

Introduction: The Emerging Alliance of World Religions and Ecology

THIS ISSUE OF *DÆDALUS* brings together for the first time diverse perspectives from the world's religious traditions regarding attitudes toward nature with reflections from the fields of science, public policy, and ethics. The scholars of religion in this volume identify symbolic, scriptural, and ethical dimensions within particular religions in their relations with the natural world. They examine these dimensions both historically and in response to contemporary environmental problems.

Our *Dædalus* planning conference in October of 1999 focused on climate change as a planetary environmental concern.¹ As Bill McKibben alerted us more than a decade ago, global warming may well be signaling “the end of nature” as we have come to know it.² It may prove to be one of our most challenging issues in the century ahead, certainly one that will need the involvement of the world's religions in addressing its causes and alleviating its symptoms. The *State of the World 2000* report cites climate change (along with population) as the critical challenge of the new century. It notes that in solving this problem, “all of society's institutions—from organized religion to corporations—have a role to play.”³ That religions have a role to play along with other institutions and academic disciplines is also the premise of this issue of *Dædalus*.

The call for the involvement of religion begins with the lead essays by a scientist, a policy expert, and an ethicist. Michael

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McElroy, chairman of the Harvard University department of earth and planetary sciences, outlines the history of the earth's evolution, thus providing a comprehensive context for understanding the current impact of humans on global climate change. As McElroy observes, while the earth's evolution has occurred over some 4.6 billion years, *Homo sapiens sapiens* appeared only some 150,000 years ago. Moreover, in the last few hundred years of the industrial revolution, humans have radically altered the nature of the planet—warming its climate, depleting its resources, polluting its soil, water, and air. He cites the cultural historian Thomas Berry and his perspective on the evolutionary story of the emergence of life as providing “our primary revelatory experience of the divine.” McElroy observes that to change the global environment irreversibly without concern for the consequences to present or future generations creates a fundamental challenge for the moral principles of the world's religions. Public-policy expert Donald Brown elaborates further on the nature of contemporary climate change and the human impact on this process. He echoes McElroy's call for the ethical involvement of the world's religions in mitigating the human causes and planetary effects of climate change. Environmental ethicist J. Baird Callicott proposes a method to bring together the larger scientific story of evolution outlined in McElroy's essay with the diversity of the world's religions. He describes this as an “orchestral approach” embracing the varied ethical positions of the world's religions in an emerging global environmental ethics.

No definitive attempt is made in this issue to articulate a comprehensive environmental ethics. However, the essays that follow, written by scholars of religion, suggest manifold ways of creatively rethinking human-Earth relations and of activating informed environmental concern from the varied perspectives of the world's religions. The objective here is to present a prismatic view of the potential and actual resources embedded in the world's religions for supporting sustainable practices toward the environment. An underlying assumption is that most religious traditions have developed attitudes of respect, rever-

ence, and care for the natural world that brings forth life in its diverse forms. Furthermore, it is assumed that issues of social justice and environmental integrity need to be intricately linked for creating the conditions for a sustainable future.

Several qualifications regarding the various roles of religion should be mentioned at the outset. First, we do not wish to suggest here that any one religious tradition has a privileged ecological perspective. Rather, multiple perspectives may be the most helpful in identifying the contributions of the world's religions to the flourishing of life for future generations. This is an interreligious project.

Second, while we assume that religions are necessary partners in the current ecological movement, they are not sufficient without the indispensable contributions of science, economics, education, and policy to the varied challenges of current environmental problems. Therefore, this is an interdisciplinary effort in which religions can play a part.

Third, we acknowledge that there is frequently a disjunction between principles and practices: ecologically sensitive ideas in religions are not always evident in environmental practices in particular civilizations. Many civilizations have overused their environments, with or without religious sanction.

Finally, we are keenly aware that religions have all too frequently contributed to tensions and conflict among ethnic groups, both historically and at present. Dogmatic rigidity, inflexible claims of truth, and misuse of institutional and communal power by religions have led to tragic consequences in various parts of the globe.

Nonetheless, while religions have often preserved traditional ways, they have also provoked social change. They can be limiting but also liberating in their outlooks. In the twentieth century, for example, religious leaders and theologians helped to give birth to progressive movements such as civil rights for minorities, social justice for the poor, and liberation for women. More recently, religious groups were instrumental in launching a movement called Jubilee 2000 for debt reduction for poor nations.⁴ Although the world's religions have been slow to

respond to our current environmental crises, their moral authority and their institutional power may help effect a change in attitudes, practices, and public policies.

