BERKSHIRE ENCYCLOPEDIA OF SUSTAINABILITY

Volume 1

THE SPIRIT OF SUSTAINABILITY
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A Project of the Forum on Religion and Ecology
The Spirit of Sustainability was developed under the auspices of the Forum on Religion and Ecology (FORE) at Yale University, the largest international multireligious project of its kind. We are especially indebted to Forum coordinators (and Spirit of Sustainability contributors) Mary Evelyn Tucker and John Grim.

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Yale Divinity School

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Aderibigbe, Ibigbolade S.
University of Georgia
Indigenous Traditions—Africa

Ahmed, A. Karim
National Council for Science and the Environment
Precautionary Principle

Allison, Elizabeth A.
University of California, Berkeley
Biodiversity
Forests

Anderson, E. N.
University of California, Riverside
Indigenous Traditions—Asia

Azaransky, Sarah
University of San Diego
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Politics

B

Barnhill, David Landis
University of Wisconsin, Oshkosh
Ecology, Deep
Ecology, Social

Bassett, Luke H.
Yale Divinity School
Ecovillages

Baugh, Tom
Independent scholar, Hidden Springs, North Carolina
Conservation Biology

Bauman, Whitney
Florida International University
Ecocentrism (co-author: Jenkins, Willis)
Ecological Footprint
Sikhism
White's Thesis

Bendik-Keymer, Jeremy
LeMoyne College
Development—Concepts and Considerations

Benzoni, Francisco
U.S. Fourth Circuit Court of Appeals
Utilitarianism

Berkes, Fikret
University of Manitoba
Indigenous Traditions—The Arctic

Bohannon, Richard
College of St. Benedict and St. John's University
Architecture
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Bratton, Susan Power
Baylor University
Stewardship (co-author: Cook-Lindsay, Austin)
Bromberg, Gidon
EcoPeace / Friends of the Earth Middle East
*Jordan River Project*

Brown, Donald A.
Pennsylvania State University
*Climate Change*
*Ethics, Global*

C

Cannon, Jonathan Z.
University of Virginia School of Law
*Law*

Carpenter, Carol
Yale University
*Ecology, Cultural* (co-author: Dove, Michael)

Chapple, Christopher Key
Loyola Marymount University
*Hinduism*
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*Sacrifice*

Chryssavgis, John
Greek Orthodox Archdiocese of America
*Christianity—Eastern Orthodox*

Clark, Meghan
Saint Anselm College
*Community*

Clingerman, Forrest
Ohio Northern University
*Sacred Texts*
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Conradie, Ernst M.
University of the Western Cape
*Christianity—Mainline Protestant*

Cook-Lindsay, Austin
Baylor University
*Stewardship* (co-author: Bratton, Susan Power)

Curtin, Deane
Gustavus Adolphus College
*Nonviolence*

D

Davison, Aidan
University of Tasmania
*Technology*

De Gruchy, Steve
University of KwaZulu-Natal
*Development, Sustainable*

Deane-Drummond, Celia
University of Chester
*Wisdom Traditions*

Denny, Frederick Mathewson
University of Colorado at Boulder, emeritus
*Islam*

Dove, Michael
Yale University
*Ecology, Cultural* (co-author: Carpenter, Carol)

E

Eaton, Heather
Saint Paul University
*Feminist Thought*

Eisenbise, Kathryn S.
Manchester College
*Christianity—Anabaptist*
F

Fagg, Lawrence W.
Catholic University of America
Time

Figueroa, Robert Melchior
University of North Texas
Ecology, Political
Racism

Fredericks, Sarah E.
University of North Texas
Agenda 21
Energy
Millennium Development Goals

Freyfogle, Eric T.
University of Illinois College of Law
Conservation

G

Globus, Robin
University of Florida
New Age Spirituality

Gonzales, Tirso
University of British Columbia Okanagan
Indigenous Traditions—South America (co-author: Gonzalez, Maria E.)

