Holy Reich: Nazi Conceptions of Christianity 1919–1945* (2003), however, argues largely to the contrary that Christianity, or a least an unorthodox strain of it, was far more important to Nazi ideology than were the few Nazis who were thinking romantically about the revival of a pre-Christian, Aryan nature religion that probably never existed.

Those studies of the Nazi period should be compared to fieldwork-based studies of contemporary movements. For example, the Swedish anthropologist Mattias Gardell, in *Gods of the Blood: The Pagan Revival and White Separatism* (2003), found significant affinities between contemporary nature religion, environmental ideals, and racist ideologies in Europe and North America. Another important work that took a fieldwork-based approach was edited by Jeffrey Kaplan and Heléne Lööv and titled *The Cultic Milieu* (2002), after an influential article by the sociologist Colin Campbell (1972). Several of its articles analyzed whether oppositional nature religions and environmental movements had developed or were likely to develop racist and violent characteristics. Although the conclusions varied with the specific subject matter, the book represented a turn toward field research in the effort to discern how nature religions are fused to political ideologies.

NATURE RELIGIONS AS SPIRITUALLY PERCEPTIVE, AUTHENTIC, AND ECOLOGICALLY BENEFICENT. Two historical works that bring the reader from ancient times nearly up to the present age of historical ideas, Clarence Glacken's *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (1967) and Donald Worster's *Nature's Economy: A History of Ecological Ideas* (1977), demonstrate both the marginalization of nature religion and its persistence as a religious force.

Early in *Traces on the Rhodian Shore*, for example, Glacken urges his readers not to "forget the echoes of the primordial Mediterranean world: its age-old veneration of Mother Earth" or its "astrological paganism" (Glacken,

1967, pp. 13, 15). This is an appropriate injunction for the study of nature religion. In Glacken's and other studies, including Worster's *Nature's Economy*, it becomes clear that whereas belief in specific earthly and celestial nature gods may have declined or disappeared, the perception that nature's places and forces are sacred, which gave rise to classical paganism, has not withered away. That perception has been resilient, at least episodically, threatening the hegemony of the monotheistic consensus and later challenging secular, science-based worldviews.

Writing at the dawn of the "age of reason," the Jewish philosopher and theologian Baruch (or Benedictus) Spinoza (1632–1677) and the French social theorist Jean-Jacques Rousseau (1712–1778), provide two influential examples of such a challenge.

Spinoza articulated a sophisticated monistic pantheism that has directly or indirectly influenced generations of subsequent pantheistic nature religionists. Those embracing or being influenced by such philosophy include some of the greatest theologians and philosophers of the modern period, including Friedrich Schleiermacher, Alfred North Whitehead, and later generations of "process" philosophers and theologians, who have been either pantheistic or panentheistic in worldview. Spinoza was also very influential on the early philosopher-architects of the deep ecology movement, such as the Norwegian Arne Naess and the American George Sessions, as well as on a number of recent thinkers who have explicitly promoted pantheistic religion, including Michael Levine (1994), Robert Corrington (1997), and Donald Crosby (2002).

At least as important was Rousseau's inspirational role in the so-called Romantic movement. Rousseau rejected revealed Abrahamic religions in favor of a deistic "natural religion" that, he believed, helps people discern God's existence in the order and harmony of nature. For Rousseau, natural religion and an epistemological turn to nature could provide a way to live free of the alienation, inequality, prejudice, and competitiveness of "civilization." His *Reveries of a Solitary Walker* (1782), which fused botanical observation with reminiscences of his ecstatic experiences in nature, presaged an explosion of religious nature and natural history writing. His greatest legacy, however, may not have been his role in promoting reverence for nature but his respect if not veneration for indigenous peoples who lived closer to nature and were thus socially and ecologically superior to "civilized" peoples. Rousseau's belief that such peoples were worthy of emulation makes his nature religion not only a worldview; his belief also enjoined a practice that demands direct experience in nature as well as (at least eventually) ethical obligations to nature itself. For Rousseau and his progeny these obligations oppose the dominant social forces in the West: hierarchal religions, centralized nation-states, and the quest to harness nature for human purposes.