As key repositories of enduring civilizational values and as indispensable motivators in moral transformation, religions have an important role to play in projecting persuasive visions of a more sustainable future. This is especially true because our attitudes toward nature have been consciously and unconsciously conditioned by our religious worldviews. Over thirty years ago the historian Lynn White observed this when he noted: “What people do about their ecology depends on what they think about themselves in relation to things around them. Human ecology is deeply conditioned by beliefs about our nature and destiny—that is, by religion.”⁵ White’s article signaled the beginning of contemporary reflection on how environmental attitudes are shaped by religious worldviews. It is only in recent years, however, that this topic has been more fully explored, especially in the ten conferences on world religions and ecology held at the Center for the Study of World Religions at Harvard Divinity School from 1996–1998.⁶ Awareness of this reality has led to the identification, in the published conference volumes, of religious perspectives especially rich in resources for defining principles that may help us preserve nature and protect the earth community.⁷

In soliciting essays for this issue of *Dædalus*, we asked scholars of various religions to address a few key questions: 1) What cosmological dimensions in this tradition help relate humans to nature? 2) How do this tradition and its sacred texts support or challenge the idea of nature as simply a utilitarian resource? 3) What are the core values from this tradition that can lead to the creation of an effective environmental ethics? 4) From within this religious tradition, can we identify responsible human practices toward natural systems, sustainable communities, and future generations? It was considered important that the religion scholars reflect on these broad questions in order to identify those attitudes, values, and practices that might be most appropriate in addressing contemporary environmental problems, especially climate change.

THE CHALLENGE OF THE ENVIRONMENTAL CRISIS

The environmental crisis has been well documented as a plural reality in its various interconnected aspects of resource depletion and species extinction, pollution growth and climate change, population explosion and overconsumption. Thus, while we are using the term “environmental crisis” in a singular form, we recognize the diverse nature of the interrelated problems. These problems have been subject to extensive analysis and scrutiny by the scientific and policy communities and, although comprehensive solutions remain elusive, there is an emerging consensus that the environmental crisis is both global in scope and local in impact. The Worldwatch Institute has been monitoring the global deterioration of the environment over the last two decades in their annual *State of the World* report. In the 2001 report, the concluding article observes: “Despite abundant information about our environmental impact, human activities continue to scalp whole forests, drain rivers dry, prune the Tree of Evolution, raise the level of the seven seas, and reshape climate patterns. And the toll on people and the natural environment and social systems feed on each other.”⁸

There is also a dawning realization that the changes we are currently making to planetary systems are comparable to the changes of a major geological era. Indeed, some have said we are closing down life systems on the planet and causing species extinction at such a rate as to mark the end of the Cenozoic era.⁹ Others compare the current rate of extinction to earlier geological periods such as the Jurassic (138 million years before the present) and the Permian (245 mybp). While this stark picture of the state of the environment has created pessimism among many and denial among others, it is also increasingly evident that human decisions will be crucial for the survival of many life forms on Earth. The long-term health of both people and the planet is in the balance. As ecosystems deteriorate, as global warming increases, as economic growth proceeds without restraint, technical solutions alone will be insufficient to stem the unraveling of the web of life. Some would say pessimistically, “If current trends continue, we will not.”¹⁰ Peter

Ravens of the Missouri Botanical Garden puts it more starkly in an article entitled "We Are Killing Our World." He writes, "The world that provides our evolutionary and ecological context is in serious trouble, trouble of a kind that demands our urgent attention. By formulating adequate plans for dealing with these large-scale problems, we will be laying the foundation for peace and prosperity in the future; by ignoring them, drifting passively while attending to what may seem more urgent personal priorities, we are courting disaster."

The scientist Brian Swimme has indicated that we are making macrophase changes to the planet with microphase wisdom. As Michael McElroy observes, the deleterious consequences of the last two hundred years of the industrial revolution have been monumental for the life systems of the planet. In short, our intervention in ecological systems can now be regarded as a primary determining factor in the future of evolutionary processes. Whether our interventions will ultimately be beneficial or detrimental remains to be seen as we are poised at a critical juncture in the unfolding journey of the earth community. We need to reexamine the nature of progress and development and ask at what cost we continue to destroy the earth's complex ecosystems. A central question before us is what are appropriate roles for humans in relation to present and future life on Earth? As Donald Brown asks, what are the responsibilities of the rich to the poor as ecological conditions deteriorate due to climate change? What does it mean to develop ethical sensibilities to people and species at a distance? What will it mean if twenty-three island nations disappear due to climate change or if Bangladesh, with one hundred million people, is flooded? Do we in fact have obligations to future generations that may transcend our contemporary concerns? One might well ask, if we are not able to encourage the flourishing of life on the planet, are we not then calling into question the very nature of what it is to be human? Or, as Thomas Berry puts it, is it we ourselves who are becoming an endangered species? He notes that while we have developed ethics for homicide, suicide, and genocide, we have yet to articulate a comprehensive ethics for biocide or geocide. In response to these kinds of questions, the authors in this issue reflect on how we might reconceive our

role in light of the world's religions to foster mutually enhancing human-Earth relations.

