

GREEN DISCIPLESHIP

Catholic Theological Ethics and the Environment

TOBIAS WINRIGHT, editor

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INTRODUCTION

FROM SAVING THE WHALES TO PROTECTING THE PLANET AS A "DUTY INCUMBENT ON EACH AND ALL"

Tobias Winright

Karl Barth, who is considered one of the most significant Protestant theologians of the twentieth century, reportedly advised young theologians, clergy, and Christians in general to “take your Bible and take your newspaper, and read both.”¹ Although doing so would have required some discipline several decades ago, today reading Scripture and keeping up with the daily news is an even more daunting task, given how we are inundated with information provided by twenty-four-hour news networks, Internet newspapers, electronic magazines, and links to stories shared by friends on online social networks, as well as the traditional print sources of journalism. Nevertheless, a scan of the headlines scrolling across the computer screen or the news ticker at the bottom of the television screen is revealing.

Though there are always the usual stories about politics, the economy, and conflicts at home and abroad, in recent years the attention given to environmental issues has increased dramatically. A quick sampling of headlines includes: “More than an oil spill” (*Los Angeles Times*, May 11, 2010); “Hong Kong issues warning as air pollution sets record” (*New York Times*, March 22, 2010); “Cuyahoga River’s fire is marked around the world” (*Plain Dealer*, June 21, 2009); “Fretting about the last of the world’s big cats” (*New York Times*, March 7,

1. “Theologians: Barth in Retirement,” *Time*, May 31, 1963, available at <http://www.time.com/time/magazine/article/0,9171,896838,00.html>, accessed February 2, 2011.

2010); “Wanted: A New Home for My Country” (*New York Times Magazine*, May 10, 2009); and “India’s Holy Ganges to get a cleanup” (*the Wall Street Journal*, February 13, 2010).

To be sure, bad news abounds about environmental problems. biologists estimate that at least 1,000 plant and animal species become extinct annually (that’s three species per day). Indeed, some scientists say that this is a human-caused mass extinction on a scale approaching the disappearance of the dinosaurs 65 million years ago.² Rising sea levels threaten to inundate populated areas such as the Maldives, a string of islands in the Indian Ocean, where 300,000 citizens, their president has suggested, might need to evacuate to another country. The Gulf of Mexico is still reeling from the effects of BP’s *Deepwater Horizon* oil spill, which lasted for three months in 2010 and is the largest in the history of the industry. Of course, the list could go on.

At the same time, there is some good news. In northeast Ohio, the Cuyahoga River, once one of the most polluted rivers in the United States and famous for being “the river that caught fire” in 1969, is now a scenic home to fish and other wildlife thanks to efforts by environmentalists to clean it up. Similar work is currently under way on the Ganges River in India. Moreover, some animal species once on the verge of extinction, such as the American bald eagle, which a few decades ago needed to be protected by the Endangered Species Act, are now thriving. Indeed, once in a while I even see some of these magnificent birds flying along the Mississippi River near and around Saint Louis. So the news is mixed, though it certainly seems the headlines pointing to negative things happening to nature outnumber those highlighting the positive.

However, have you seen headlines like the following? “Leaders of pro-environment Christian group say oil spill shows clean energy is a moral issue” (*Baltimore Sun*, June 17, 2010); “Zen and the art of protecting the planet” (*Guardian*, August 26, 2010); “Conservative Evangelicals embrace God and green” (*Christian Science Monitor*,

2. My daughter Clare, who at the time of my writing this is six years old and has claimed to be a paleontologist for more than three years now, expected me to make note of this. For more on this loss of biodiversity, see Steven Bouma-Prediger, *For the Beauty of the Earth: A Christian Vision for Creation Care*, 2nd ed. (Grand Rapids, MI: Baker Academic, 2010), 29–32.