Gonzalez, Maria E.
University of Michigan
Indigenous Traditions—South America (co-author: Gonzales, Tirso)

Gorman, Antonia
Humane Society of the United States
Creation
Eschatology

Gorringle, T. J.
University of Exeter
Culture

Gottlieb, Roger S.
Worcester Polytechnic Institute
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Harris, Adrian
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Augustana College (Illinois)  
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Harvey, Graham  
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Drew University  
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Hobgood-Oster, Laura  
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Holthaus, Gary  
Island Institute; The Atheneum School  
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James, George A.  
University of North Texas  
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Jantzi, Terrence  
Eastern Mennonite University  
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Kearns, Laurel D.  
Drew Theological School and University  
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Kirk-Duggan, Cheryl A.  
Shaw University Divinity School  
African Diasporan Religions

Kishbaugh, Aaron  
Independent scholar, Singers Glen, Virginia  
Peace (co-author: Jantzi, Terrence)
Kover, T. R.
Katholieke Universiteit Leuven
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MacDonald, Mary N.
Le Moyne College
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University of Vermont
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Luther College
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Mathewes, Charles
University of Virginia
God (co-author: Wayner, Chad)

Mathews, Freya
La Trobe University
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McAnally, Elizabeth
California Institute of Integral Studies
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McDaniel, Jay
Hendrix College
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Mickey, Sam
California Institute of Integral Studies
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Kansai University
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University of Leeds
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Mukonyora, Isabel
Western Kentucky University
Green Belt Movement

Nelson, Melissa
San Francisco State University
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Newman, Julie
Yale University
Education

Norgaard, Richard
University of California, Berkeley
Economics

O’Brien, Kevin J.
Pacific Lutheran University
Ecology
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Northern Arizona University
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University of London
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Macquarie University
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University of Chicago Divinity School
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University of Guam
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Indiana University
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Simmons, Frederick
Yale Divinity School
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Sims, Michael D.
Independent scholar, Eugene, Oregon
Waste

Smith, David H.
Yale University
Bioethics
Spretnak, Charlene  
California Institute of Integral Studies  
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Thompson, Paul B.  
Michigan State University  
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Tyman, Shannon  
University of Oregon  
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Van Saanen, Marisa B.  
Yale Law School  
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Van Wensveen, Louke  
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Yale University  
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Wallis, Robert  
Richmond the American International University in London  
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Wayner, Chad  
University of Virginia  
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Winter, Miriam Therese  
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Wirzba, Norman  
Duke Divinity School  
Agrarianism

Wissenburg, Marcel  
Radboud University Nijmegen  
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Worthy, Kenneth  
Independent scholar, Berkeley, California  
Ecopsychology
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- Volume 2: The Business of Sustainability
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- Volume 4: Natural Resources and Sustainability
- Volume 5: Ecosystems Management and Sustainability
- Volume 6: Measurements, Indicators, and Research Methods for Sustainability
- Volume 7: China and India: Assessing Sustainability
- Volume 8: The Americas and Oceania: Assessing Sustainability
- Volume 9: Afro-Eurasia: Assessing Sustainability
- Volume 10: The Future of Sustainability
This volume, The Spirit of Sustainability, is the first of ten volumes making up The Berkshire Encyclopedia of Sustainability, an endeavor designed to bring together—in a format accessible to students and the general public—everything we need to know about environmental sustainability. The list of volume titles on the facing page reveals the broad scope of the project; expert contributors working in many academic and professional fields across the globe bring to the work a comparative, cross-cultural approach. In the introduction to this first volume its editor, Willis Jenkins, explores the religious, philosophical, and ethical dimensions of the environmental challenges we face as a global community. This preface by the publisher discusses how The Spirit of Sustainability came to be the first volume in the series, how we plan to cover topics in the encyclopedia at large, and why we at Berkshire Publishing happened to take on such an ambitious effort.

As well as being Berkshire’s founder and publisher, I am an environmental author (with titles ranging from the 1989 Home Ecology to my recent The Armchair Environmentalist). One of my priorities as a publisher has been to include environmental topics in all Berkshire publications—discussions of e-waste (in Human–Computer Interaction, for instance); an article about the environmental challenges posed by the 2008 Beijing Games (in China Gold, a book primarily devoted to Olympic history and China’s role in it, and to individual athletes and sporting events); and (in Libraria We Love), an article about a Seattle library with a “green roof” designed to grow grasses and sedum that help reduce rainwater runoff.

Our projects, which emphasize interdisciplinary scholarship and present subjects from diverse perspectives, commonly lead to synergistic new efforts. Through The Encyclopedia of World Environmental History, published by Berkshire in 2003, and by attending American Society for Environmental History conferences, we got to know a wide group of scholars whose focus on the environment often came from personal concern about the world today.

