Introduction

Introducing Religion and Nature

What are the relationships between human beings, their diverse religions, and the Earth's living systems?

The question animating this encyclopedia can be simply put. The answers to it, however, are difficult and complex, intertwined with and complicated by a host of cultural, environmental, and religious variables. This encyclopedia represents an effort to explore this question in a way that illuminates these relationships without oversimplifying the dynamic relations between human beings, their religions, and the natural environment.

This introduction and the "readers guide" that follows it provide a map to this terrain. The introduction explains the questions that gave rise to this project, describes the approach taken and rationale for editorial judgments made along the way, spotlights some of the volume's most important entries, and speculates about the future of nature-related religion as well as the increasingly inter-disciplinary scholarly field that has emerged to track it. The "Readers Guide," located after this introduction, should not be missed, for it describes the different types of entries included in the encyclopedia and explains how to use it.

Religion and Nature Conundrums

In the second half of the twentieth century, as environmental alarm grew and intensified, so did concern about the possible role of religion in nature. Much of this concern has involved a hope for a "greening" of religion; in other words, it envisioned religion promoting environmentally responsible behavior. So fervent has this preoccupation become that, since the early 1970s, "green" has become a synonym for "environmental" in its original adjectival form, and it has now also mutated into verb and adverb, regularly deployed to signal environmentally protective action. Indeed, the term "green" will be used throughout these volumes to convey environmental concern, awareness, or action.

Curiosity regarding the relationships between human culture, religion, and the wider natural world, however, goes far beyond the question as to whether religions are naturally green, turning green, or herbicidal. The kinds of questions that arise from the nexus of religion and nature are many and diverse – but they have not always been in

scholarly focus, a fact that this encyclopedia seeks to remedy.

In the *Encyclopedia of Religion and Nature* (ERN) we set forth a dozen analytical categories, both while pursuing entries and while guiding contributors, hoping this would arouse discussion and debate in a number of areas that had received too little critical scrutiny. Additionally, the aim was to foster a more nuanced analysis in areas that had already drawn significant attention. We asked prospective writers to illuminate the following questions, grouped into a dozen analytical categories, to the fullest extent possible, given their relevance to the specific subject matter in focus:

- 1. How have ecosystems shaped human consciousness, behavior, and history, in general, and *religions* and their environment-related behaviors in particular, if they have?
- 2. What are the perceptions and beliefs of the world's religions toward the Earth's living systems in general and toward individual organisms in particular? In what ways have these traditions promoted ecologically beneficent or destructive lifeways? Are some religions intrinsically greener than others?
- 3. Are religions being transformed in the face of growing environmental concern, and if so, how? To what extent do expressed beliefs about duties toward nature cohere with behaviors toward it?
- 4. Do various religions have internal and external resources for, or barriers to, the kind of transformations that are widely considered necessary if humans are to achieve ecologically sustainable societies? If they can be, what are the effective ways in which greener religions have been and can be encouraged?
- 5. How are various and different religions, from old and established to new and emergent, influencing one another as people struggle to address and to make sense of their environmental predicaments? How are contemporary environmental understandings influencing religion? Are ecological understandings more influential on religions than the other way around?
- 6. To what extent (if at all) can contemporary environmental movements be considered religious? If they are religious, should we consider all of the resource-related conflicts in which they are engaged to be religious struggles?
- 7. What are the reciprocal influences between nature and religion in interhuman conflict and violence? Does natural resource scarcity play a significant role

in this regard, intensifying conflicts and the likelihood of religion-and-nature-related violence? Yet more specifically, what are the reciprocal influences between apocalyptic or millenarian religions, and environmental sciences, which are producing increasingly alarming prognostications?

- 8. What are the relationships among religious ideas, breeding, and population growth and decline? How is this related to other questions listed here?
- 9. How are the sciences integrated into contemporary nature-related religion and ethics? Is it possible for religions to consecrate scientific narratives, such as evolution, in such a way as to invent religions with *no* supernatural dimension? If so, can we still call such worldviews and perceptions religious?
- 10. With regard to nature religions, here defined as religions that consider nature to be sacred: What are the "spiritual epistemologies," the perceptions in nature, the sources and cultural constructions, which have shaped them? And how and to what extent are political ideologies integrated into the nature-religion stew?
- 11. What are the impacts of "globalization" on nature-related religion and behavior; specifically, what are the processes, pathways, and limits to cross-fertilization within and among different religions and regions in our increasingly interconnected world? Are there any patterns or tendencies emerging globally in contemporary Earth-related spirituality and religion?
- 12. If, indeed, there are patterns and tendencies, how are the people involved in nature-related religion and spiritualities reshaping not only the religious terrain, but also the political and ecological landscape around the world?

Readers interested in such questions should find much of interest in these volumes.

The remainder of this introduction explores the emerging fields related to religion and nature that have variously been dubbed "religion and ecology," "ecological anthropology," "cultural ecology," and "environmental history." The discussion of these fields and subfields includes several dimensions:

- It provides and examines working definitions for terms that were critical to the framing of the project, including "religion," "nature," and "nature religion."
- 2. It explores the genesis and evolution of interest in "religion and nature," both among religionists and scholars. This section focuses first on the American Conservation Movement, and secondly on seventeenth-century Europe and on developments up to the Environmental Age (shorthand in this introduction for the age of environmental awareness that emerged

- forcefully in the 1960s). It then spotlights the religion and nature debates during this period, including developments among "world religions," "nature religions," and in theories purporting to explain the natural origins and persistence of religion.
- A concluding section overviews some of the ways in which this encyclopedia begins to address the future of religion, nature, and the understandings of these relationships.

Defining Religion, Nature, and Nature Religion

From the beginning of this project, the objective has been to encourage robust debate and to explore the widest possible range of phenomena related to the relationships between religion, nature, and culture. This leads inevitably to the very beginnings of the scholarly study of religion, for long and lively debates regarding what constitutes religion have often been deeply connected to discussions about the role nature plays in it. Because even this definitional terrain has been contested, in constructing this encyclopedia the aim has been to avoid excluding by definitional fiat some of the very phenomena and perspectives that are under discussion. Despite this reluctance to impose a definition of religion on the overall endeavor, however, any study has to be guided by a consistent set of standards and has to be clear about its subject matter. This terminological section, therefore, explains the operational definition of religion that has informed the construction of these volumes. It also clarifies other terms critical for this study, such as "spirituality," "nature," and "nature religion."

One reason for this terminological interlude is that in contemporary parlance, people increasingly replace the term "religion" with "spirituality" when trying to express what moves them most deeply. Nowhere is the preference for the term "spirituality" over "religion" more prevalent than among those engaged in nature-based or nature-focused religion.

A number of scholars have noted and sought to understand the distinction between the terms spirituality and religion, and the preference many contemporary people express for the former over the latter. In one seminal study, the sociologist of religion Wade Clark Roof found that for many, "to be religious conveys an institutional connotation [while] to be spiritual . . . is more personal and empowering and has to do with the deepest motivations in life" (Roof 1993: 76–7). A number of subsequent empirical studies supported Roof's analysis and found ample evidence that many people understood the distinction as Roof had described it and considered themselves spiritual but not religious. In survey research conducted by Daniel Helminiak, for example, 19 percent of respondents called

themselves spiritual. For these people, religion "implies a social and political organization with structures, rules, officials, [and] dues [while] spirituality refers only to the sense of the transcendent, which organized religions carry and are supposed to foster" (Helminiak 1996: 33). Another study similarly found that "religiousness is increasingly characterized as 'narrow and institutional,' and spirituality ... as 'personal and subjective'" (Zinnbauer et al. 1997: 563).