March 25, 2010); “Orthodox head brings ‘green’ views to D.C.” (*Washington Times*, November 2, 2009); and “The Pope vs. climate change deniers” (*Washington Post*, February 19, 2010). In fact, in an article about “15 Green Religious Leaders,” published on July 24, 2007, by the online magazine *Grist*, Pope Benedict XVI was included, along with Orthodox Patriarch Bartholomew I, the Dalai Lama, Anglican Archbishop of Canterbury Rowan Williams, and others across the religious spectrum.³

Thus, in addition to the environmental efforts of secular organizations that may be familiar to us, such as Greenpeace and the Sierra Club, we can now add the world’s religions. Jewish philosopher Roger Gottlieb observes, “Religions have become part of the all too scarce good news on the environmental front—one more element in a worldwide environmental movement.”⁴ Nor are major religious leaders the only ones speaking out on the importance of caring for the earth. As Mark I. Wallace notes, “Today, many North American churches, synagogues, mosques, and other places of worship are transforming themselves into forward-based earth-care centers committed to protecting God’s creation, sustainable lifestyles, and safeguarding the public health.”⁵ A groundswell of people in communities of faith is striving to care for creation. For example, Saint Clare Catholic Church in O’Fallon, Illinois, where I am regularly invited to speak, is putting up a wind turbine to serve as the parish’s new source for electrical power, as well as implementing a number of other environmentally friendly practices in the parish.

That this is news to many of us isn’t surprising. As the chapters that follow will acknowledge, until recently, religions—including Christianity—have either ignored the environment or been implicated in its degradation. Ecology is a relatively recent concern for people of faith, including theologians, especially when compared with other moral issues—such as war, sexual behavior, and economic justice—that have occupied their attention over the centuries.

3. Kate Sheppard, “15 Green Religious Leaders,” *Grist*, July 24, 2007, available at <http://www.grist.org/article/religious/>, accessed June 2, 2011.

4. Roger S. Gottlieb, *A Greener Faith: Religious Environmentalism and Our Planet’s Future* (Oxford: Oxford University Press, 2006), 7.

5. Mark I. Wallace, *Green Christianity: Five Ways to a Sustainable Future* (Minneapolis: Fortress, 2010), 16.

A scientific consensus seems to have clearly emerged. Many, though not all, environmental problems are indisputably caused by humans (in technical jargon referred to as *anthropogenic effects*). These include oil spills, deforestation, pollution of rivers, toxic dumps, acid rain, and more. Of course, debate continues concerning climate change, or global warming; however, the Intergovernmental Panel on Climate Change (IPCC), which is viewed as the most reliable source of scientific information on this question, issued a report in 2007 that states, “Most of the observed increase in globally averaged temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic greenhouse gas concentrations.”⁶ *Very likely* here indicates a likelihood greater than 90 percent, notes Stephen Bouma-Prediger, a Reformed Christian scholar of religion and the author of one of the best available books on the Bible and creation care.⁷ Major religious leaders appear to regard these findings as persuasive, as well. Pope Benedict XVI, for example, warns that “it would be irresponsible not to take seriously” these “signs of a growing crisis,” including the “problems associated with such realities as climate change, desertification, the deterioration and loss of productivity in vast agricultural areas, the pollution of rivers and aquifers, the loss of biodiversity, the increase of natural catastrophes and the deforestation of equatorial and tropical regions.”⁸

Many scientists, worried over these alarming environmental trends, are calling for major changes in how we live as individuals and societies. However, science, strictly speaking, cannot answer the question: Why should endangered species or polluted oceans or disappearing rain forests matter morally at all? Normative questions like

6. “IPCC, 2007: Summary for Policymakers,” in *Climate Change 2007: The Physical Science Basis* (contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change; Cambridge: Cambridge University Press, 2007), 10 (*italics in the original*).

7. Bouma-Prediger, *For the Beauty of the Earth*, 52 and 192, endnote 99.

8. Pope Benedict XVI, “If You Want to Cultivate Peace, Protect Creation: Message for the 2010 World Day of Peace,” which is reprinted in this text in chapter 3 with the Vatican’s permission, par. 4. For more on climate change, see Celia Deane-Drummond, *Eco-Theology* (Winona, MN: Anselm Academic, 2008), 4–9; Michael S. Northcott, *A Moral Climate: The Ethics of Global Warming* (Maryknoll, NY: Orbis, 2007); and Robert Traer, *Doing Environmental Ethics* (Boulder, CO: Westview, 2009), 257–274.

this fall within the purview of ethics.⁹ In other words, by addressing human behavior and how one ought to live, a transition has been made from the descriptive to the prescriptive, which is the domain of ethics. Ethics is systematic reflection devoted to *ought* or *should* questions. It is the study of human morality, which has to do with questions such as, What sort of persons ought we be or become? How should we live and what ought we to do?