SIXTH EXTINCTION AND TRANSFORMATIVE BOUNDARIES

We are entering the twenty-first century with a new sense of humility at what humans have wrought as well as with a renewed sense of hope at what we might still achieve. A plaque in the Hall of Biodiversity at the American Museum of Natural History in New York City suggests that we are in the midst of a sixth extinction period for which human activities are largely responsible. Yet it also notes that, depending on our choices, we are still capable of stemming this massive destruction of life forms. It is this critical juncture we are facing between pursuing unbridled "progress" and reconfiguring the relation of economy and ecology for a sustainable future. This constitutes the potential for new transformative boundaries. A major question we confront is: What are the appropriate boundaries for the protection and use of nature? The choices will not be easy as we begin to reassess our sense of rights and responsibilities to present and future generations, and to reevaluate appropriate needs and overextended greed regarding natural resources.

This reevaluation of transformative boundaries has been set in motion by a number of key sectors ranging from grassroots and nongovernmental organizations to national governments and the United Nations. The convergence of efforts fostered by civil society, the nation-states, and international organizations is noteworthy. Business, too, is beginning to play an important role in developing principles and practices for environmentally sensitive cost accounting.¹¹ For the first time in human history remarkable new initiatives are emerging that struggle to restrain our overextended presence on the planet. The results of these initiatives will be difficult to evaluate immediately, but their cumulative effect will be indispensable in redirecting our current destructive course. Indeed, some have suggested that we are in a new phase of cultural evolution now surpassing biological evolution where human decisions will shape the course of planetary history as was never before possible.¹² This movement toward sustainable human-Earth relations is being led by

individuals and organizations who are developing and implementing alternative energy sources, environmentally compatible technologies and designs, green economic and business systems, sustainable agriculture and fishing initiatives, and environmental education programs.¹³ These creative movements are not simply technologically driven but are guided by an understanding of identifying principles and practices that promote the flourishing of the earth community as a whole.

Further evidence of this movement toward a sustainable future has emerged over the last decade with the wide range of international and national conferences that are being held, research that is being published, and policies that are being implemented. Indeed, in the decades since the United Nations Conference on the Environment was held in Stockholm in 1972 and the UN Conference on Environment and Development (also known as the Earth Summit) was convened in Rio in 1992, the United Nations has repeatedly identified the environmental crisis as a critical global challenge. This international political body has highlighted “sustainable development” as a central goal of the earth community. The 1987 Bruntland Commission report, *Our Common Future*, outlined key strategies toward that end. Since the Rio Earth Summit, the United Nations has held various other major international conferences to analyze our global situation and devise strategies for ensuring a sustainable future. These include conferences on social development, habitat, women, population, and food. These UN conferences have been supplemented by the work of literally thousands of nongovernmental and environmental organizations around the world toward formulating more sustainable and just policies and programs for civil society.

Sustainable development has been critiqued by some environmental, labor, and human-rights organizations as often leading toward rampant globalization of capital and the homogenization of cultures. The unintended consequences of globalization in the loss of habitat, species, and cultures make it clear that new forms of equitable distribution of wealth and resources need to be implemented. Indeed, the growing inequities of North and South that are exacerbated by environmental deterioration and climate change remain a leading challenge to the global

community. One significant effort to address this growing inequality around issues of sustainable development is the Earth Charter, which arose out of the 1992 Earth Summit in Rio.¹⁴ The charter was commissioned by the Earth Council, which was established in Costa Rica to carry out the directives of the Earth Summit. The Earth Charter consists of sixteen key principles under four headings: respect and care for the community of life; ecological integrity; social and economic justice; and democracy, nonviolence, and peace. The charter was drafted over a three-year period and subject to intensive review from grassroots organizations and NGOs, international business groups and religious communities. The charter was formally presented to the international community at the Peace Palace in the Hague on June 29, 2000. The intention of the Earth Charter Initiative is to bring the charter to the United Nations General Assembly for endorsement in the year 2002, the tenth anniversary of the Rio Earth Summit.

CALL FOR THE PARTICIPATION OF RELIGIOUS COMMUNITIES

Many organizations and individuals have been calling for greater participation by various religious communities in meeting the growing environmental crisis by reorienting humans to show more respect, restraint, and responsibility toward the earth community. Consider, for example, a statement by scientists, "Preserving and Cherishing the Earth: An Appeal for Joint Commitment in Science and Religion," issued at a Global Forum meeting in Moscow in January of 1990. It suggests that the human community is committing "crimes against creation" and notes that "problems of such magnitude, and solutions demanding so broad a perspective, must be recognized from the outset as having a religious as well as a scientific dimension. Mindful of our common responsibility, we scientists—many of us long engaged in combating the environmental crisis—urgently appeal to the world religious community to commit, in word and deed, and as boldly as is required, to preserve the environment of the Earth." It goes on to declare that "the environmental crisis requires radical changes not only in public policy, but in individual behavior. The historical record makes clear that

religious teaching, example, and leadership are powerfully able to influence personal conduct and commitment. As scientists, many of us have had profound 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 need to be infused with a vision of the sacred.”¹⁵

A second important document, “World Scientists’ Warning to Humanity,” was produced by the Union of Concerned Scientists in 1992 and was signed by more than two thousand scientists, including more than two hundred Nobel Laureates. This document also suggests that the planet is facing a severe environmental crisis: “Human beings and the natural world are on a collision course. . . . Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about.”