The distinction between religion as "organized" and "institutional" and spirituality as involving one's deepest moral values and most profound life experiences is probably the most commonly understood difference between the two terms. But there are additional idea clusters that often are more closely associated with spirituality than religion; and these ideas tend to be closely connected with nature and a sense of its value and sacredness.

Given its commonplace connection with environmental concerns, when considering nature-related religion, it is important to include what some people call spirituality. This is not to say that scholars and other observers must maintain the same understanding of the distinction between spirituality and religion that has emerged in popular consciousness. Most of those who consider themselves to be spiritual can be considered religious by an external observer, for they generally believe that life has meaning and that there is a sacred dimension to the universe.

Some argue that religion requires belief in divine beings and supernatural realities, however, and insist that even profoundly meaningful experiences and strong moral commitments cannot count as religion in the absence of such beliefs. An entry on the "Anthropology of Religion" by Jonathan Z. Smith and William Scott Green in The HarperCollins Dictionary of Religion asserts, for example, that religion is best defined as "a system of beliefs and practices that are relative to superhuman beings" (1995: 893). They argue that such a restrictive definition is best because it "moves away from defining religion as some special kind of experience or worldview" and excludes "quasi-religious religious movements" such as Nazism, Marxism, or Nationalism (1995: 893-4).

While the desire to exclude such movements as religions is understandable, to strictly enforce this definition would be unduly restrictive. It would eliminate some forms of Buddhism, for example, as well as a wide variety of people who consider themselves to be deeply spiritual and who regularly rely on terms like "the sacred" to describe their understanding of the universe or their places in it, but who do not believe in divine beings or supernatural realities. In short, such a restrictive definition of religion would preclude consideration of much naturerelated religiosity.

By way of contrast, the framing of this encyclopedia was influenced more by religion scholar David Chidester's

reflections on the sometimes violent debates and struggles over understandings and definitions of religion. Chidester acknowledges that some working definition of religion is required for its study. But he also argues that because the term "religion has been a contested category, a single, incontestable definition of religion cannot simply be established by academic fiat" (Chidester 1996b: 254). He proposes, instead, a self-consciously vague definition: religion is "that dimension of human experience engaged with sacred norms" (1987: 4).

Chidester acknowledges that some will consider such a definition not only vague but circular, but contends that vagueness can be an asset when trying to understand the diversity of religion. Vagueness is certainly a virtue when studying nature-related religion, partly because there are so many forms of it. Circularity may be inevitable. Chidester asserts, "A descriptive approach to the study of religion requires a circular definition of the sacred: Whatever someone holds to be sacred is sacred." He concludes that the task of religious studies, therefore, "is to describe and interpret sacred norms that are actually held by individuals, communities, and historical traditions" (1987: 4).

This encyclopedia is premised similarly, for to adopt a more restrictive definition would exclude a variety of actors who regularly deploy metaphors of the sacred to describe their deepest spiritual and moral convictions. Moreover, some substantive definitions of religion (which specify things that constitute religion, such as myths, beliefs in divine beings, symbols, rites and ethics) as well as functional ones (which describe how religions operate and influence and/or are influenced by nature and culture), create restrictive lenses that make it impossible for them to apprehend some forms of nature spirituality. So to adopt such definitions would preclude from discussion much of what The Encyclopedia of Religion and Nature set out to illuminate.

Filling out further his understanding of religion as an engagement with the sacred, however this is understood, Chidester adds.

what people hold to be sacred tends to have two important characteristics: ultimate meaning and transcendent power... Religion is not simply a concern with the meaning of human life, but it is also an engagement with the transcendent powers, forces, and processes that human beings have perceived to impinge on their lives (1987: 4).

Such a flexible understanding of religion provides a good starting point for this encyclopedia's inquiry into the connections between nature, religion, and culture. The only part of Chidester's definition that we might need occasionally to set aside is the nebulous term "transcendent" - at least if this evokes a sense of something supernatural or somehow beyond the observable and sensible world - for much nature-based spirituality involves a perception of the sacred as immanent.

From the outset, then, an open operational definition, adapted from Chidester's, has informed the construction of this encyclopedia. It understands religion as "that dimension of human experience engaged with sacred norms, which are related to transformative forces and powers and which people consider to be dangerous and/or beneficent and/or meaningful in some ultimate way." For many, this meaningfulness and the sacred norms associated with it have much to do with nature. And nature itself, another problematic term that also has inspired robust discussion, can be for our purposes understood simply: Nature is that world which includes – but at the same time is perceived to be largely beyond – our human bodies, and which confronts us daily with its apparent otherness.

With such minimalist definitions of religion and nature in mind, how then are we to understand them when they are combined into the term "nature religion"? Here also there is no scholarly consensus, as illustrated in the entry on NATURE RELIGION itself, as well as in my own entry on "Nature Religion" in The Encyclopedia of Religion (Taylor 2005). (Encyclopedia entries mentioned in this introduction are indicated by SMALL CAPITAL LETTERS, as in the previous sentence.) But in contemporary parlance there does seem to be a strong tendency to define as nature religion any religiosity that considers nature to be sacred (extraordinarily powerful in both dangerous and beneficial ways) and worthy of reverent care. This is the simple definition that I will employ in this introduction as shorthand for what I have sometimes called "nature-as-sacred" religion.

This encyclopedia's contributors have not, however, been bound to my own usage of the term in this introduction. Catherine Albanese, for example, in NATURE RELIGION IN THE UNITED STATES, which builds upon her influential book Nature Religion in America (1990), understands the term more broadly. For Albanese, nature religion is a trope for all religious phenomena in which nature is an important religious symbol or conceptual resource, whether or not nature is considered sacred. Careful readers will be alert to the different ways contributors in this encyclopedia may use the same terminology.

In sum, the definitions that shaped the construction of this encyclopedia, and this introduction and reader's guide, were adopted for strategic reasons. The aim in finding simple and inclusive definitions of "religion" and "nature" has been to invite the widest variety of perspectives to engage the meaning and relationships that inhere to the human religious encounter with nature. The aim in defining nature religion as "nature-as-sacred" religion (in this introduction only) has been to distinguish it from "the natural dimension of religion," an apt phrase borrowed from Albanese that I use to represent the entire "religion and nature" or "religion and ecology" field (Albanese

1990: 6). Understanding this wider, natural dimension of religion is certainly as important as understanding religions that consider nature to be sacred. The rest of this introduction and the diversity of entries that follow make this clear.

The Evolution of Interest in Religion and Nature

This overview of the genesis and evolution of interest in religion and nature covers a lot of territory and is necessarily selective. While impressionistic, it does describe the major trends and tendencies characteristic of the religion and nature discussion. It is divided into three sections.

The first section is focused on the United States between the mid-nineteenth century and the age of environmentalism which, despite the presence of conservationists and conservation thinkers before this period, cannot be said to have arrived until the 1960s. This section introduces the important role that differing perspectives on religion and nature played in the rise of environmentalism globally. The second section focuses on the evolution of nature and religion-related thinking among intellectuals, especially since the seventeenth century in Europe, and it follows these streams into the 1960s. This section explores the ways "nature religions" were understood before and after the Darwinian revolution, and suggests some ways in which evolutionary theory transformed the religion and nature debate, both for intellectuals and wider publics. Introducing these two streams sets the stage for an introduction to the perspectives and debates surrounding religion and nature during the age of environmentalism. Taken together, this overview illuminates trends that are likely to continue and thus it poses questions about the future of religion and nature.