Indeed, there is a connection between *who we are* (our identity, our character, our values, etc.) and *how we behave* (our actions, our deeds, our policies, etc.). These are big questions that have occupied great thinkers through much of history and continue to be addressed by philosophers, theologians, and others today. From Plato to Kant and from Aristotle to Peter Singer, philosophers have wrestled with how to think about and respond to these kinds of questions. In recent years, environmental problems have also caught the attention of philosophical ethicists.¹⁰ If environmental degradation or restoration are human activities at all, involving choices that reflect deeply held views of ourselves, our place, and our role in the world, then there is the need for environmental ethics—just as there is an ethics of war and peace, an ethics of business and economics, an ethics of medicine and healthcare, and so on.

Environmental questions, however, are not restricted to philosophical or professional ethics. As Gottlieb notes in connection with the environmental crisis we face today, “As well as political, economic, and technological, our plight is *spiritual*: it involves our deepest concerns about what is of truly lasting importance in our lives.”¹¹ Religions, therefore, also have much to teach about the meaning of life, about our purpose on this planet, about how to view humankind vis-à-vis the rest of nature, and about how we ought to live and act. In short, religious ethics are involved. In Christianity today, the subdiscipline within theology that is charged

9. Christine E. Gudorf and James E. Huchingson, *Boundaries: A Casebook in Environmental Ethics*, 2nd ed. (Washington, DC: Georgetown University Press, 2010), 4.

10. The philosophical literature on environmental ethics is vast and growing. For a recent example, see Dale Jamieson, *Ethics and the Environment: An Introduction* (Cambridge: Cambridge University Press, 2008).

11. Gottlieb, *A Greener Faith*, 11; emphasis his. See also Deane-Drummond, xi.

with addressing environmental concerns is variously referred to as Christian ethics, moral theology, or theological ethics.

As a Catholic theological ethicist, I did not think, teach, or write about the environment at the outset of my career in the late 1990s. This is not to say, though, that nature wasn't ever on my mind. Growing up on a small farm in the rural Midwest, I loved spending time outside and, in particular, exploring the woods. While attending St. Joseph's Catholic School in Blakeslee, Ohio, as a young boy, I learned about Saint Francis of Assisi, and I would attempt (in vain) to communicate, as the stories claimed he did, with the birds and squirrels I encountered. During those years (the 1970s), my teachers not only tried to teach us to be pro-life in connection with the issue of abortion, but they also introduced us to the "save the whales" campaign under way at the time. Etched into my memory, moreover, are some television commercials—including one with a tear trickling down the cheek of a Native American at the sight of trash and pollution, as well as another with Woodsy Owl and his motto for the U.S. Forest Service, "Give a hoot, don't pollute!"—that had begun to raise public awareness of environmental problems.

However, years later during my training to become a theological ethicist, though I studied moral questions pertaining to medicine, war, and sex, I never had a course devoted to environmental problems (aside from an undergraduate science course on the subject). Nevertheless, in 1995 as a graduate student at the University of Notre Dame, I was invited to help my professors, Maura A. Ryan and Todd David Whitmore, with a conference on "The Challenge of Global Stewardship," which initially exposed me to theological thinking under way about population, consumption, sustainable development, and other related issues.¹² In addition, I was fortunate to get to know Stephen Bede Scharper, who was teaching at Notre Dame at the time and who is the author of a book on this subject, as well as (with his wife Hilary Cunningham) *The Green Bible*.¹³ Also, my close friend

12. See the book that resulted from this conference: Maura A. Ryan and Todd David Whitmore, eds., *The Challenge of Global Stewardship: Roman Catholic Responses* (Notre Dame, IN: University of Notre Dame Press, 1997).

13. Stephen Bede Scharper and Hilary Cunningham, *The Green Bible* (Brooklyn, NY: Lantern, 2002); also see Stephen Bede Scharper, *Redeeming the Time: A Political Theology of the Environment* (New York: Continuum, 1997).

and fellow student at the time, David Weiss, was especially interested in theology and ecology, and he later taught a popular course on the subject at Luther College in Decorah, Iowa, which planted in me the resolve to go and do likewise at some point.