Spinoza, and Rousseau more directly, offered a direct rejoinder to those who viewed nature religion as dangerous or

primitive. This viewpoint offered instead an antidote to the West's spiritual malaise, social violence, and economic inequality and the possibility of a harmonious future among the entire community of life.

ANTHROPOLOGY, THE STUDY OF RELIGION, AND NATURE RELIGION. Throughout the twentieth century and into the twenty-first anthropologists and scholars of religion often have continued to play the tunes common to nature religion. This is ironic since such scholars frequently have been directly or indirectly critical of such forms of religion. Even these critics, however, have, sometimes unwittingly, offered analyses that would be used to invent (or revitalize) nature religions.

Frazer provides a relevant example. Although he thought nature worship would disappear as scientific rationality spread, his wide-ranging descriptions of nature religiosity and his theory in *The Golden Bough* (1994) that much folk culture constitutes cultural survivals of a pagan past helped revitalize paganism or inspire new pagan religious production. Other scholars and religionists would offer historical interpretations of goddess or pagan societies that would be integrated into Neopaganism. Mircea Eliade's work, especially *Patterns in Comparative Religion* (1958) and *The Sacred and the Profane* (1959), functioned similarly as a resource. Unlike Frazer, however, Eliade apparently believed that the human experience of a sacred dimension of life represents not false consciousness but an authentic religious perception. A generation of religion scholars and popular writers followed his lead.

Equally important has been the work of the anthropologists who have developed several subfield specializations that have become known as ethnobotany, traditional ecological knowledge, and ecological anthropology or historical ecology. In various ways these disciplines have examined indigenous societies and sometimes peasant cultures as well in order to understand the relationships between ecosystems, livelihoods, and religions. The pioneers of these approaches, including the anthropologists Richard Schultes (1989), William Balée (1994), Roy Rappaport (1979, 1999), Gerardo Reichel-Dolmatoff (1976, 1996), Steven Lansing (1991), and Fikret Berkes (1999), concluded that indigenous societies and their spiritualities and religious practices and ethics, if not disrupted by outsiders, are usually environmentally sustainable and do not reduce biodiversity.

Many of these theorists have grounded their understanding of nature religion (and religion and nature) in evolutionary theory, wrestling with whether religious life can be seen as an evolutionary adaptation that promotes human survival. Roy Rappaport, one of the most influential theorists arguing along these lines, wrote, "Religious rituals [are] neither more or less than part of the behavioral repertoire employed by an aggregate of organisms in adjusting to its environment" (Rappaport, 1979, p. 28). Although this may sound like a scientifically reductionistic theory stating that religion can be explained as a mere epiphenomenon of evolu-

tion, Rappaport and many other anthropologists came to appreciate, if not have a personal affinity with, the nature religions of the indigenous people with whom they were well acquainted. The Harvard anthropologist Richard Schultes, who is widely considered the founder of ethnobotany and who studied indigenous cultures for decades in South America, concluded that the religion-related ecological knowledge of indigenous people was a precious treasury for humankind and that it was critically important to the conservation of biodiversity.

In addition to anthropologists, many scholars of religion have been involved in efforts to kindle a sense of reverence toward nature. In 1990 a group of scholars formed a Religion and Ecology Group within the American Academy of Religion. Its purpose was not only to understand the relationships between religions, cultures, and environments; many of its members sought to encourage religious environmental action. Some of its most active members became involved in the most comprehensive scholarly project to date in the emerging field of religion and ecology: a series of conferences titled "Religions of the World and Ecology" that were held between 1996 and 1998 and hosted by the Harvard Divinity School Center for the Study of World Religions (which at the time was directed by one of Eliade's most distinguished students, Lawrence Sullivan). Organized by two Bucknell University historians of religion, Mary Evelyn Tucker and John Grim, the conferences were followed by a ten-volume Harvard University Press book series, published between 1997 and 2004, which they edited. In the series introduction, Tucker and Grim indirectly confessed their belief in the earth's sacredness by lamenting "we no longer see the earth as sacred" and tracing environmental decline to this defective religious perception (Tucker and Grim, in Tucker and Williams, p. xvii). This statement seemed to also assume that earlier humans had a superior religious sensibility toward nature. The architects of the conference and the series held out the hope that a common religious ground for valuing nature could be found among all religions. They articulated their conviction that scholars could contribute to this effort by identifying and evaluating the "distinctive ecological attitudes, values, and practices of diverse religious traditions . . . that comprise . . . fertile ecological ground" (Tucker and Grim in Tucker and Williams, p. xxiii).