These changes will require the special assistance and commitment of those in the religious community. Indeed, the document calls for the cooperation of natural and social scientists, business and industrial leaders—and also religious leaders. It concludes with a call for environmentally sensitive attitudes and behaviors, which religious communities can help to articulate: “A new ethic is required—a new attitude towards discharging our responsibilities for caring for ourselves and for the earth. We must recognize the earth’s limited capacity to provide for us. We must recognize its fragility. We must no longer allow it to be ravaged. This ethic must motivate a great movement, convincing reluctant leaders and reluctant governments and reluctant peoples themselves to effect the needed changes.”¹⁶

RESPONSES FROM THE WORLD’S RELIGIONS

Although the responses of religions to the global environmental crisis were slow at first, they have been steadily growing over

the last twenty-five years. Several years after the first UN Conference on Environment and Development in Stockholm in 1972, some Christian churches began to address growing environmental and social challenges. At the fifth Assembly of the World Council of Churches (WCC) in Nairobi in 1975, there was a call to establish the conditions for a “just, participatory, and sustainable [global] society.” In 1979, a follow-up WCC conference was held at Massachusetts Institute of Technology on “Faith, Science, and the Future.”¹⁷ The 1983 Vancouver Assembly of the WCC revised the theme of the Nairobi conference to include “Justice, Peace, and the Integrity of Creation.” The 1991 WCC Canberra conference expanded on these ideas with the theme of the “Holy Spirit Renewing the Whole of Creation.” After Canberra, the WCC theme for mission in society became “Theology of Life.” This has brought theological reflection to bear on environmental destruction and social inequities resulting from economic globalization. In 1992, at the time of the UN Earth Summit in Rio, the WCC facilitated a gathering of Christian leaders that issued a “Letter to the Churches,” calling for attention to pressing eco-justice concerns: solidarity with other people and all creatures; ecological sustainability; sufficiency as a standard of distributive justice; and socially just participation in decisions for the common good.¹⁸

In addition to major conferences held by the Christian churches, several interreligious meetings have been held, and various religious movements have emerged concerning the environment. Some of these include the interreligious gatherings on the environment in Assisi in 1984 under the sponsorship of the World Wildlife Fund (WWF) and under the auspices of the Vatican in 1986. Moreover, the United Nations Environment Programme (UNEP) has established an Interfaith Partnership for the Environment (IPE) that has distributed thousands of packets of materials for use in local congregations and religious communities for more than fifteen years.¹⁹

The two most recent Parliaments of World Religions—held in Chicago in 1993, and in Cape Town, South Africa, in 1999—both issued major statements on global ethics, stressing environmental issues as well as human rights. The Global Forum of

Spiritual and Parliamentary Leaders held international meetings in Oxford in 1988, Moscow in 1990, Rio in 1992, and Kyoto in 1993—and each time devoted significant attention to environmental issues. Since 1995 a critical Alliance of Religion and Conservation (ARC) has been active in England, while the National Religious Partnership for the Environment (NRPE) has organized Jewish and Christian groups around this issue in the United States. Two member groups of NRPE, the Coalition on Environment and Jewish Life (COEJL) and the National Council of Churches, are helping to mobilize the American Jewish and Christian communities regarding environmental issues, especially global warming. Religious groups have also contributed over the last five years to the drafting of the Earth Charter. And the World Bank has developed a World Faiths Development Dialogue on poverty and development issues with a select group of international religious leaders.²⁰

Religious leaders and laypersons are increasingly speaking out for protection of the environment. The Dalai Lama has made numerous statements on the importance of environmental protection and has proposed that Tibet should be designated a zone of special ecological integrity. Rabbi Ishmar Schorsch of the Jewish Theological Seminary in New York has frequently spoken on the critical state of the environment. The Greek Orthodox Patriarch Bartholomew has sponsored several seminars to highlight environmental destruction in the Black Sea and along the Danube River,²¹ calling such examples of negligence “ecological sin.” From the Islamic perspective, Seyyed Hossein Nasr has written and spoken widely on the sacred nature of the environment for more than three decades. In the Christian world, along with the efforts of the Protestant community, the Catholic Church has issued several important pastoral letters over the last decade. Pope John Paul II wrote a message for the World Day of Peace, on January 1, 1990, entitled “The Ecological Crisis: A Common Responsibility.” More recently, John Paul II has spoken of the need for ecological conversion, namely, a deep turning to the needs of the larger community of life.²² In August of 2000, at a historic gathering of more than one thousand religious leaders at the UN for the