That opportunity arose in 2004 when I was teaching theological ethics at Walsh University, which was founded by the Brothers of Christian Instruction in North Canton, Ohio. The Sisters of the Humility of Mary, who operate Villa Maria,¹⁴ a retreat and educational center just across the border in western Pennsylvania, generously gave me a grant to read on the subject and to construct a new course on theology and the environment to teach at Walsh, a course I now continue to offer regularly at Saint Louis University. Indeed, I suspect “Green Discipleship: Theology and the Environment” will be a permanent course of my repertoire of teaching responsibilities, especially because Christian concern about ecology has gone from giving isolated attention to saving the whales, to making it a vital component of Christian discipleship, as reflected in Benedict XVI’s sweeping imperative statement: “Protecting the natural environment in order to build a world of peace is thus a duty incumbent upon each and all.”¹⁵

In teaching this course over the years, I have used many different books.¹⁶ However, I have longed for a text that provides a solid

14. For more information about their conference center and educational programs, including ecospirituality, organic farming, and more, see <http://www.humilityofmary.org/index.html> (accessed March 3, 2011).

15. Benedict XVI, “If You Want to Cultivate Peace, Protect Creation,” par. 14.

16. A sampling of recent books on religion or Christianity and ecology that I have used in undergraduate (and one MA-level) courses includes, Deane-Drummond, *Eco-Theology*; Gottlieb, *A Greener Faith*; John Hart, *What Are They Saying about Environmental Theology?* (New York and Mahwah, NJ: Paulist Press, 2004); Brennan R. Hill, *Christian Faith and the Environment: Making Vital Connections* (Maryknoll, NY: Orbis, 1998); Pamela Smith, *What Are They Saying about Environmental Ethics?* (New York and Mahwah, NJ: Paulist Press, 1997); Traer, *Doing Environmental Ethics*; and Wallace, *Green Christianity*. I have also supplemented an anchor text by using case studies for class discussions from books such as, Gudorf and Huchingson, *Boundaries*, and James B. Martin-Schramm and Robert L. Stivers, *Christian Environmental Ethics: A Case Method Approach* (Maryknoll, NY: Orbis, 2003). For a textbook that includes selections from a wide range of religions and worldviews, see Richard C. Foltz, ed., *Worldviews, Religion, and the Environment: A Global Anthology* (Belmont, CA: Wadsworth, 2003).

baseline for students, who may have had little to no prior theology at the university level. I sought a text that would survey the current state of the environmental question in theology while pointing toward directions for creative exploration in the future. I envision this present volume as that text.

My intent for *Green Discipleship: Catholic Theological Ethics and the Environment* is that it might serve as an anchor text that is accessible, engaging, and challenging to students—one that instructors find easy to use in the classroom and that they can supplement when they deem fit with more in-depth materials from elsewhere. In this way, I see this book as similar to Mark J. Allman's *Who Would Jesus Kill?: War, Peace, and the Christian Tradition*, which covers the major historical and contemporary moral perspectives on war and peace in Christian theological ethics (with some attention to Judaism and Islam), with some consideration of new thinking currently under development.¹⁷ It's a wonderful anchor text in my course on "War and Peace in the Christian Tradition" that I can easily supplement with articles and books about the areas that Allman highlights. *Green Discipleship*, in my view, ought to serve a similar purpose.

Celia Deane-Drummond defines ecology as "contemporary concern for the environment."¹⁸ This book, like hers, focuses on Christian theological ethics, with some attention to other religious perspectives, so it might be considered to be a contribution to what she calls "eco-theology," which strives to "uncover the theological basis for a proper relationship between God, humanity and the cosmos."¹⁹ Christian theological ethicists reason about issues by drawing on a range of sources of moral wisdom, including the Bible, the tradition of the church, and the human sciences.²⁰ The same approach applies to thinking ethically about the environment. Most of the contributors, though not all, to this volume are Catholic theological

17. Mark J. Allman, *Who Would Jesus Kill?: War, Peace, and the Christian Tradition* (Winona, MN: Anselm Academic, 2008).

18. Deane-Drummond, ix.

19. *Ibid.*, x, xii.