Religion and Nature in the American Conservation Movement

When analyzing the ways and reasons people have thought about the relationships between religion and nature, it is wise to consider not only the cultural, but also the environmental context. This is certainly true when we examine the emergence of the conservation movement, and its intersections with perspectives on religion and nature

By the mid-nineteenth century, largely for building construction and the production of "pig iron," deforestation in the United States had begun to evoke environmental alarm. This led to a survey in the Federal Census of 1880 that documented the dramatic decline of American forests. Meanwhile, the fossil-fuel age had begun with the first pumping of petroleum from the ground in 1859

(by Edwin L. Drake in Pennsylvania) and the invention of practical and useful two- and four-stroke internal combustion engines in Europe (in 1875 and 1876). These developments led to the automobile age, which for all practical purposes began in 1885.

The invention of the internal combustion motor was accompanied by a dramatic increase in self-conscious reflection on the role that religion plays in shaping environments. This occurred in no small part because the alteration (and degradation) of the world's environments intensified and accelerated rapidly as humans developed and wielded ever-more powerful petroleum-fueled power tools as they reshaped ecosystems and their own, built environments.

Not coincidentally, this was also a period when ROMANTICISM and other nature-related spiritualities, birthed first in Europe, as well as the modern conservation movement, were germinating on American ground. The artist Frederick Edwin Church, for example, painted "Twilight in the Wilderness" (1860) inspiring the so-called Hudson School and generations of painters and later photographers (see ART), including the twentieth-century photographer ANSEL ADAMS, who depicted the sublime that he found in the American landscape. The American naturalist and political writer HENRY DAVID THOREAU, who was also a leading figure in the religious movement known as TRANSCENDENTAL-ISM, wrote Walden in 1854. He included in it a now-famous aphorism, "in wildness is the preservation of the world" and believed that nature not only has intrinsic value but provides the source of spiritual truth. Thoreau kindled the WILDERNESS RELIGION that found fertile ground in America and provided a spiritual basis for conservation. In The Maine Woods (1864) Thoreau called for the establishment of national forest preserves, helping to set the stage for the National Park movement and the BIOSPHERE RESERVES AND WORLD HERITAGE SITES that would follow. In that very year, the American President Abraham Lincoln protected California's spectacular Yosemite Valley, which eventually expanded in size and became one of the world's first national parks.

Thoreau influenced JOHN MUIR, the Scottish-born nature mystic who, after growing up on a Wisconsin farm and hiking to the Gulf of Mexico as a young man, eventually wandered his way to California in 1868. Muir became one of the first Europeans to explore Yosemite and the rest of the Sierra Nevada Mountains. He found in them a sacred place where he could hear the "divine music" of nature, even giving RALPH WALDO EMERSON, Thoreau's Transcendentalist mentor, a tour of Yosemite Valley in 1871. Muir was, however, bitterly disappointed by Emerson's unwillingness to linger and listen to the valley's sacred voices. In 1892 Muir founded the SIERRA CLUB to prevent the desecration of these mountains by insensitive

In the early twentieth century an archetypal battle was

joined between John Muir and GIFFORD PINCHOT. At this time Muir was America's foremost representative of an ethic of "nature preservation." He would also become the spiritual godfather of the international National Park movement, which was founded significantly on perceptions of the sacredness of natural systems. Pinchot served as the first Chief Forester of the United States between 1899 and 1910. He influentially espoused a utilitarian environmental ethic of fair and responsible use of nature for the benefit of all citizens, present and future.

Pinchot, like many politically progressive Christians of his day in North America, had been decisively influenced by its "Social Gospel" movement, a largely liberal expression of Christianity that sought to apply Christian principles to the social problems of the day. Consequently Pinchot sought to promote "the conservation of natural resources" (bringing the phrase into common parlance) partly to aid the poor and partly to promote democratic ideals against powerful corporate interests, which he believed unwisely despoiled the country's natural heritage. Although Muir and Pinchot initially became friends, based in part on their mutual passion for the outdoors, Pinchot's utilitarian ethic and Muir's preservationist one were incompatible. Their competing values led them, inexorably, into an epic struggle over which management philosophy, with its attendant religious underpinnings, would guide policies related to public wildlands.

Muir considered the grazing of sheep in Yosemite, and later, plans to dam Yosemite's Hetch Hetchy Valley, for example, to be desecrating acts. Pinchot became a powerful federal official who successfully promoted grazing and dam building. Muir denounced Pinchot as an agent of desecration asserting that there was "no holier temple" than Hetch Hetchy Valley. Pinchot thought Muir had failed to apprehend the religious duty to develop natural resources for the good of humankind. The historian Roderick Nash called the Hetch Hetchy controversy a "spiritual watershed" in American environmental history. This watershed demonstrated that a "wilderness cult" had become an important political force in American environmental politics (Nash 1967: 181). (See also WILDER-NESS SOCIETY, MARSHALL, ROBERT and LEOPOLD, ALDO,) In subsequent decades such WILDERNESS RELIGION would remain potent and lead to bitter land-based conflicts all around the world. Indeed, as the preservationist national parks model spread, often alongside and competing with management models that promoted a utilitarian, "multiple use" doctrine for public lands, the cultural divide between the competing ethical and religious orientations represented by Muir and Pinchot appeared to go global.

There were many other dimensions to such religionrelated land-use disputes, however, including the typical deracination (displacement from their original habitats), sometimes by genocide, of the peoples already living on lands designated "public" by nation-states. These people often had their own religious claims and connections to these lands. So as the demand to protect natural places intensified around the world, it involved more than a dispute between the spiritual biocentrism (life-centered ethics) of John Muir and the utilitarian anthropocentrism (human-centered ethics) of Gifford Pinchot. Whether in view or hidden from sight, the resulting disputes often, if not always, intertwined with disputes related to power, ethnicity, class, and nationality (see MANIFEST DESTINY). These controversies were inevitably mixed in with diverse and competing understandings regarding how properly to understand the sacred dimensions of life, and where the sacred might be most powerfully located.

Some of the peoples who survived deracination as the result of the global expansion of nation-states would eventually claim a right to their original lands and landbased spiritual traditions. This trend further complicated the complex relationships between political, natural, and cultural systems. The disputes between Muir and Pinchot were repeated in the years that followed; and to these were added disputes between their spiritual progeny and those who later condemned both conservationist and preservationist movements for promoting an imperial project that harmed the inhabitants of lands immorally, if not illegally, declared public. In the United States and many other countries that established national parks, as environmental degradation continued, movements arose in resistance to them. Such conflicts provided one more tributary to the growing of scholarly interest in religion, nature, and culture.

Religion and Nature from Seventeenth-Century Europe to the Environmental Age

Curiosity about the relationships between nature, religion, and culture, of course, predated the modern conservation era. Much of this resulted from the encounter between anthropological observers and indigenous people, and much of this occurred (from the mid-nineteenth century onward) in a Darwinian context involving an effort to understand the ways in which religions emerged, and changed, through the processes of biological evolution. Put differently, a central question was: How and why did religion evolve from the natural habitats from which humans themselves evolved?

Many answers have been proposed, and these have often been grounded largely upon analyses of the religions of indigenous peoples. In many indigenous societies, the elements or forces of nature are believed to be inspirited and in reciprocal moral relationships in which there are two-way ethical obligations between non-human and human beings. In the eighteenth century such perceptions were labeled, for the first time, NATURE RELIGION and TOTEMISM (which postulated early religion as involving a felt sense of spiritual connection or kinship relationship between

human and nonhuman beings). In the late nineteenth century the anthropologist E.B. Tylor coined the term ANIMISM as a trope for beliefs that the natural world is inspirited. Many early anthropologists considered Totemism and/or Animism to be *an* early if not *the* original religious form. Tylor and many other anthropologists and intellectuals observing (or imagining) indigenous societies also considered their religions to be "primitive," and expected such perceptions and practices to wither away as Western civilization expanded.