The idea to look at how religious and spiritual influence shaped attitudes and policies about the environment, both positive and negative, came to us early on. Many people in the Green movement speak of strong connections to the Earth as a single living organism; contemporary pagans’ sense of Earth as sacred, as well as their animist belief (“all that exists lives”), support an ethics of sustainability; indigenous peoples from the Arctic to the Andes have innately deep-seated bonds to their place on the land and in the universe, with cosmologies and creation myths deriving from an Earth Mother or other deities of nature—this is just a small sampling of traditions worldwide we knew we’d cover in this Spirit volume. Conservative Christianity in the United States, however, had long been known for its anti-environmentalist position. Despite (and perhaps because of) the huge controversy sparked by Lynn White’s 1967 declaration in “The Historical Origins of Our Environmental Crisis”—that Christianity not only established a dualism of man and nature but insisted that God wills man to exploit nature for his proper ends—the Christian Right’s position seemed alarmingly unshakable. (See the articles on “Dominion” and “White’s Thesis.”) But when leaders within mainstream churches began to consider new interpretations of the biblical admonition of stewardship, another topic we explore in this volume, shifting values over the next decades attracted the increasing attention of journalists. From about 2000 to 2006, Berkshire partnered with Routledge to produce a Religion & Society series, and we thus were attuned to how religious traditions and practices have developed within the context of a wider planetary or natural community. By the end of our collaboration with Routledge we had The Encyclopedia of Sustainability on our independent drawing board.
We realized that a series on environmental challenges—one that included perspectives from the worlds of business, law, politics, resource management, and research and measurement tactics, for instance—would not be complete without a volume on spiritual and religious traditions.

We then began a conversation with Mary Evelyn Tucker and John Grim, co-founders of the Forum on Religion and Ecology (FORE). (FORE originated at Harvard’s Center for the Study of World Religions; the United Nations officially announced its formation at a press conference in October 1998.) Located currently at Yale University, the Forum works with the faculties of the School of Forestry and Environmental Studies, the Divinity School, the Department of Religious Studies, and the Center for Bioethics. FORE’s network of scholars has been essential to the creation of this volume, and we hope the volume will be of value to the network.

In 2004 Berkshire Publishing distributed a survey among librarians; we asked them to tick off the subjects they’d most like see covered in newly published works. Our list was expansive—Asian studies; China/Chinese history and culture; environmental issues; international relations; Latino studies; personal relations and communications; primary text resources; religion and society; sports; technology and society; terrorism and global security; world history; world theater, dance, or music—and included a number of topics that coincided with Berkshire projects already or soon to be underway. Although the environment was not a “hot” topic at that point, the librarians put “environmental issues” at the top of list. I was surprised. A lot of reference material on environmental issues appeared to be quite good. Why then would librarians be asking for more?

I came to the conclusion that existing books often did a great job of explaining the problems—species loss, air pollution, climate change, toxic chemicals in our homes—but included very little about solutions. We needed to develop instead a project about solutions, about a green future.

But what to call it? Encyclopedias generally have boring titles, for good reason—titles should be solid, clear, unmistakable. An “Encyclopedia of Environmental Issues” would be the “right” title, it seemed. But that did not convey the spirit of the project.

The word “sustainability” came to mind. At first I dismissed it as too vague, too ephemeral, too much an insider term. But it shouldn’t be, I thought. Sustainability ought to be a concept everyone can grasp.

When no other sufficient title came to mind, we made our early announcements using The Berkshire Encyclopedia of Sustainability, and somehow it stuck despite concerns, questions, and comments from our widening network. Dan Vasey, one of the editors now working on Volume 4, expressed a worry echoed by others, that sustainability...
seems to mean entirely different things to different people. Some people asked whether the term was itself sustainable—meaning that ideas and terms sometimes surge then fade, and an encyclopedia should not peg itself to an idea that is not well established. Is “sustainability” a flash in the pan, they asked, an idea that will be seen as “so 2009”? Or is it a major societal shift, like the Industrial Revolution, that needs to be documented?