In the 1990s there were several conferences that focused explicitly on religions that consider nature to be sacred. Several important conferences were held in the United Kingdom. Graham Harvey and Charlotte Hardman organized the first one, "Paganism Today," which was held at the University of Newcastle upon Tyne in 1995. It and a number of edited books that followed represented, at least in part, an effort to blend rigorous scholarship with pagan identity, thereby legitimating that hybrid genre. Those books included a volume that took its title from the conference, Harvey and Hardman's *Paganism Today: Wiccans, Druids, the Goddess and Ancient Earth Traditions for the Twenty-First Century*

(1996). Another volume, *Researching Paganisms* (2004), which Harvey later coedited with Jenny Blain and Douglas Ezzy, argued in favor of the use of diverse methods in the study of paganism and emphasized the value of committed pagan scholarship. The second conference was held at Lancaster University in 1996 and was organized by members of that university's religious studies department. It was titled "Nature Religion Today," and as in the "Paganism Today" conference the year before, many of the organizers and presenters were self-consciously pagan in their religious identity. This conference included a discussion of the revival or invention of Wicca, druidic religion, and Celtic nature spirituality. Also like the first conference, this one led to a scholarly publication, *Nature Religion Today: Paganism in the Modern World* (Pearson, Roberts, Samuel, and Roberts, 1998). At both conferences as well as afterward the participants engaged in their own forms of ritualized nature veneration. A third conference, a year later in 1997 at University College Winchester, was titled "Re-Enchantment."

The preceding examples illustrate that like some anthropologists, some scholars of religion not only study the various manifestations of nature religion but are directly involved in such religious production, both in scholarly ways and by participating in ritual and ethical action. The ethical action is most often deployed in defense of ecosystems and the indigenous peoples who are considered wise stewards of them.

SCIENCE AND NATURE RELIGION. In addition to anthropologists and religion scholars, a growing number of scientists are becoming engaged in nature religion. Nature religionists, scholarly and not, have embraced them and find reinforcement in the statements of scientists who confess their feeling that life is miraculous or that the natural world is sacred. Such shared sentiment has also led to interesting collaborations that appear to represent new forms of nature religion, including cases of scientific narratives being considered sacred and either grafted onto already existing religions in creative ways or offered as stand-alone sacred stories for modern, scientifically informed people. An example of science-based nature reverence can be found in a statement issued in the early 1990s by a group of prominent scientists that included Stephen Jay Gould, Hans Bethe, Stephen Schneider, and Carl Sagan:

As scientists, many of us have had profound personal experiences of awe and reverence before the universe. We understand that what is regarded as sacred is more likely to be treated with care and respect. Our planetary home should be so regarded. Efforts to safeguard and cherish the environment should be infused with a vision of the sacred. (Suzuki and Knudtson, p. 227, cf. p. 167)

Some of these scientists had been influenced significantly by the former passionate priest and world religions scholar Thomas Berry (1914–), whose thinking was, in turn, influenced by Teilhard de Chardin, Alfred North Whitehead, and Mircea Eliade. Beginning in the late 1980s, Berry, sometimes

collaborating with the physicist Brian Swimme, argued that the universe story—science-based cosmological and evolutionary narratives—should be considered sacred stories and inspire reverence for nature and environmental action. For scientifically inclined individuals who find implausible the supernaturalism that accompanies most forms of religion, Berry also articulated a spirituality that coheres with the feelings of awe and reverence that sometimes emerge from science itself. Published examples include Ursula Goodenough's *The Sacred Depths of Nature* (1998), the science writer Connie Barlow's *Green Space, Green Time: The Way of Science* (1997), and Loyal Rue's *Everybody's Story: Wising up to the Epic of Evolution* (2000).