Over the past few centuries a variety of terms have been used which capture the family resemblances found in the spiritualities of many indigenous societies, as well as contemporary forms of religious valuation of nature, including "natural religion," "nature worship," "nature mysticism," "Earth religion," PAGANISM and PANTHEISM (belief that the Earth, or even the universe, is divine). Whatever the terms of reference (and readers will do well to consult the specific entries on these terms for their various and often contested, specific definitions), nature religion has been controversial, whether it is that of wilderness aficionados, indigenous people, or pagans. Here we can introduce this rich and contested terrain only by underscoring a few central tendencies, pivotal figures, and watershed moments in the unfolding cultural ferment over religion and nature. In-depth treatments are scattered, of course, throughout the encyclopedia.

In mainstream occidental (Western) culture, which was shaped decisively by the monotheistic, Abrahamic religions (Judaism, Christianity, and Islam), the tendency has been to view what we are calling nature religions (in general) and paganism (in particular) as primitive, regressive, or even evil. (See PAGANISM: A JEWISH PERSPECTIVE, for one example). One way or another, these critics have viewed nature religions negatively as having failed to apprehend or as having willfully rejected a true theocentric understanding of the universe as God-created. According to this point of view, nature religions perilously worship the created order or elements of it rather than the creator God.

Such criticisms came not only from monotheistic conservatives but also from some of the Western world's greatest thinkers. The German philosopher FRIEDRICH HEGEL, for example, advanced an idealistic philosophy that considered nature religions primitive because of their failure to apprehend the divine spirit moving through the dialectical process of history.

There were strong countercurrents, however, to the general tendency to view nature religions negatively. The cultural movement known as ROMANTICISM, already mentioned as an influence on the American conservation movement, emerged as a strong social force in the eighteenth century. Inspired in large measure by the French philosopher JEAN-JACQUES ROUSSEAU (1712–1778), Romanticism was further developed and popularized by a

number of literary figures including Samuel Taylor Coleridge (1772-1834) in England and Johann Wolfgang von Goethe (1749-1832) in Germany. Those philosophers who labored to develop a compelling PHILOSOPHY OF NATURE also played a major role in the influence of Romanticism, both in Europe and America.

The Romantics rejected destructive, dualistic and reductionistic worldviews, which they considered to be a central feature of Western civilization. For Rousseau, and many dissenters to the occidental mainstream before and since, indigenous peoples and their nature religions were not primitive but noble, providing models for an egalitarian and humane way of life, one that was immune from the avarice and strife characteristic of the dominant European cultures. (See ROMANTICISM AND INDIGENOUS PEOPLES and NOBLE SAVAGE.)

It was into this social milieu, in which views about nature religion were already polarized, that CHARLES DARWIN introduced On the Origin of Species in 1859. The work elaborated the nascent theory of evolution that had already begun to emerge, perhaps most significantly, by specifying natural selection as its central process. The theory soon made its own, decisive impact.

For many, evolutionary theory disenchanted (took the spirits out of) the world. Generations of scholars after Darwin came to view religions as originating in misperceptions that natural forces were animated or alive. A close friend of Darwin, John Lubbock, initiated such reflection in The Origin of Civilization and the Primitive Condition of Man (1870), citing as evidence Darwin's observation that dogs mistake inanimate objects for living beings. Lubbock asserted that religion had its origin in a similar misapprehension by early humans.

In the next century an explosion of critically important scholarly works appeared. Most wrestled with what they took to be the natural origins of religion, or with "natural religion," or with what they considered to be the "worship of nature," or with the symbolic importance and function of natural symbols in human cultural and religious life. Among the most important were J.F. McLennan's articles on "The Worship of Animals and Plants" (1869-1870), E.B. Tylor's Primitive Culture (1871), F. Max Müller's Natural Religion (1888), Robertson Smith's Lectures on the Religion of the Semites (1889), Baldwin Spencer and F.J. Gillen's Native Tribes of Central Australia (1899), Emile Durkheim's Elementary Forms of the Religious Life (1912), James G. Frazer's Totemism and Exogamy (1910) and The Worship of Nature (1926), Mircea Eliade's Patterns in Comparative Religion (1958) and The Sacred and the Profane (1959), Claude Lévi-Strauss's Totemism (1962, translation 1969), Victor Turner's Forest of Symbols (1967), and Mary Douglas's Purity and Danger (1966) and Natural Symbols (1970).

Among the high points in these works were E.B. Tylor's invention of the term animism as a name for indigenous

nature religion and a corresponding theory to explain how it came into existence; and FRIEDRICH MAX MÜLLER'S historiography which traced the origin of Indo-European religion to religious metaphors and symbolism grounded in the natural environment, especially the sky and sun. Sir James Frazer, who had been decisively influenced by both of these figures, added his own theories that the personification and "worship of nature" was the common root of all religion and that the remnants of pagan religion can be discerned in European folk culture. Quoting Frazer provides a feeling for the ethos prevalent among these early anthropologists.

[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: 17).

Reflecting the influence of the evolutionary perspective, Frazer thought that nature religions were anthropomorphic superstitions and would naturally be supplanted, first by polytheism, then by monotheism. He also believed that this was part of a "slow and gradual" process that was leading inexorably among civilized peoples to the "despiritualization of the universe" (Frazer 1926: 9). Many anthropological theorists during the nineteenth and early twentieth century seemed to agree that the nature religion characteristic of early humans and the world's remaining "primitives" would eventually be supplanted either with monotheistic forms or no religion at all. Many of these early anthropologists were, therefore, also early proponents of the secularization thesis, which generally expects the decline of religion.

MIRCEA ELIADE drew on much of this earlier scholarship when publishing his seminal works in the 1950s and early 1960s, but in contrast to much of it, he maintained a subtle, positive evaluation of religion, including nature religion. At the heart of his theory lay his belief that early religion was grounded in a perception that a "sacred" reality exists that is different from everyday, "profane" realities, and that it manifests itself at special times and places, usually through natural entities and places. Indeed, for Eliade, the sacred/profane dichotomy was at the center of all religious perception. Moreover, for Eliade, the recognition of the sacred has something fundamental to do with what it means to be human.

Although Eliade's theory was sharply criticized in the latter half of the twentieth century, his exhaustive comparative scholarship helped to establish that, in the history of religions, natural systems and objects are intimately involved in the perception of the sacred, and that this is an important aspect of religious life. Symbolic anthropologists, including Claude Lévi-Strauss (in some minds), Victor Turner, and Mary Douglas, for their part, scrutinized the functions of natural symbols in religion and culture, making provocative suggestions as to why nature draws human attention in a religious way.

Clearly, while there have been many competing perspectives about the relationships between religion and nature, some generalizations can be made. Many people have considered forces and entities in nature to have their own powers, spiritual integrity, or divinity, and have considered plants and animals, as well as certain earthly and celestial places, to be sacred. Certainly, these kinds of beliefs have often enjoined specific ritual and ethical obligations. Undoubtedly, the forces and entities of nature have been important and sometimes central religious symbols that work for people and their cultures in one way or another. Even when these entities and forces are not themselves considered divine, sacred, or even personal, they can point or provide access to divine beings or powers that are beyond ordinary perception. In sum, to borrow an expression from Claude Lévi-Strauss who first used it when reflecting, more narrowly, about animals in the history of religion, nature, from the most distant reaches of the imagined universe, to the middle of the Earth, is religiously "good to think."