Dan also pointed out a fundamental problem inherent in the encyclopedia format, which “by segregating interconnected subjects,” he wrote, “makes sustainability look easier than it is. The concern extends to my own recent contribution, Agriculture. I tried to be holistic, and the word limits allowed me to consider population, urban sprawl, and phosphorus resources, but the best I could do on energy was to note reliance on fossil fuels and pressures from biofuel production. If I were to take total account of those and other trends and proposals—that we allocate generated power to run tractors and fertilizer factories; grow the cloth that now comes from petroleum; achieve consumer equity—and then draw a flow chart of competing resource demands, the result would look and sound less sanguine.”

Another editor, Peter Whitehouse, commented on the need to make connections from volume to volume: “In medicine there is a tendency to compartmentalize ethics and hence marginalize moral conversations. Business, like ethics, is a word signifying a set of concepts and practices. ‘Natural capitalism,’ for example, is only a start at looking how we account for the world’s resources. Developing ‘sustainable value’ is a key approach but the values underlying that creation are key in my view.”

Fortunately, our hundreds of authors seem now to agree that the term “sustainability” is sufficiently broad and inclusive, that it provides a way to measure change, and it makes connections between environmental issues and other global challenges.

By gathering the work of so many experts we also experienced something about how ideas go from being crazy to feasible, or from being farfetched to being commonly accepted. This shift is something blogs and newspaper articles can’t capture, but an encyclopedia can. In effect we are taking a wide-angle snapshot here of something in an almost continual state of change, but the big picture—the panoply of ideas evolving to meet a complex, fast-changing, far-ranging set of global issues—is one we clearly need to see. Otherwise it’s just too difficult for those working in one part of an environmental field (whether ecosystems management, urban design, or bioremediation of toxic waste) to make broad connections and forge new collaborations. Our aim is to make it easier for a high school teacher, a small town financial manager, or a global executive, for example, to get a handle on the issues most relevant to their work and to the students, citizens, shareholders, and customers for whom they are responsible.

**Designing Sustainability**

Observation of the natural world has always informed and contributed to human design and aesthetics, even in cases where designers have chosen to create forms deliberately and sometimes aggressively “against” nature. In the modern world, human designs—and here a darker, more calculated meaning can underlie that term—impact the sustainability of our environment through a variety of areas and fields: product design, building design, town and regional planning, manufacturing and data management systems, and more.

Two “design challenges” confronted us with this project. Thoughts about our coverage came first: how should we ensure that design innovation and the ramifications of industrial and product design were fully explored in our different volumes? Our “appearance” came next: what should an *Encyclopedia of Sustainability* look like? To our minds a print encyclopedia should be, in the words of William Morris, beautiful and useful. In other Berkshire encyclopedias we made photographs not only an essential element of the design but a supplementary teaching tool. For *Sustainability*, however, we were starting a series with one rather abstract subject, spirit, and two others, business and law, that don’t easily lend themselves to visual enhancement. Although we used twenty-one different photographic images—one per letter group of entries—to enhance the intellectual content of these first volumes. So we decided to use decorative elements with a “message.” Our inspiration came from scientific illustration, which, in the days before photography became mainstream, conveyed to the general public an essential part of the discoveries being made about the natural world. Scientists were artists and artists were scientists—seeing the world afresh in a concerted effort to understand it and to organize knowledge about it. (This is similar to what happened in anatomical...
studies: drawing the human body was an essential part of understanding how it worked.)

For *The Spirit of Sustainability* we chose natural history as our theme: drawings (of a beetle, dragonfly, moth, and ladybug) by Lydia Umney, as well as other illustrations (creatures of the air and flora) from the archives of the Library of Congress and the New York Public Library. Subsequent volumes will feature other illustrations on relevant themes. In the science and regional volumes we’ll turn to photographs more frequently, but readers can also access additional images and visual material online (www.thesustainabilityproject.com).

Our cover photograph by Carl Kurtz shows fireflies (*Pyractomena borealis*) on the Iowa prairie. We selected this image for *The Encyclopedia of Sustainability* because it so vividly presents the beauty of a restored habitat and because it speaks volumes about the rich life that exists on our planet. It also has symbolic resonance. The myriad points of light remind us that a sustainable future depends on sparks of inspiration, innovation, and insight from people around the world.

**Publishing Sustainably**

At Berkshire we always ask ourselves how we can run our business in a way that will help preserve and even restore the planet. Publishing an encyclopedia devoted entirely to the idea (and the practice) of sustainability makes the challenge even more immediate. Using a “green” printer like Thomson-Shore and choosing the right paper, as we did for the *Encyclopedia of China* (and are doing for the *Encyclopedia of Sustainability*), is only a first step. Submitting each volume for an Eco-Audit (on page XX) sponsored by The Green Press Initiative, a nonprofit organization with a mission to help those in the publishing industry conserve natural resources, is a second.