In addition, some scientific theories were appropriated by nature religionists as evidence for their own perception of nature's sacredness. The atmospheric scientist James Lovelock articulated a scientific theory in *Gaia: A New Look at Life on Earth* (1979), in which he argued that the biosphere operates like a self-regulating organism, maintaining the necessary conditions of life. Although Lovelock borrowed the Gaia theory's name from the ancient Greek god of the earth, he regarded it as a scientific theory, not a religious treatise. He was, therefore, shocked at how nature religionists seized on it as evidence for their pantheistic, nature-venerating worldviews. But he eventually embraced the spiritual interpretation of his theory, concluding in 2001 that we must protect Gaia because "We are a part of it . . . and should revere it again."

NATURE, RELIGION, AND THE FUTURE. This discussion of nature religion illustrates some of the diverse ways in which the phenomenon has been understood. It has said little, however, about the invention or revitalization of paganism in the twentieth century and paid little attention to environmental and New Age groups, which often fit well into the nature religion construct.

Although nature religions usually consider nature to be sacred, they do not always agree about its location or where it manifests itself most powerfully. There are differing perceptions in nature religions of whether the sacred is primarily earthly (manifested in specific places such as caves, mountains, and water bodies), biotic (perceived in the earth's flora and fauna), or cosmic (reflected in a platonic way in earthly life but located beyond the biosphere).

Despite substantial differences, some convergence may be under way. Participants in contemporary nature religion often speak of their sense of "connection" and "belonging" to the earth, its living systems, or the universe as a whole. Such rhetoric is so widespread that it has become possible to define nature religions as *spiritualities of connection*. This would echo the etymological root of the word *religion*, which has to do with belonging or being bound to forces greater than the self. Such spiritualities usually are accompanied by kinship feelings and ethical obligations toward nonhuman life. They appear to be likely to play an important role in the human religious future, perhaps in part because such religion

can be apprehended through the senses (sometimes magnified through scientific methods and technologies).

It is all but certain that nature religion will continue to evolve and encounter hostility. Nature religionists undoubtedly will continue to frame such opposition as the repressive tendency of religious zealots who seek to desacralize and desecrate the living natural world.

Scholarly theories regarding the evolutionary or "natural" roots of religion and analyses of the ubiquity of nature as a religious resource for veneration, worship, and symbolic thought suggest that religion will remain deeply intertwined with nature. The intersection of religion and nature therefore will continue to provide fertile ground for both nature religion and the scholarly analysis of it.

SEE ALSO Animals; Animism and Animatism; Earth; Earth First!; Nature; Neopaganism; Paganism, Anglo-Saxon; Pantheism and Panentheism; Sacred and the Profane, The; Vegetation.

BIBLIOGRAPHY

Many of the sources provided below are introduced in the entry and require no additional annotation. Other cited works include those of Stephen Fox and Michael P. Cohen, who illustrate the prevalence of nature spirituality in the American environmental movement. Examples of deep ecology, an environmental philosophy that often is associated with radical environmentalism and can be understood as a nature religion, can be found in the cited works of Arne Naess, Paul Shepard, Gary Snyder, George Sessions, Bill Devall, John Seed, and Joanna Macy. Naess, Shepard, and Snyder are the most important intellectual architects of the movement, and Macy and Seed are its most influential evangelists and ritualizers. Michael Zimmerman is a philosopher sympathetic to deep ecology, radical environmentalism, and other forms of nature religion who has been troubled by the charges of right-wing connections to it, and his book is a reflection on that issue. The works of Bron Taylor, Sarah Pike, Michael York, and Catherine Albanese explore nature religion and its intersections with environmental movements, New Age spirituality, paganism, and other forms of countercultural spirituality. The novels by James Redfield about a "Celestine prophecy" provide a good example of the way in which environmental themes can be fused to New Age religion. Colin Campbell's theory of the Cultic Milieu, recently illustrated in the volume by Kaplan and Löow, is helpful for understanding the processes by which such cross-fertilization occurs. The *Encyclopedia of Religion and Nature*, edited by Taylor, provides diverse examples of nature religion from around the world, and some of its entries that are especially relevant to nature religion are included below.

- Albanese, Catherine L. *Nature Religion in America: From the Algonkian Indians to the New Age*. Chicago, 1990.
- Balée, William. *Footprints of the Forest: Ka'Apor Ethnobotany—The Historical Ecology of Plant Utilization by an Amazonian People*. New York, 1994.
- Berkes, Fikret. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. Philadelphia, 1999.
- Blain, Jenny, Douglas Ezzy, and Graham Harvey. *Researching Paganisms*. Lanham, Md., 2004.