Religion and Nature in the Environmental Age

This brief review brings us up to the 1960s, the cusp of the age of environmental awareness and concern, which was symbolically inaugurated with the celebration of the first Earth Day in 1970. This was a period characterized by an explosion of interest in religion and nature, although such interest was not new. What was novel was a wide-spread and rapidly growing alarm about environmental deterioration, which for some added an apocalyptic urgency to the quest to determine whether religion was to blame or might provide an antidote. If so, the question naturally followed, of what sort would such an antidote be?

A multitude of entries in this encyclopedia explore this period and its competing perspectives. Here we will outline the main streams of discussion from this period to the present, noting especially how the environmental consequences of religious belief and practice came to the fore-

front of the discussion for the first time. Discussion of the main issues and questions that were engaged are listed in the following three subsections.

World Religions and Environmentalism

In 1967 CLARENCE GLACKEN published Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century. It was the most important historical overview of the complicated and ambiguous relationships between religion and nature in the Western world. Especially detailed in its analysis of Classical culture (including its pagan dimensions and long-term cultural echoes) and Christianity, it brought the reader right up to the advent of the Darwinian age. Donald Worster in Nature's Economy: A History of Ecological Ideas (1977, second edition 1994) continued the story up and into the age of ecology. This work helped inspire further scholarly investigation during the 1960s and 1970s of the environmental impacts brought on by Western culture and its philosophical, religious, and scientific underpinnings. Taken together, these works portray (sometimes in an oversimplified manner) an epic struggle in Western culture between organicist and mechanist worldviews and concomitantly - between those who view the natural world as somehow sacred and having intrinsic value, and those who view the Earth as a way station to a heavenly realm beyond the Earth, or, who viewed life on Earth in a utilitarian way, as having value only in its usefulness to human ends. A common dialectic in these works, as seen in the growing body of literature that followed, was the notion that religious ideas were decisive variables in human culture, and thus, they were either culprit or savior with regard to environmental and social well-being.

It was during the decade between the publication of Glacken's and Worster's works (1967 and 1977) that ENVIRONMENTAL ETHICS sprang forth as a distinct subdiscipline in philosophy. While there were many factors that led to this outpouring of ethical interest in nature, a short article by the historian Lynn White became a lightning rod for much of the subsequent discussion. Indeed, the LYNN WHITE THESIS became well known and played a significant role in the intense scrutiny that would soon be focused on the environmental values and practices that inhere to the so-called "world religions." ("World religions" is shorthand for Judaism, Christianity, Islam, Daoism, Confucianism, Buddhism, Hinduism, and sometimes Jainism, which are commonly considered of major importance either because of their antiquity, influence, transnational character, or large number of adherents.)

Published in 1967 in the widely read journal *Science*, White's article contended that monotheistic, occidental religions, especially Christianity, fostered anti-nature ideas and behaviors. His most striking and influential claim, however, may have been: "Since the roots of our

[environmental] trouble[s] are so largely religious, the remedy must also be essentially religious" (White 1967: 1207). Although others had expressed such views long before he did, the increasing receptivity in America to non-Western religious beliefs that accompanied the 1960s cultural upheavals, combined with the simultaneous growth of environmental alarm, made the ground fertile for the reception and debate of such views. Much of the environmental alarm was precipitated by RACHEL CARSON an American scientist who was motivated by her own deep, spiritual connections to nature - whose Silent Spring (1962) warned about the environmentally devastating consequences of industrial pollution and pesticide use. With such works fueling environmental anxieties, White's assertions quickly engendered several types of response, both among scholars and the wider public.

From those already acquainted with such arguments, there was often hearty agreement. Some had already been influenced by Romantic thought, or by historical analyses such as Perry Miller's classic work, Errand into the Wilderness (1956), which analyzed the Puritans' encounter with wild nature in America, or Max Weber's The Protestant Ethic and the Spirit of Capitalism (1958), which found in religious ideas the roots of capitalism's voracious appetite for nature's resources. White's thesis also inculcated or reinforced beliefs that were becoming more prevalent in America, that religions originating in Asia, or nature religions including those of indigenous societies, were spiritually and ethically superior to those which had come to predominate in the Western world. This was ironic, for White thought there were currents in the Christian tradition that could provide solid ground for environmental ethics.

Those in the monotheistic, Abrahamic traditions, who encountered such perspectives, tended to respond in one of three ways: either apologetically, arguing that properly understood, their traditions were environmentally sensitive; in a confessional way, acknowledging that there were truths to such criticisms and that internal religious reform should be undertaken to make their religions environmentally responsible; or with indifference, viewing the criticisms, and environmental concern, as of minor if any importance to their religious faith. This latter response ironically provided evidence for the critical aspects of White's thesis.

These types of responses came from both laypeople and scholars. Scholarly experts in sacred texts, both those religiously committed and uncommitted to the traditions associated with them, began investigating these texts and other evidence about their traditions for their explicit or implicit environmental values.

Before long, the soul searching White's thesis helped to precipitate within occidental religions began to be taken up by devotees and scholars of religions originating in Asia. This occurred, in part, because of certain scholarly

reactions to White's thesis. The geographer Yi Fu Tuan, for example, pointed out in an influential article published in 1968, that deforestation was prevalent before the advent of Christianity. Moreover, he asserted, in China there was great abuse of the land before Western civilization could influence it.

Following Tuan, gradually, more scholars began to ask, "Why has environmental decline been so pronounced in Asia if, as had become widely believed, Asian religions promote environmental responsibility?" Just as White's thesis had precipitated apologetic, confessional, and indifferent reactions within the world's Abrahamic traditions, the diverse reactions to White's thesis triggered similar reactions among religionists and scholars engaged with Asian religions.

In the case of both Western and Asian religions, religious studies scholars played a significant role in the efforts to understand the environmental strengths and weaknesses of their traditions. Scholars of religion have often played twin roles as observers and participants in the religions they study, of course, so it is unsurprising that, in the face of newly perceived environmental challenges, they would play a role in rethinking the traditions' responsibilities in the light of them. Quite a number of them, indeed, became directly involved in efforts to push the traditions they were analyzing toward ethics that take environmental sustainability as a central objective. The many, diverse entries exploring the world's religious traditions describe in substantial detail the emergence of efforts to turn the world's major religious traditions green. The role of religion scholars in these efforts is reviewed in RELIGIOUS STUDIES AND ENVIRONMENTAL CONCERN.

What is perhaps most remarkable about these efforts is how rapidly the environment became a centerpiece of moral concern for substantial numbers of religious practitioners, and scholars engaged with the world's major religious traditions. More empirical work is needed to understand the extent to which and in what ways environmental values have been influencing practitioners of the world's dominant religions. Early efforts by social scientists to understand these trends, and the challenges they face as they seek to do so, are assessed in SOCIAL SCIENCE ON RELIGION AND NATURE.

Nature Religions and Environmentalism

In addition to the view that Asian religions provide an antidote to the West's environmental destructiveness, nature religions have been offered as alternatives which foster environmentally sensitive values and behaviors. While indigenous societies have been foremost in mind in this regard, paganism, whether newly invented or revitalized from what can be reconstructed of a pre-Christian past (or both), has also been considered by some to offer an environmentally sensitive alternative. In this light or sense, a variety of new religious movements, recreational practices, scientific endeavor, and other professional work, can also be understood as nature religions.