Many in the industry believe that depending more and more on the electronic world is a planet-friendly move. But reading and publishing online—as well as the virtually paperless editorial processes gradually adopted by sustainability-savvy publishers (Berkshire included)—are not carbon-free activities: data centers consume vast quantities of resources to keep the arrays of servers on which we depend running smoothly, twenty-four hours a day; e-waste and rare mineral extraction are other undesirable side effects of the paperless revolution. After chairing the first Green Data Centres conference in London in 2008, I came to realize that in some ways publishing on paper is a better choice than e-publishing. (We’re doing both, trying to improve and streamline our digital and our “hard-copy” procedures.) Books that last, because of the paper they are printed on and the words they contain, fulfill an important concept of sustainability—the production of quality goods with a long life. Berkshire hopes to offset its carbon footprint (at least somewhat) by the knowledge that readers gain from the pages herein.

Other factors besides the physical printing of books contribute significantly to the carbon footprint industry-wide—for one, the supply chain and shipping methods by which books get to distributors, and finally to customers, are extremely inefficient and costly. (Volume 2, *The Business of Sustainability*, offers a substantial contribution to this discussion.) We are learning about our subject as we live it, and have the privilege of doing so with an extraordinary roster of sustainability experts and professionals.

Karen Christensen
Great Barrington, Massachusetts
Religions, philosophies, and ethics have shaped the cultural worlds in which we live, and continue to construct how we interpret and respond to social problems. The social and ecological imperatives of sustainability pose complex and comprehensive challenges to cultures and global society. Interpreting those challenges well requires understanding the moral traditions of the world, ancient and emerging. Building effective responses to those challenges requires learning how to engage with their moral resources, converse with their participants, and imagine new cultural possibilities. *The Spirit of Sustainability*, the first of ten volumes that will comprise *The Encyclopedia of Sustainability*, intends to help readers identify and begin to explore the moral dimensions of sustainability.

Within these pages scholars from many disciplines introduce and explain key concepts, major traditions, and significant practices relevant to thinking about sustainability. The contributors cover topics that range widely across cultures and traditions, presenting readers with a lexicon of available and diverse vocabularies of sustainability. It is not, however, the lexicon of a shared discourse. Because these authors work from multiple academic fields and represent various traditions, they have differing and sometimes competing views; sustainability indeed absorbs disparate ideas, values, and projects, many of which vie for inclusion in contemporary thought and public conversation. This volume therefore offers a pluralist selection of articles related to one another by their significance for sustainability—a pluralist and contested concept in itself.

Rather than impose a master definition of the term “sustainability,” we invited contributors to explain how their topic matters for making sense of sustainability’s ambiguity and multiplicity. Some articles explore practices that may help interpret what sustainable living means; some enumerate goals that sustainability must include. Others introduce moral traditions or interpretive frameworks that can help us reason through the combined challenge of meeting those goals. A number of articles charge us with examining received notions of sustainability, or ask us to consider how sustainability challenges received notions of other social goals.

So while unavoidably partial, this volume represents the depth and breadth of the basic question at hand: what must we sustain? *The Spirit of Sustainability* invites students, general readers, scholars, and professionals to reflect on sustainability as a moral problem. Sometimes we avoid or truncate moral issues in sustainability discussions and—seeking the least controversial, most feasible steps forward—restrict ourselves to talk of market policies, political strategies, and technological possibilities. But deciding what we can and must sustain finally confronts the collective moral capacities of humanity. It tests what we might call the human spirit.

**Sustainability as Moral Challenge**

Encouraging contributors to reflect on morality and explore the realm of spirit may strike some as inviting trouble, more trouble than it is worth. Religion and ethics present perennial difficulties to public discussion—difficulties compounded when the public is global in extent. Debates over the good, let alone divine will or cosmic destiny, can easily divide pluralist cultures and frustrate collective responsibility. Indeed, liberal societies confront their social challenges first through existing market, political, and technological systems, in part because they want to avoid destabilizing moral debates.