Millennium World Peace Summit of Religious and Spiritual Leaders, the environment was a major topic of discussion. The UN secretary-general, Kofi Annan, called for a new ethic of global stewardship, recognizing the urgent situation posed by current unsustainable trends.²³

RELIGIONS OF THE WORLD AND ECOLOGY PROJECT

It was in light of these various initiatives that a three-year intensive conference series, entitled “Religions of the World and Ecology,” was organized at the Center for the Study of World Religions at Harvard Divinity School to examine the varied ways in which human-Earth relations have been conceived in the world’s religious traditions. From 1996–1998 the series of ten conferences examined the traditions of Judaism, Christianity, Islam, Hinduism, Jainism, Buddhism, Daoism, Confucianism, Shinto, and indigenous religions. The conferences, organized by Mary Evelyn Tucker and John Grim in collaboration with a team of area specialists, brought together over seven hundred international scholars of the world’s religions as well as environmental activists and grassroots leaders. Recognizing that religions are key shapers of people’s worldviews and formulators of their most cherished values, this broad research project informs many of the essays gathered in this issue of *Dædalus*.

Since 1998, an ongoing Forum on Religion and Ecology has been organized to continue the research, education, and outreach begun at these earlier conferences. A primary goal of the forum is to help to establish a field of study in religion and ecology that has implications for public policy. The forum is involved in holding scholarly conferences as well as initiating workshops for high-school teachers, distributing curricular resources for college courses, supporting a journal on religion and ecology,²⁴ and creating a comprehensive web site (<http://environment.harvard.edu/religion>).

Just as religions played an important role in creating sociopolitical changes in the twentieth century (e.g., human and civil rights), so now religions are poised in the twenty-first

century to contribute to the emergence of a broader environmental ethics based on diverse sensibilities regarding the sacred dimensions of the natural world.

DEFINING TERMS: RELIGION AND ECOLOGY

Religion is more than simply a belief in a transcendent deity or a means to an afterlife. It is, rather, an orientation to the cosmos and our role in it. We understand religion in its broadest sense as a means whereby humans, recognizing the limitations of phenomenal reality, undertake specific practices to effect self-transformation and community cohesion within a cosmological context. Religion thus refers to those cosmological stories, symbol systems, ritual practices, ethical norms, historical processes, and institutional structures that transmit a view of the human as embedded in a world of meaning and responsibility, transformation and celebration. Religion connects humans with a divine or numinous presence, with the human community, and with the broader earth community. It links humans to the larger matrix of mystery in which life arises, unfolds, and flourishes.

In this light nature is a revelatory context for orienting humans to abiding religious questions regarding the cosmological origins of the universe, the meaning of the emergence of life, and the responsible role of humans in relation to life processes. Religion thus situates humans in relation to both the natural and human worlds with regard to meaning and responsibility. At the same time, religion becomes a means of experiencing a sustaining creative force in the natural and human worlds and beyond. For some traditions this is a creator deity; for others it is a numinous presence in nature; for others it is the source of flourishing life.

This experience of a creative force gives rise to a human desire to enter into processes of transformation and celebration that link self, society, and cosmos. The individual is connected to the larger human community and to the macrocosm of the universe itself. The transformative impulse seeks relationality, intimacy, and communion with this numinous power. Individual

and communal transformations are expressed through rituals and ceremonies of celebration. More specifically, these transformations have the capacity to embrace the celebration of natural seasonal cycles as well as various cultural rites of passage. Religion thus links humanity to the rhythms of nature through the use of symbols and rituals that help to establish moral relationships and patterns for social exchange.

The issues discussed here are complex and involve various peoples, cultures, worldviews, and academic disciplines. Therefore, it is important to be clear about our terms. As it is used here, the term “ecology” locates the human within the horizon of emergent, interdependent life rather than viewing humanity as the vanguard of evolution, the exclusive fabricator of technology, or a species apart from nature. “Scientific ecology” is a term used to indicate the empirical and experimental study of the relations between living and nonliving organisms within their ecosystems. While drawing on the scientific understanding of interrelationships in nature, we are introducing the term “religious ecology” to point toward a cultural awareness of kinship with and dependence on nature for the continuity of all life. Thus, religious ecology provides a basis for exploring diverse cultural responses to the varied earth processes of transformation. In addition, the study of religious ecology can give us insight into how particular environments have influenced the development of cultures. Therefore, one can distinguish religious ecology from scientific ecology just as one can distinguish religious cosmology from scientific cosmology.