As was the case in the late nineteenth and early twentieth century, during the age of ecology, anthropology was a major contributor to the debates. But the tendency to view negatively such cultures was decisively reversed as some anthropologists began to ask questions *from* an evolutionary perspective. The most important of these was whether religion in general (and the religions of indigenous societies in particular) served to enhance the survival of the human organism. Put differently, they asked: Does religion help the human species to adapt successfully to its natural habitats, and if so, under what circumstances?

The answer that many came to was that the taboos, ethical mores, and rituals that accompany religious worldviews often evolve in such a way that the religion promotes environmental health and thus individual reproduction and group survival.

This kind of perspective can be briefly illustrated. In the mid-twentieth century, the anthropologist Julian Steward, whose own work in "cultural ecology" was based foremost on his analyses of the relationships between indigenous peoples of western North America's Great Basin, argued that human culture represents an ecological adaptation of a group to its specific environment. He asserted that such adaptation always involved the effort to harness and control energy. The anthropologist Leslie White, who like Steward based his perspective on studies of North American Indians, also considered social evolution to involve the effort to harness and control energy. In the 1960s, MARVIN HARRIS followed their lead, especially spotlighting the role of religion. He found, for example, that the myth of the sacred cow in India confers on the human cultures of South Asia material and ecological advantages. The myth functioned in an ecologically adaptive manner, he argued, by helping to maintain the nutrient cycles necessary for India's agro-ecosystems, thus maintaining the carrying capacity of the land. An often cited quote from Harris conveys his perspective:

Beliefs and rituals that appear to the nonanthropological observer as wholly irrational, whimsical, and even maladaptive have been shown to possess important positive functions and to be the dependent variable of recurrent adaptive processes (1971: 556).

ROY RAPPAPORT was another anthropologist who began publishing in the mid-1960s, including his path-breaking book, *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People* (1968). His arguments had affinities with Steward and Harris, but his focus was on how religious rituals and symbol systems can function in ecologically adaptive ways. Indeed, for Rappaport, "Religious rituals

... are ... neither more nor less than part of the behavioral repertoire employed by an aggregate of organisms in adjusting to its environment" (Rappaport 1979: 28).

For such theorists, religions evolve and function to help people create successful adaptations to their diverse environmental niches. Moreover, naturalistic evolutionary assumptions (rather than the supernaturalistic beliefs of their adherents) are sufficient for understanding the complex relationships between religions and ecosystems. Such a theoretical perspective, it is important to note, is the opposite of the idealistic premises informing much of the rest of the religion-and-nature discussion, which has tended to assume that religious ideas are the driving force behind environmental changes.

Steward, White, Harris, and Rappaport are considered pioneers of the fields variously called "cultural ecology," "ecological anthropology," and "historical ecology." Sometimes dismissed as "environmental determinists" by their critics, in their own distinct ways, they brought evolution forcefully back into the analysis of human/ecosystem relationships by insisting that, while there certainly are reciprocal influences between human beings and the natural world, the ways human beings and their religious cultures are shaped *by* nature and its evolutionary processes should not be forgotten.

ETHNOBOTANY is another sub-field of anthropology that was influenced by and contributed to analyses of ecological adaptation. Its roots can be traced to early twentieth-century efforts to document the uses of plants by indigenous peoples. By mid-century, however, its focus had expanded to an analysis of the ways in which plants are used in traditional societies to promote the health of people, their cultures, and environments. Ethnobotany has been interested in the way plants are used to effect healing and facilitate connection and harmony with divine realities, as well as (sometimes) in the ecosystem changes brought on by such uses.

Ethnobotany became a major tributary to a related but broader line of anthropological inquiry into "indigenous knowledge systems" and TRADITIONAL ECOLOGICAL KNOWLEDGE, which is a subset of such knowledge systems. Here the focus was on the entire corpus of ecological knowledge gained by a people in adapting to their environments over time. Quite often, this analysis attended to the ways in which religious beliefs and practices become intertwined with such knowledge and inseparable from it. Leading figures in ethnobotany and in the analysis of traditional ecological knowledge included Harold Conklin, Richard Schultes, Darrell Posey, William Balée, Gerardo Reichel-Dolmatoff, and Stephen Lansing. In various ways and drawing on research among different peoples, they asserted that religious beliefs in general, including those having to do with the spiritual importance or power of plants, animals, and sacred places, can lead to practices

that maintained the integrity of the ecosystems to which they belonged. A large volume edited by Darrel Posey entitled *Cultural and Spiritual Values of Biodiversity* (1999), which was published by the United Nations Environmental Programme, shows the growing influence of such analysis.

For many of the anthropologists investigating religion/environment relationships in indigenous cultures, it was irrelevant whether indigenous people accurately perceived dimensions of experience outside of the powers of ordinary observation (such as divine spirits in natural entities). Some analysts of such systems, however, based on experiences they had while living among indigenous peoples and participating in their lifeways and ceremonies, became convinced that there were important spiritual truths expressed by their worldviews and practices. For those moved spiritually by these cultures there was value in them beyond their ability to foster environmentally sustainable lifeways.

The preceding developments, leading to the conclusion that the worldviews of indigenous cultures promote environmentally sustainable lifeways, represented a remarkable shift in the understanding of such peoples. But this change did not go unchallenged. Critics including Shepard Kretch argued that these sorts of perspectives which purported to find ecological sensitivity embedded in cultures living in relatively close proximity to natural ecosystems - actually expressed an unfounded and romantic (and often denigrating) view of indigenous people. Some such critics complained that tropes of the "ecological Indian" perpetuate views of indigenous people as primitive and unable to think scientifically. The use of plants and animals in traditional medicines, which has contributed significantly to the dramatic decline of some species, was used as evidence to question assertions that indigenous, nature-oriented religions are adaptive, rather than maladaptive, with regard to ecosystem viability.

This introduction to the lively debates about indigenous societies and their nature religions can be followed up in a number of entries (and the cross-references in them), including AMERICAN INDIANS AS "FIRST ECOLOGISTS," ANTHROPOLOGY, ANTHROPOLOGY AS A SOURCE OF NATURE RELIGION, ECOLOGY AND RELIGION, ECOLOGICAL ANTHROPOLOGY, ETHNOBOTANY, RELIGIOUS ENVIRONMENTALIST PARADIGM, and TRADITIONAL ECOLOGICAL KNOWLEDGE.

PAGANISM, including WICCA, HEATHENRY, and DRUIDRY, to name a few types, is another form of nature religion that has also enjoyed a positive reappraisal during the age of ecology. Contemporary Paganism is now often labeled "neo-paganism" to contrast current forms with Classical ones, or to indicate that such spirituality has been undergoing a process that involves (depending on the analysis) either revitalization (based on formerly underground and suppressed knowledge), or imaginative reconstruction

(based on what can be surmised about pre-monotheistic religions through archeological and historical research). Much of this new religious production draws directly on (sometimes discredited) scholarly work. James Frazer's belief that remnants of pagan worldviews and lifeways can be discerned in the folk customs of Europe provided pagans a sourcebook in folk culture for the construction of their religions. The poet and literary figure ROBERT VON RANKE GRAVES in The White Goddess (1948) offered an influential work subsequently used by many pagans to construct their own goddess-centered, Earth-revering spirituality. And the archeologist Marija Gimbutas - who controversially claimed in the 1980s and 1990s that a goddess-centered culture, which honored women and the Earth, existed in much of Eastern Europe prior to the invasion of a bellicose and patriarchal Indo-European society – provided what for many pagans was an inspiring vision of the potential to reestablish egalitarian, Earth-revering, pagan culture.