- Bramwell, Anna. *Blood and Soil: Walter Darré and Hitler's Green Party*. Buckinghamshire, U.K., 1985.
- Bramwell, Anna. *Ecology in the 20th Century: A History*. New Haven, Conn., 1989.
- Campbell, Colin. "The Cult, the Cultic Milieu and Secularization." *A Sociological Yearbook of Religion in Britain* 5 (1972): 119–136.
- Capra, Fritjof, and David Steindl-Rast. *Belonging to the Universe: Explorations on the Frontiers of Science and Spirituality*. San Francisco, 1991.
- Cauvin, Jacques. *The Birth of the Gods and the Origins of Agriculture*. Translated by Trevor Watkins. Cambridge, U.K., 2000.
- Cohen, Michael P. *The Pathless Way: John Muir and American Wilderness*. Madison, Wisc., 1984.
- Campolo, Anthony. *How to Rescue the Earth Without Worshipping Nature*. Nashville, Tenn., 1992.
- Corrington, Robert S. *Nature's Religion*. Lanham, Md., 1997.
- Crosby, Donald A. *A Religion of Nature*. Albany, N.Y., 2002.
- Devall, Bill, and George Sessions. *Deep Ecology: Living as If Nature Mattered*. Salt Lake City, Utah, 1985.
- Eliade, Mircea. *Patterns in Comparative Religion*. New York, 1958.
- Eliade, Mircea. *The Sacred and the Profane: The Nature of Religion*. New York, 1959.
- Fox, Stephen. *The American Conservation Movement: John Muir and His Legacy*. Madison, Wisc., 1981.
- Frazer, Sir James George. *The Golden Bough: A History of Myth and Religion*. London, 1994.
- Frazer, Sir James George. *The Worship of Nature*. London, 1926.
- Gardell, Mattias. *Gods of the Blood: The Pagan Revival and White Separatism*. Durham, N.C., 2003.
- Glacken, Clarence. *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*. Berkeley, Calif., 1967.
- Goodenough, Ursula. *The Sacred Depths of Nature*. New York, 1998.
- Goodrick-Clarke, Nicholas. *The Occult Roots of Nazism: Secret Aryan Cults and Their Influence on Nazi Ideology*. New York, 1994.
- Goodrick-Clarke, Nicholas. *Hitler's Priestess: Savitri Devi, the Hindu-Aryan Myth and Neo-Nazism*. New York, 1998.
- Goodrick-Clarke, Nicholas. *Black Sun: Aryan Cults, Esoteric Nazism and the Politics of Identity*. New York and London, 2002.
- Guthrie, Stewart. *Faces in the Clouds: A New Theory of Religion*. New York and Oxford, 1993.
- Haeckel, Ernest. *God-Nature*. London, 1906.
- Haeckel, Ernest. *The Riddle of the Universe*. London, 1900.
- Haeckel, Ernest. *The Wonders of Life*. London, 1905.
- Haeckel, Ernest. *Monism as Connecting Religion and Science: The Confession of Faith of a Man of Science*. London and Edinburgh, 1984.
- Harvey, Graham. *Contemporary Paganism: Listening People, Speaking Earth*. New York, 1997.
- Harvey, Graham, and Charlotte Hardman, eds. *Paganism Today: Wiccans, Druids, the Goddess and Ancient Earth Traditions for the Twenty-First Century*. New York, 1996.
- Hutton, Ronald. *The Triumph of the Moon: A History of Modern Pagan Witchcraft*. Cambridge, Mass., 2000.
- Kaplan, Jeffrey, and Heléne Lööw, eds. *The Cultic Milieu: Oppositional Subcultures in an Age of Globalization*. Lanham, Md. 2002. See especially Bron Taylor, "Diggers, Wolves, Ents, Elves and Expanding Universes: Bricolage, Religion, and Violence from Earth First! and the Earth Liberation Front to the Antiglobalization Resistance" (pp. 26–74); Jeff Kaplan, "The Postwar Paths of Occult National Socialism" (pp. 225–264); and Heléne Lööw, "The Idea of Purity: The Swedish Racist Counterculture, Animal Rights, and Environmental Protection" (pp. 193–210).
- Kellert, Stephen R. *Kinship to Mastery: Biophilia in Human Evolution and Development*. Washington, D.C., 1997.
- Lansing, J. Stephen. *Priests and Programmers: Technologies of Power in the Engineered Landscape of Bali*. Princeton, N.J., 1991.
- Levine, Michael. *Pantheism: A Non-Theistic Concept of Divinity*. New York and London, 1994.
- Lubbock, John. *The Origin of Civilization and the Primitive Condition of Man*. London, 1889 (originally published in 1870).
- Macy, Joanna. *Coming Back to Life: Practices to Reconnect Our Lives, Our World*. Blain, Wash., 1998.
- Messer, Ellen, and Michael Lambek. *Ecology and the Sacred: Engaging the Anthropology of Roy A. Rappaport*. Ann Arbor, Mich., 2001.
- Müller, F. Max. *Introduction to the Science of Religion*. London, 1873.
- Müller, F. Max. *Natural Religion*. London, 1888.
- Naess, Arne. *Ecology, Community and Lifestyle*. Edited and translated by David Rothenberg. Cambridge, U.K., 1989.
- Noll, Richard. *The Aryan Christ: The Secret Life of Carl Jung*. New York, 1997. A work that buttresses allegations that nature religion, in this case that of Carl Jung, can contribute to fascist ideologies.
- Pearson, Joanne, Richard H. Roberts, Geoffrey Samuel, and Richard Roberts, eds. *Nature Religion Today: Paganism in the Modern World*. Edinburgh, 1998.
- Pike, Sarah. *New Age and Neopagan Religions in America*. New York, 2004.
- Plotkin, Mark. *Tales of a Shaman's Apprentice*. New York, 1993.
- Rappaport, Roy A. *Ecology, Meaning and Religion*. Richmond, Calif., 1979.
- Rappaport, Roy A. *Ritual and Religion in the Making of Humanity*. Cambridge, Mass., 1999.
- Redfield, James. *The Celestine Prophecy*. New York, 1993.
- Reichel-Dolmatoff, Gerardo. "Cosmology As Ecological Analysis: A View from the Rainforest." *Man* 2, no. 3 (1976): 307–318.
- Reichel-Dolmatoff, Gerardo. *The Forest Within: The Worldview of the Tukano Amazonian Indians*. Totnes, U.K., 1996.
- Schultes, Richard Evans. "Reasons for Ethnobotanical Conservation." In *Traditional Ecological Knowledge: A Collection of Essays*, edited by R. E. Johannes. Geneva, 1989.