This awareness of the interdependence of life in religious ecology finds expression in the religious traditions as a sacred reality that is often recognized as a creative manifestation, a pervasive sustaining presence, a vital power in the natural world, or an emptiness (*sunyata*) leading to the realization of interbeing.²⁵ For many religions, the natural world is understood as a source of teaching, guidance, visionary inspiration, revelation, or power. At the same time, nature is also a source of food, clothing, and shelter. Thus, religions have developed intricate systems of exchange and thanksgiving around human dependence on animals and plants, on forests and fields, on

rivers and oceans. These encompass symbolic and ritual exchanges that frequently embody agricultural processes, ecological knowledge of ecosystems, or hunting practices.²⁶

The study of religion and ecology explores the many ways in which religious communities ritually articulate relationships with their local landscapes and bioregions. Religious ecology gives insight into how people and cultures create both symbolic systems of human-Earth relations and practical means of sustaining and implementing these relations.

METHODOLOGICAL APPROACHES TO THE STUDY OF RELIGION AND ECOLOGY

There is an inevitable disjunction between the examination of historical religious traditions in all of their diversity and complexity and the application of teachings or scriptures to contemporary situations. While religions have always been involved in meeting contemporary challenges over the centuries, it is clear that the global environmental crisis is larger and more complex than anything in recorded human history. Thus, a simple application of traditional ideas to contemporary problems is unlikely to be either possible or adequate. In order to address ecological problems properly, religious leaders and laypersons have to be in dialogue with environmentalists, scientists, economists, businesspeople, politicians, and educators.

With these qualifications in mind we can then identify three methodological approaches that appear in the emerging study of religion and ecology: retrieval, reevaluation, and reconstruction. Each of these methodological approaches is represented in the essays included in this volume.

Interpretive retrieval involves the scholarly investigation of cosmological, scriptural, and legal sources in order to clarify traditional religious teachings regarding human-Earth relations. This requires that historical and textual studies uncover resources latent within the tradition. In addition, interpretive retrieval can identify ethical codes and ritual customs of the tradition in order to discover how these teachings were put into practice.

In interpretive reevaluation, traditional teachings are evaluated with regard to their relevance to contemporary circumstances. Can the ideas, teachings, or ethics present in these traditions be adopted by contemporary scholars or practitioners who wish to help shape more ecologically sensitive attitudes and sustainable practices? Reevaluation also questions ideas that may lead to inappropriate environmental practices. For example, are certain religious tendencies reflective of otherworldly or world-denying orientations that are not helpful in relation to pressing ecological issues? It asks as well whether the material world of nature has been devalued by a particular religion and whether a model of ethics focusing solely on human interaction is adequate to address environmental problems.

Finally, interpretive reconstruction suggests ways that religious traditions might adapt their teachings to current circumstances in new and creative ways. This may result in a new synthesis or in a creative modification of traditional ideas and practices to suit modern modes of expression. This is the most challenging aspect of the emerging field of religion and ecology and requires sensitivity to who is speaking about a tradition in the process of reevaluation and reconstruction. Postcolonial critics have appropriately highlighted the complex issues surrounding the problem of who is representing or interpreting a tradition. Nonetheless, practitioners and leaders of particular traditions may find grounds for creative dialogue with scholars of religious traditions in these various phases of interpretation.

DIVERSITY AND DIALOGUE OF RELIGIONS

The diversity of the world's religions may seem self-evident to some, but it is worth stressing the differences within and between religious traditions. At the same time, it is possible to posit shared dimensions of religions in light of this diversity, without arguing that the world's religions have some single emergent goal. The world's religions are inherently distinctive in their expressions, and these differences are especially significant in regard to the study of religion and ecology.

Several sets of religious diversity can be identified as being integrally related. First, there is historical and cultural diversity within and between religious traditions as expressed over time in varied social contexts. For example, we need to be sensitive to the variations in Judaism between Orthodox, Conservative, and Reform movements, in Christianity between Catholic, Orthodox, and Protestant varieties of the tradition, and in Islam between Sunni and Shiite positions.

Second, there is dialogical and syncretic diversity within and between religions traditions, which adds another level of complexity. Dialogue and interaction between traditions engenders the fusion of religious traditions into one another, often resulting in new forms of religious expression that can be described as syncretic. Such syncretism occurred when Christian missionaries evangelized indigenous peoples in the Americas. In East Asia there is an ongoing dialogue between and among Confucianism, Daoism, and Buddhism that results in various kinds of syncretism.²⁷

Third, there is ecological and cosmological diversity within and between religions. Ecological diversity is evident in the varied environmental contexts and bioregions where religions have developed over time. For example, Jerusalem is the center of a sacred bioregion where three religious traditions—Judaism, Christianity, and Islam—have both shaped and been shaped by the environment. These complex interactions illustrate that religions are not static in their impacts on ecology. Indeed, throughout history the relationships between religions and their natural settings have been fluid and manifold.