Indeed, toward the end of the twentieth century, a growing number of scholars who identified themselves as pagan were involved in the diverse efforts to make viable religious options out of these traditions. A part of this endeavor has involved assertions that paganism holds nature sacred and therefore has inherent reason to promote its protection and reverent care. This kind of perspective proliferated as did the number of tabloids, magazines, journals, and books devoted to analyzing, and promoting, contemporary paganism.

Paganism thus became an attractive religious alternative for some non-indigenous moderns, perhaps especially environmentally concerned ones, who value indigenous religious cultures for their environmental values, but either found them largely inaccessible, or chose not to borrow from them because of the often strongly asserted view that efforts to "borrow" from indigenous peoples actually constitute cultural theft. (Various perspectives in this regard are discussed in INDIGENOUS RELIGIONS AND CULTURAL BORROWING.) Paganism also sometimes shares ideas and members, and certainly has some affinities, with those environmental movements that expressly consider nature to be sacred, such as BIOREGIONALISM, DEEP ECOLOGY, ECOFEMINISM, ECOPSYCHOLOGY, and RADICAL ENVIRONMENTALISM. Participants in these movements usually view both indigenous and pagan religions as environmentally salutary and often link their own identity to such spirituality.

A growing number of scientists, including those pioneering the fields of CONSERVATION BIOLOGY and RESTORATION ECOLOGY, and those promoting RELIGIOUS NATURALISM, share a central, common denominator belief in nature religions regarding the sacredness of life. Unlike many of the other forms of nature religion, they tend to stress the sacrality of the evolutionary processes that produce biological diversity. Participants in such scientific professions often

view their work as a spiritual practice. Some of these have been influenced by those who, like the religion scholar thomas berry, believe that science-grounded cosmological and evolutionary narratives should be understood as sacred narratives, and that so understood, they will promote reverence-for-life ethics. The entomologist edward o. wilson's apt phase for the grandeur of the evolutionary process, which he called the "EPIC OF EVOLUTION"; the "GAIA" theory, which was developed by atmospheric scientist James Lovelock and conceives of the biosphere as a self-regulating organism; as well as Chaos and complexity theory, which draw on advanced cosmological science and reinforce metaphysics of interdependence, have all been used to express this kind of spirituality.

Such science has contributed, through EVOLUTIONARY EVANGELISM and ritual processes such as the COUNCIL OF ALL BEINGS, to efforts to resacralize the human perception of the Earth. Indeed, scientific narratives reverencing cosmological and biological evolution are increasingly being grafted onto existing world religions. They are also emerging as new religious forms, independent of the long-standing religious traditions. Some such scientific nature religion, while relying on metaphors of the sacred to describe feelings of belonging and attachment to the biosphere, sometimes also self-consciously express a non-supernaturalistic worldview.

Whether they retain or eschew supernaturalism, sacralized evolutionary narratives are proving influential in international venues – perhaps most significantly through the EARTH CHARTER initiative and during the UNITED NATION'S "EARTH SUMMITS" – in which belief in evolution and a reverence for life are increasingly affirmed. These sorts of religious developments suggest some of the directions that nature religion may continue to move in the future.

Many New Religious Movements and forms of New Age spirituality also qualify as nature religions, including religiosity related to astrology, crop circles, dolphins, satanism, the council of all beings, the harmonic convergence, the men's movement, and ufos and extra terrestrials. A wide variety of recreational and other practices that might not seem at first glance to have anything to do with nature spirituality can on close observation also qualify, such as mountaineering, rock climbing, surfing, fly fishing, hunting, gardening, and even attendance at motion pictures and theme parks. As was the case with paganism, during the environmental age, these diverse practices and forms of spirituality have increasingly taken on green characteristics, which are then, to an uncertain degree, integrated into worldviews and ethics.

The New Age movement has contributed significantly to the spiritualities and ritualizing of other nature religions, including paganism and radical environmentalism, to name just two. The reciprocal influences among nonmainstream religious subcultures have begun to draw more scholarly attention, as for example in *The Cultic Milieu: Oppositional Subcultures in an Age of Globalization* (Kaplan and Lööw 2002). Such an analysis is pertinent to the examination of much nature-related religious production, as can be seen in PAGAN FESTIVALS, NEW AGE, and the CELESTINE PROPHESY, among other entries.

Like most religions, nature religions carve out their religious identity in contrast (indeed often in self-conscious opposition) to other religious perspectives and interests. Participants in nature religions tend especially to criticize other religions for their environmental failings. Nature religions themselves, as we have seen, have long been criticized as misguided, primitive, and dangerous. Beginning in the 1980s they have also sometimes been charged with being violence-prone and criticized for promoting ethnic nationalism, and even racism and Fascism. (See also NEO-PAGANISM AND ETHNIC NATIONALISM IN EASTERN EUROPE.)

In the age of ecology, then, it is clear that nature religions received a mixed reception, both denigrated as regressive and lauded for promoting environmental sensitivity. While scholars and laypeople continued to express both points of view and the issue may have become more polarized, it is also true that significant growth toward more positive views occurred. Indeed, as illustrated in Religious environmentalist paradigm, an increasing number of scholars express a Rousseau-like belief in the superiority of those societies that can be characterized as having intimate spiritual relationships with nature; especially when such societies are compared to those with otherworldly cosmologies and/or which privilege science-based epistemologies.

Theories on the Natural Origins and Persistence of Religion

A third important area of discussion regarding the relationships between religion and nature intensified during the age of ecology. It reprised the effort to uncover the origins and persistence of religious and ethical systems, by examining both biological and cultural evolution.

Like James Frazer, who viewed religion as a product of evolution grounded in an anthropomorphism that personifies natural phenomena, these newer theories continued to be reductionistic; they implicitly or explicitly discounted what believers consider to be the "truths" involved. While such evolutionary theories were inevitably speculative in nature, the newer ones had the advantage of being able to draw on new fields such as evolutionary psychology and cognitive science, as well as on a much more sophisticated and critical body of ethnographic data.

Edward Wilson began his career as an entomologist and became, by the end of the twentieth century, one of America's best-known scientists, in part due to his work on biological diversity and because of the growing concern about losses to it. But in 1984 he published Biophilia: The Human Bond with Other Species, in which he articulated an important theory that purported to explain the origins of the human love for nature. His thinking along these lines was an outgrowth of his broader theory on the origins of ethical systems, published as Sociobiology (in 1975). This theory asserted that affective, spiritual, and moral sentiments all evolve from evolutionary processes because they favor individual and collective survival. Ethics in general and environmental values in particular, therefore, are the natural result of human organisms finding their ecological niche and adapting to their environment. Wilson's ideas stimulated much of the subsequent discussion over the possibility of an evolutionary root of religion, ethics, and environmental concern.

Among the most important works to follow were Stewart Guthrie's Faces in The Clouds: A New Theory of Religion (1993), Pascal Boyer's The Naturalness of Religious Ideas: A Cognitive Theory of Religion (1994) and Religion Explained: The Evolutionary Origins of Religious Thought (2001), Walter Burkert's Creation of the Sacred: Tracks of Biology in Early Religions (1996), V.S. Ramachandran and Sandra Blakeslee's Phantoms in the Brain (1998), David Sloan Wilson's Darwin's Cathedral: Evolution, Religion, and the Nature of Society (2002), and Scott Atran's In Gods We Trust: The Evolutionary Landscape of Religion (2002).