- Schultes, Richard Evans, and Siri Reis. *Ethnobotany: Evolution of a Discipline*. Portland, Ore., 1995.
- Seed, John, Joanna Macy, Pat Fleming, and Arne Naess. *Thinking Like a Mountain: Towards a Council of All Beings*. Philadelphia, 1988.
- Sessions, George, ed. *Deep Ecology for the 21st Century*. Boston, 1995.
- Shepard, Paul. *The Tender Carnivore and the Sacred Game*. New York, 1973.
- Shepard, Paul. *Coming Home to the Pleistocene*. San Francisco, 1998.
- Snyder, Gary. *Turtle Island*. New York, 1969.
- Snyder, Gary. *The Practice of the Wild*. San Francisco, 1990.
- Spinoza, Benedictus. *Tractatus Theologico-Politicus*. Leiden, 1991.
- Steigmann-Gall, Richard. *The Holy Reich: Nazi Conceptions of Christianity 1919–1945*. Cambridge, Mass., 2003.
- Suzuki, David, and Peter Knudtson. *Wisdom of the Elders: Honoring Sacred Native Visions of Nature*. New York, 1992.
- Swimme, Brian, and Thomas Berry. *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era: A Celebration of the Unfolding of the Cosmos*. San Francisco, 1992.
- Taylor, Bron. "Resacralizing Earth: Pagan Environmentalism and the Restoration of Turtle Island" In *American Sacred Space*, edited by David Chidester and Edward T. Linenthal, pp. 97–151. Bloomington, Ind., 1995.
- Taylor, Bron. "Earth and Nature-Based Spirituality (Part I): From Deep Ecology to Radical Environmentalism." *Religion* 31, no. 2 (2001): 175–193.
- Taylor, Bron. "Earth and Nature-Based Spirituality (Part II): From Deep Ecology to Scientific Paganism." *Religion* 31, no. 3 (2001): 225–245.
- Taylor, Bron. "A Green Future for Religion?" *Futures Journal* 36, no. 9 (2004).
- Taylor, Bron, ed. *The Encyclopedia of Religion and Nature*, London and New York, 2005. See especially Animism; Anthropology as a Source of Nature Religion; Berry, Thomas; Biodiversity and Religion; Biophilia; Conservation Biology; Council of All Beings; Deep Ecology; Earth Charter; Earth First! and the Earth Liberation Front; Ecology and Religion; Environmental Ethics; Epic of Evolution; Fascism; Gaia; Gaian Pilgrimage; Leopold, Aldo; Naess, Arne; Natural History as Natural Religion; Nature Religion; Paganism; Pantheism; Radical Environmentalism; Religious Naturalism; Religious Environmentalist Paradigm; Religious Studies and Environmental Concern; Spinoza, Baruch; Thoreau, Henry David; Traditional Ecological Knowledge; Wilson, Edward O.
- Taylor, Sarah McFarland. *Green Sisters: Catholic Nuns Answering the Call of the Earth*. Cambridge, Mass., 2004.
- Tylor, Sir Edward Burnett. *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art and Custom*. London, 1871.
- Wilson, Edward Osborne. *Biophilia*. Cambridge, Mass., 1984.
- Wilson, Edward Osborne. *Consilience: The Unity of Knowledge*. New York, 1998. These are among Wilson's many works that have had the most influence on contemporary nature-religion discussions.
- Worster, Donald. *Nature's Economy: A History of Ecological Ideas*. Cambridge, Mass., 1977; revised, 1994.
- York, Michael. *The Emerging Network: A Sociology of the New Age and Neo-Pagan Movements*. Lanham, Md., 1995.
- York, Michael. *Pagan Theology*. New York, 2004.
- Zimmerman, Michael E. *Contesting Earth's Future: Radical Ecology and Postmodernity*. Berkeley, Calif., 1994.