Religious traditions develop unique narratives, symbols, and rituals to express their relationships with the cosmos as well as with various local landscapes. For example, the body is a vital metaphor for understanding the Daoist relationship with the world: as an energetic network of breathings-in and breathings-out, the body, according to Daoism, expresses the basic pattern of the cosmos. Another example, from Buddhism, of a distinctive ecological understanding involves Doi Suthep, a sacred mountain in the Chiang Mai valley of northern Thailand: the ancient Thai reverence for the mountain is understood as analogous to respect for the Buddhist reliquary, or stupa.

CONVERGING PERSPECTIVES: COMMON VALUES
FOR THE EARTH COMMUNITY

This project of exploring world religions and ecology may lead toward convergence on several overarching principles. As many of the essays illustrate, the common values that most of the world's religions hold in relation to the natural world might be summarized as reverence, respect, restraint, redistribution, and responsibility. While there are clearly variations of interpretation within and between religions regarding these five principles, it may be said that religions are moving toward an expanded understanding of their cosmological orientations and ethical obligations. Although these principles have been previously understood primarily with regard to relations toward other humans, the challenge now is to extend them to the natural world. As this shift occurs—and there are signs it is already happening—religions can advocate reverence for the earth and its profound cosmological processes, respect for the earth's myriad species, an extension of ethics to include all life forms, restraint in the use of natural resources combined with support for effective alternative technologies, equitable redistribution of wealth, and the acknowledgement of human responsibility in regard to the continuity of life and the ecosystems that support life.

Just as religious values needed to be identified, so, too, the values embedded in science, education, economics, and public policy also need to be more carefully understood. Scientific analysis will be critical to understanding nature's economy; education will be indispensable to creating sustainable modes of life; economic incentives will be central to an equitable distribution of resources; public-policy recommendations will be invaluable in shaping national and international priorities. But the ethical values that inform modern science and public policy must not be uncritically applied. Instead, by carefully evaluating the intellectual resources both of the world's religions and of modern science and public policy, our long-term ecological prospects may emerge. We need to examine the tensions between efficiency and equity, between profit and preservation, and between the private and public good. We

need to make distinctions between human need and greed, between the use and abuse of nature, and between the intrinsic value and instrumental value of nature. We need to move from destructive to constructive modes of production, and from the accumulation of goods to an appreciation for the common good of the earth community.

As Thomas Berry has observed: “The ethical does not simply apply to human beings but to the total community of existence as well. The integral economic community includes not only its human components but also its natural components. To assist the human by deteriorating the natural cannot lead to a sustainable community. The only sustainable community is one that fits the human economy into the ever-renewing ecosystems of the planet.”²⁸

This issue of *Dædalus* is dedicated, then, to exploring the ways in which the world’s religions can contribute to ensuring the continuity of the earth community, especially in light of the challenge of global climate change. It is intended as a mapping of the contours of possibility that invites further discussion, reflection, and—inevitably—action.

ENDNOTES

¹It is important to note that the most recent Intergovernmental Panel on Climate Change (IPCC) report noted that climate change is a serious global problem that requires the efforts of the international community to mitigate its growing effects. This report has been endorsed by the National Academies of Sciences of Australia, Belgium, Brazil, Canada, the Caribbean, China, France, Germany, India, Indonesia, Ireland, Italy, Malaysia, New Zealand, Sweden, Turkey, the United Kingdom, and the United States. See <<http://www.ipcc.ch>>.

²Bill McKibben, *The End of Nature* (New York: Random House, 1989; 2d ed. New York: Anchor Books, 1999).

³Lester R. Brown, “Challenges of the New Century,” in The Worldwatch Institute, *State of the World 2000* (New York: Norton, 2000), 20.

⁴The movement, which began in Britain, has had demonstrable influence on the decisions of the World Bank and other lending organizations to reduce or forgive debts in more than twenty countries. See <<http://www.jubilee2000uk.org>>.

⁵Lynn White, Jr., “The Historical Roots of Our Ecologic Crisis,” *Science* 155 (10 March 1967): 1204.