Guthrie sounded much like Frazer, drawing on cognitive science and psychology to argue that religion is, essentially, anthropomorphism, resulting from the human penchant to explain realities by attributing them to something resembling human agency. According to Guthrie, humans opt for such beliefs unconsciously, for the most part, but they do so for what are ultimately rational reasons, for if the belief is correct, then there is much to gain from it and little to lose if the belief is unfounded.

Boyer, Burkert, and Atran agreed with much of Guthrie's analysis, tracing religiosity, at least in part, to the existential challenges that come with the uncertainties of life, and a corresponding tendency to anthropomorphize natural entities and forces. Guthrie lucidly explained the logic behind such human cognitive tendencies, which ready us for important contingencies and for appropriate responses. If we see something as alive, we can, for example, try to escape or capture it. If we see it as humanlike, we still can do these or try to form a social relationship. If we are mistaken in such identification, the penalty typically is light. In consequence, our practice in the face of uncertainty is to guess at animacy over inanimacy and humanlikeness over its absence ... Thus, we play it safe by betting high. (Guthrie 1997: 495) ([See also hunting and the origins of religion.]).

David Sloan Wilson takes a similar approach to these theorists, drawing on evolutionary and cognitive science, agreeing that religion is a product of evolution and that the religious beliefs of its practitioners are fallacious. Like them, he sees survival value in the tendencies that spur religion. He concluded, however, in a way that seemed to echo Edward O. Wilson's arguably more positive view of religion: religion promotes individual and collective fitness by providing values that promote cooperative behaviors that in turn enhance the prospects for survival. This point of view resembles that of Edward Wilson's later work, in which he expressed hope that new religious forms and values would evolve that would be grounded in science and promote environmental conservation.

The theorists introduced here agree that nature plays a major, if not the decisive role in shaping human culture, religion, and survival strategies. But they disagree about many of the particulars - for example, about whether religion is ecologically adaptive, maladaptive, both, or neither. Moreover, they face strong criticisms from scholars who believe they overemphasize the influence of nature on people and their societies, and neglect the importance of human agency and the power of culture. The archeologist Jacques Cauvin, for one important example, disputes those who claim to have revealed environmental or materialist causes for the shift from foraging lifeways and animistic spiritualities to agriculture and theistic religions. In The Birth of the Gods and the Origins of Agriculture (2000), he claimed that archeological evidence proves that belief in gods predated the agricultural revolution. He deduced from this his conclusion that those who believe theistic religion is a product (or an adaptation related to) the domestication of plants and animals, cannot muster compelling supporting evidence.

The body of research available as data for those exploring such issues has grown rapidly. Discussion and debate will continue over the origins, persistence, or "natural decline" of religion, as well as over its possible ecological functions. New lines of inquiry may play increasingly important roles. Just as cognitive science exploring human consciousness has spurred further debate, ethology (the study of animal cognition and behavior) is also beginning to make some interesting if speculative suggestions. In this encyclopedia, for example, JANE GOODALL reflects on the possibility of a kind of nature-related PRIMATE SPIRITUALITY, based on her observations of chimpanzee behavior near jungle waterfalls, and Mark Beckoff, in COGNITIVE ETHOLOGY, SOCIAL MORALITY, AND ETHICS, argues that such science may well revolutionize human understandings of both religion and ethics, extending both beyond humankind.

While there is a robust debate under way among the various theorists and perspectives which is here only briefly introduced, it is critical to remember that these perspectives are not mutually exclusive. There may be strong "natural" inclinations to religious perception, as well as maladaptive and/or adaptive functions of such religions, for example. With regard to the possible ecological functions of religion, it would be wise to remember, as Gustavo Benavides suggests in ECOLOGY AND RELIGION, that "adaptation is a process rather than a state." Therefore, it is important to analyze both maladaptive and adaptive religious phenomena, and even more importantly for environmental conservation, to determine the circumstances under which religion might shift from maladaptive to adaptive forms.

Religion and Nature and the Future of Religion and Nature

Shortly before his death in 1975, the British historian Arnold Toynbee argued

The present threat to mankind's survival can be removed only by a revolutionary change of heart in individual human beings. This change of heart must be inspired by religion in order to generate the will power needed for putting arduous new ideals into practice (Porritt 1984: 211; for the original quote see Toynbee and Ikeda 1976: 37).

Jonathan Porritt, who paraphrased Toynbee in this quote, was a prominent member of the International Green Party movement in the 1970s and went on to lead Friends of the Earth (UK) in 1984. Porritt's subsequent comment on Toynbee's view illustrates a common understanding about religion found within green subcultures all around the world:

I would accept this analysis, and would argue therefore that some kind of spiritual commitment, or religion in its true meaning (namely, the reconnection between each of us and the source of all life), is a fundamental part of the transformation that ecologists are talking about (Porritt 1984: 211).

Obviously, Lynn White was not the only one who was convinced that religion was a decisive factor in the environmental past and that it could play an equally important role in the future. For his part, Toynbee thought that humankind needed a new religion that respected natural systems and that such a religion would resemble pantheism. Moreover, such a religion would have more in common with Buddhism than with historical monotheism, which he thought (again like White) was especially responsible for environmental decline.

Such views, that religion could be both a cause and a solution to environmental decline, precipitated much

of the ferment over religion and nature throughout the environmental age. It certainly led to efforts to awaken the world's predominant religious traditions to an understanding that the protection of the Earth and its living systems should be considered a "sacred trust" (as the EARTH CHARTER ecumenically put it). This idealistic assumption, that religious ideas can shape environmental behavior, has also inspired many efforts to revitalize or invent nature religions, all of which in one way or another consider nature to be sacred, and deduce from this perception a reverence-for-life ethic. It is not easy to answer whether this idealistic perspective is correct; this introduction and many of the entries to which it points demonstrate how complicated such an assessment can be. It may well be that those who argue that religion is an important or decisive variable in the ways in which human beings relate to the Earth's living systems are simply exaggerating the importance of religious ideas when it comes to their influence on environment-related

If those who think that religion is a decisive or important variable in the human impact on nature are correct, however, or even on the right track and in need only of minor correction, then the inquiry into the relationships between people and Earth's living systems is not merely an intellectual exercise. The answers, however murky, might illuminate the paths to an environmentally sustainable, and perhaps even a socially just future. The answers might just suggest promising ways to think about the proper relationships between people and other forms of life, and inspire actions in concert with them. Although many engaged in the religion-and-nature field hope for such a payoff, the diverse and contested approaches to religion and nature revealed in this encyclopedia suggest that any consensus will be difficult to achieve.

In addition to questions about whether and to what extent religion has shaped or might shape environments (negatively or positively), this encyclopedia introduces and addresses a battery of additional conundrums. These include questions along a path less often traveled during the debates over religion and ecology: especially questions regarding the impact of nature, and different natures for that matter, on human consciousness in general and on religion (and religion-inspired environmental practices) in particular.

Perhaps these sorts of questions, while fundamentally scientific in nature, are themselves a reflection of new ethical forms that began to flower in the wake of Darwinian thought. These values are quite easily deduced from an evolutionary worldview, which promotes a sense of kinship grounded in an understanding that all life shares a common ancestor and came into existence through the same survival struggle. These values displace human beings from an isolated place, alone at the center of moral concern. Perhaps these scientific questions, in reciprocal

production with new forms of religious thought, will shape the religious hybrids that will come to characterize most the religious future. Perhaps these hybrids will prove adaptive, facilitating the survival not only of the human community, but also of the wider community of life, upon which humans depend. If so, this exceptionally interesting species, *Homo sapiens sapiens*, might yet live up to its lofty (if self-designated and highly ironic) name.

Bron Taylor

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