But the challenge of sustainability begs for an evaluation of those systems. Consider again the basic question: what must we sustain? It arises because humanity’s organization of economic, political, and technological systems has begun to threaten the ecological systems on which they rely. The root concept of sustainability refers
to the ability of an activity to endure without undermining the conditions on which it depends. A related series of ecological and social problems—like biodiversity loss, demographic instability, toxic pollution, and climate change—indicate that the human endeavor may be undermining the conditions of its own endurance. Even a modest prudence suggests that we ask why, and what must be done to change things.

Sustainability presents an odd sort of challenge for global society, at once minimal and comprehensive. It asks us to consider the prospects for a merely decent survival of the human species, but by doing so it raises issues about the value of nonhuman life forms, the goals of economies, the form of humanity’s presence on Earth, and the kind of futures we want to make possible. As we begin to consider what we should sustain, we are eventually forced to reflect on what sustains us. On what do human cultures and economies depend? How do human and ecological systems relate? What are the conditions for the human spirit?

There is a paradoxical depth to these questions. Although they inquire about the moral minimum of a decent survival, answering them invites reflection on the totality of our dependency and relations. As sustainability confronts political societies with decisions about how to protect what sustains us, it pushes sweeping moral questions into public visibility. Ethical frameworks and religious traditions can help foster civic debate about problems that call into question the trajectory of our economic, political, and technological systems.

Invoking morality and exploring religious traditions may in fact empower responses to overwhelming challenges. Faced with difficult choices about reform, societies may be tempted to embrace the easier supposition that history affords us no alternative—that markets are shaped by ungovernable forces, governments by inexorable tendencies of power, and cultures by inevitable technological progress. Globalization is sometimes presented this way. Perhaps the chief contribution we can make to “global ethics” is to refuse such suppositions, to insist that we can create some global institutions of governance based on shared values and commitments.

Presenting sustainability as a moral problem accomplishes something similar. It affirms the possibility that, through dialogue and deliberation, we can find alternatives to our present systems and that, doing so, we can resist reductionist interpretations of complex threats to our humanity. Treating sustainability as a moral problem lets us consider the possibility that our economic, political, and technological systems might work differently and better, encouraging us to imagine how we can inclusively integrate several kinds of sustaining goods. What cultural commitments would it take to harmonize economic health, ecological integrity, social equity, and fairness to the future?

The Spirit of Sustainability provides resources for engaging those questions, understanding their context, and beginning to formulate workable answers. By introducing the question of sustainability in multiple moral perspectives, the volume also helps keep the concept of sustainability pragmatic: presenting the basic challenge sustainability poses to many cultures, traditions, and systems produces a common arena of discussion across many social worlds. This volume helps develop sustainability as a bridging or integrative rubric capable of describing shared moral jeopardy, of organizing social problems, and of gathering cultural resources for response. (For further discussion see Willis Jenkins’s “Sustainability Theory” herein.)

**Spirit: Exploring Religion, Culture, and Ecology**

Any resource with encyclopedic ambitions will inevitably omit relevant topics; for just this one volume in a wider series on sustainability, we have had to select from an extensive range of possible articles. Our intention, however, was not to provide exhaustive coverage but to offer representative and introductory resources that will point readers to further connections and invite deeper examination of related topics. Many articles provide perspective for exploring other volumes of The Encyclopedia of Sustainability. Most also suggest additional sources for study or contemplation.

The 147 articles here cover significant ground in philosophical, social, and environmental ethics, with emphasis on approaches to cultural critique and social change. Among these entries we have created (for several reasons) a special focus on religious traditions, practices, and concepts. First, interpreting our contemporary cultural context and its political possibilities requires an understanding of religious discourse; some of the obstacles to social change may have roots in religious values, while some of the paths to reform may involve spiritual dimensions. Second, for many people a full answer about sustenance must involve some reach toward depths typically
described as religious—toward beauty, mystery, spirit, love, faith, or God.

Third, and most importantly, considering sustainability as a moral problem raises both basic and overarching questions; religious traditions have developed moral frameworks for thinking them through. A familiarity with religious, spiritual, and cultural traditions can help us engage the complexity and depth of sustainability challenges. This volume collects many of the most important resources for readers to consult as they begin exploring sustainability as a moral issue.