BRON TAYLOR (2005)

ECONOMICS AND RELIGION. [To explore the relations between religion and economics, this article takes as its starting place the beginnings of modern economic theory and examines the perspectives on those relations that have developed within the sociology of religion since the late nineteenth century.]

A sustained scholarly interest in the relationship between religion and economics crystallized in a number of Western societies in the early years of the twentieth century. Since that time it has been a topic of considerable research and debate.

DEVELOPMENT OF ECONOMIC ANALYSIS. The discussion of the relationship between economics and religion is plagued by a general problem having to do with how appropriate it is to speak of separate domains—such as the economic or the religious—in premodern, especially primal, societies, where such distinctions were or are not part of everyday life. Indeed, only during the last two hundred years or so have people become accustomed to speak of the *economy*, even though the term was used as long ago as the fourth century BCE by Aristotle to designate the relationships among members of the domestic household. Aristotle was particularly concerned to show, in the face of the commercial expansion of his time, that human wants and needs are not unlimited and that useful things are not, by their nature, scarce. In spite of the great expansion of trade, profit making, and eventually, price setting by market forces and the appearance of large-scale manufacture during the centuries following Aristotle, it was not until as recently as the end of the eighteenth century that "the economy" became fully thematized (and then only in the Western world) as a relatively autonomous realm of human life. That period saw the beginnings in Great Britain of the discipline that came to be called political economy and the first use of the term *économiste* by French intellectuals. The perception of the economy as a relatively autonomous realm (and, in the view of many of those who specialized in analyzing it, the most fundamental human realm) went hand-in-hand with the view that religion was of rapidly diminishing significance.

PRIMACY OF ECONOMIC ASPECT. The prevailing view among social scientists and historians has been that the economy, during the long period from ancient Greek civilization to the nineteenth century, became disembedded from the societal fabric, especially in the Western world. By the late nineteenth century, therefore, the economy was seen as