- ⁶For more information on the conference series, see <<http://www.hds.harvard.edu/cswr/ecology>>.
- ⁷*Buddhism and Ecology* (1997), *Confucianism and Ecology* (1998), *Hinduism and Ecology* (2000), *Christianity and Ecology* (2000), *Indigenous Traditions and Ecology* (2001), and *Daoism and Ecology* (2001). Forthcoming are volumes on Judaism, Islam, Jainism, and Shinto. All are published by the Center for the Study of World Religions at Harvard Divinity School and distributed by Harvard University Press, 1-800-448-2242.
- ⁸The Worldwatch Institute, *State of the World 2001* (New York: Norton, 2001), 190.
- ⁹Thomas Berry, *The Great Work* (New York: Bell Towers/Random House, 1999). See also Niles Eldredge, *Life in the Balance: Humanity and the Biodiversity Crisis* (Princeton: Princeton University Press, 1998), and Marjorie Reaka-Kudla, Don Wilson, and Edward O. Wilson, *Biodiversity II: Understanding and Protecting our Biological Resources* (Washington, D.C.: Joseph Henry Press, 1997).
- ¹⁰See Daniel Maguire, *The Moral Core of Judaism and Christianity: Reclaiming the Revolution* (Philadelphia: Fortress Press, 1993), 13.
- ¹¹See Robert Massie's work with the Coalition for Environmentally Responsible Economies (CERES) and the work of Herman Daly and Robert Costanza on ecological economics.
- ¹²Paul Erlich, *Human Natures* (Washington, D.C.: Island Press, 2001). See his last chapter on "Evolution and Human Values." Gary Gardner, in the concluding article, "Accelerating the Shift to Sustainability," in *State of the World 2001*, writes, "The question facing this generation is whether the human community will take charge of its own cultural evolution and implement a rational shift to sustainable economies, or will instead stand by watching nature impose change as environmental systems break down." Gardner, "Accelerating the Shift to Sustainability," 190.
- ¹³There are numerous examples of these efforts: Amory and Hunter Lovins for alternative energy, John and Nancy Todd and William McDonough for ecological technology and design, Herman Daly and Robert Costanza for ecological economics, Wes Jackson and Wendell Berry for sustainable agriculture, David Orr and Anthony Cortese for environmental education.
- ¹⁴<<http://www.earthcharter.org>>.
- ¹⁵"Preserving and Cherishing the Earth: An Appeal for Joint Commitment in Science and Religion," 1990.
- ¹⁶"World Scientists' Warning to Humanity," Union of Concerned Scientists, 1992.
- ¹⁷See preparatory readings for the conference in Paul Abrecht, ed., *Faith, Science, and the Future* (Geneva: World Council of Churches, 1978). For Christian ethical reflections from this period see Roger Shinn, *Forced Options: Social Decisions for the 21st Century* (San Francisco: Harper and Row, 1982).

- ¹⁸See Wesley Granberg-Michaelson, *Redeeming the Creation: The Rio Earth Summit: Challenges for the Churches* (Geneva: World Council of Churches Publications, 1992). For further background on the role of the WCC see Dieter Hessel, *Theology and Public Policy*, vol. 7, bk. 1 (Washington, D.C.: Churches' Center for Theology and Public Policy, 1995). We are indebted to him for his suggestions for this paragraph on the role of the WCC.
- ¹⁹See especially the booklet *Earth and Faith* published by UNEP in 2000 and available from uneprona@un.org or by telephone at (212) 963-8210. In June of 2001, UNEP also organized the Tehran Seminar with the Islamic Republic of Iran on "Religion, Culture, and the Environment."
- ²⁰<<http://www.wfdd.org.uk>>.
- ²¹See the account of the extension of this work in John Chryssavgis, "The Halki Ecological Institute: Religion, Science, and the Environment," *Worldviews: Environment, Culture, Religion* 3 (3) (December 1999): 273–278.
- ²²In 1988 the Catholic Bishops of the Philippines issued a letter entitled "What is Happening to Our Beautiful Land," and in 1990 the U.S. Catholic Bishops published a statement called "Renewing the Earth." In 2000 the Boston Bishops wrote a pastoral letter entitled "And God Saw That it Was Good," and in February of 2001 the Bishops of the Pacific Northwest published "The Columbia Watershed: Caring for Creation and the Common Good." In June of 2001 the U.S. Catholic Bishops issued a letter called "Global Climate Change: A Plea for Dialogue, Prudence, and the Common Good."
- ²³See Kofi Annan, "Sustainable Development: Humanity's Biggest Challenge in the New Century" (statement read at UN International Conference Center, Dhaka, Bangladesh, 14 March 2001).
- ²⁴The journal is entitled *Worldviews: Environment, Culture, Religion* and is published by Brill Academic Publishers.
- ²⁵The term "interbeing" is used in the writings of the Vietnamese monk Thich Nhat Hanh.
- ²⁶See Eugene N. Anderson, *Ecologies of the Heart: Emotion, Belief, and the Environment* (New York and Oxford: Oxford University Press, 1996) and John A. Grim, ed., *Indigenous Traditions and Ecology: The Interbeing of Cosmology and Community* (Cambridge, Mass.: Center for the Study of World Religions, Harvard Divinity School, 2001).
- ²⁷See Judith A. Berling, *The Syncretic Religion of Lin Chao-en* (New York: Columbia University Press, 1980).
- ²⁸Thomas Berry, "Transforming Economic Myths," unpublished manuscript.