The burgeoning work in the field of Religion and Ecology, in which scholars have been exploring, evaluating, and revising the relationships of religion, culture, and environments, has provided an important arena for discussions of the spirit of sustainability. Indeed this volume was produced in collaboration with the Forum on Religion and Ecology (FORE), and its contributors include many participants from FORE events and publications. See, for example, Mary Evelyn Tucker’s “Global Religious Traditions,” and Frederick Mathewson Denny’s “Islam,” which expands his initial scope in a FORE publication to include issues of water management from the legal, economic, and ethical perspectives of the Islamic world. In addition, many of the quotations found throughout the volume have been made available by FORE.

This volume also moves beyond the usual discussions of religion and ecological change by considering the broader range of moral issues that must be raised in sustainability debates. Confronting sustainability requires not only ecological thinking but practical deliberations over such issues as the economic common good amidst global poverty, a stable international peace in the face of nuclear weapons, public health despite new anthropogenic risks, and social justice in fairness to future generations. Many contributors focus primarily on ecological dimensions of religious and ethical frameworks, likely because environmental commitments are the most underdeveloped topics or the arena in which the most significant change has been happening. But sustainability includes dimensions of exploration still more encompassing and interdisciplinary.

Not only must we investigate how religious and spiritual traditions think about their environments, or how nature provokes spirituality, but how we can meet the integrative, comprehensive challenges of sustainability with the civic and moral resources available to us.

There is no single definition of religion at work here, neither of culture, spirituality, or ethics. The variety of contributors and the diversity of topics encompass many notions of religion and culture. Several contributors on indigenous traditions make a point of not distinguishing between religion and culture, indicating that some Western categories of distinction may need rethinking.

The normative orientation of this volume—relating cultural topics to sustainability as a moral problem—assumes broadly inclusive views of the relevant topics.

Finally, a word must be said about “spirit.” The title of this volume employs a term now used within many notions of the religious, and yet also in order to escape from religious categories or institutions. In other contexts “spirit” may refer to the intelligence of humanity, the living force of animals, the vitality of life, the power of history, the breath of divinity, or the wisdom of the cosmos. Wildly variant, all those meanings converge in asserting that the global challenge of sustainability cannot be reduced to political calculation or market exercise. Facing sustainability as a moral problem requires a spirit of sustainability; it requires summoning our intelligence, acting with purpose, companioning with life and learning anew the economy of wisdom.

Absorptive and inclusive, “spirit” seems an apt metaphor to indicate the multi-disciplinary, pluralist, and many-cultured lexicon of moral resources the reader will find here. It also suggests liveliness, and the reader will find that—unlike staid reference works summarizing objective knowledge—many contributors explain their topics animated by a sense of common purpose. Pluralist and purposeful, multivalent and animated, spirit is a sustaining metaphor.

Willis Jenkins
New Haven, Connecticut
A NOTE ON WRITING ABOUT THE DIVINE WITH GENDERED LANGUAGE

Referring to God is always a perilous linguistic activity—some monotheistic traditions in fact make that peril a key point. In a volume covering many vocabularies of the divine, mundane functions of language—like pronouns—can carry unwanted ideological baggage. They can make it seem like God is a man, one English-speaking man no less, which can raise objections for all sorts of reasons. In interfaith context, our language can lead us not only into gender trouble but number trouble.

Some scholars still use masculine pronouns as the default neutral, but for many readers that can make it seem as if the writing is emphasizing a masculine image of God. Other scholars might alternate between masculine pronouns in one paragraph and feminine ones in the next. Some even experiment with “hir” and “ze” as hybrids of his/her and she/he. In our view such contrivances start to trip up the reader, but they do show that talk about the divine stresses language, especially when cultural systems are under criticism for their complicity in sexism. Acknowledging what can be called a sexist patrimony (!) of language, many scholars use feminine pronouns as the default, in order to interrupt the dominant gendered images they produce. We may not have any gender-appropriate language for God.

So in this volume we have encouraged authors to avoid using pronouns altogether. The effect can be clunky, for example, in a sentence like “God’s got the whole world in God’s hands,” but one can take theological consolation in that it should be a little awkward to try to talk about the divine.

Beyond that encouragement, however, we have let the authors’ prose stand as it appears, assuming that they are representing their tradition or subject with their language use. The divine in a tradition may be plural, immanent, transcendent, nonpersonal, specifically male, specifically female, androgynous, or any combination of those. Authors use the names and pronouns they think most appropriate to their topic or tradition.

Willis Jenkins