20. For a handy introduction to how Christian theological ethicists do what they do (method), see Allman's initial chapter, "A Crash Course in Christian Ethics," in *Who Would Jesus Kill?*, 19–60.

ethicists. Some contributors instead are experts in other areas of theology or religious studies. A few contributors are actually specialists in other fields, including ecology, sociology, and biology (though these authors also possess advanced degrees in theology).

In his book *A Greener Faith*, Gottlieb identifies three basic approaches evident among theologians and religion scholars who are dealing with environmental questions: reinterpretation, criticism, and vital new contributions. I think there are traces of each of these in the chapters that follow. Some chapters reinterpret traditional texts—such as the Bible, the writings of past theologians such as Aquinas, and the rubrics of worship—and find that these “in fact contain powerful ecological messages, or at least provide some important resources to help improve our relation to nature.”²¹ Even if these teachings were ignored or marginalized previously, they can be explored and tapped to help people of faith to respond to the environmental problems facing us today. Indeed, a similar process of reinterpretation is under way in other religions, including Judaism, Buddhism, and Islam that also are being “mined for [their] environmental resources.”²²

Second, many of the chapters, in addition to retrieval, “offer direct and unflinching criticism.”²³ At times, the Bible has been interpreted in ways that are dualistic, emphasizing the spiritual over against the material, or anthropocentric, focusing on humans at the expense of the rest of creation. The same goes for the teachings of many theologians in the history of the church. For example, feminist and liberation theologians have critiqued in the tradition, respectively, patriarchy and the failure to consider things from the perspective of the oppressed poor—both of which are, they argue, connected with attitudes and practices that result in environmental degradation.

The third mode that Gottlieb identifies involves “vital new contributions to religion’s ongoing evolution,” because the “environmental crisis calls for critical theological creativity.”²⁴ This approach does not plow up new earth that was submerged, ignored, or wrongly

21. Gottlieb, *A Greener Faith*, 20.

22. *Ibid.*, 29.

23. *Ibid.*, 31.

24. *Ibid.*, 36.

used; rather, it pioneers new territory. For example, Mark I. Wallace, in his *Green Christianity*, calls for a “Christian animism” that holds that “all things are bearers of divinity” and that “all of Earth’s vital fluids that make planetary existence possible—blood, mucus, tears, milk, semen, sweat, urine—are infused with sacred energy.”²⁵ Though his book includes pages devoted to both retrieval and criticism, it undoubtedly explores theological ideas that are new to many undergraduate readers. Likewise, some of the chapters that follow consider the work of theologians who push the theological envelope in ways similar to Wallace, such as Sallie McFague and Thomas Berry, and a few chapters break new ground.

This volume consists of seven parts, with twenty chapters. In part I, attention is given to the “signs of the times.” At the close of the Second Vatican Council (1962–1965) in *Gaudium et spes* (Pastoral Constitution on the Church in the Modern World), the Catholic bishops called for the Church to scrutinize the “signs of the times” (in other words, to consider what is actually going on in the world, especially the major problems people are facing) and then to interpret them “in the light of the gospel.”²⁶ Thus, in chapter 1, ecologist Cathy Mabry McMullen examines current trends in her field and the varying degrees with which ecologists are receptive to working with—and learning from—religions in order to address environmental problems. chapter 2, by sociologist Michael Agliardo, SJ, focuses on the rise of religious environmentalism in recent decades and highlights how the 2001 pastoral letter from the Catholic bishops of the Northwest on the Columbia River Watershed demonstrates the constructive role religion can play in the public sphere. chapter 3 provides further evidence of the prominent place that care for the environment occupies today in Catholicism by reprinting, with the Vatican’s permission, Pope Benedict XVI’s “If You Want to Cultivate Peace, Protect Creation: Message for the 2010 World Day of Peace.”

Part II, includes two chapters on the scriptures and care for creation. The Second Vatican Council suggested that the discipline of

25. Wallace, xiv, 40.

26. *Gaudium et spes* (Pastoral Constitution on the Church in the Modern World), in *Documents of Vatican II*, ed. Walter M. Abbot, SJ (Piscataway, NJ: New Century, 1966), 201–202, no. 4.

moral theology “should be more thoroughly nourished by scriptural teaching.”²⁷ Therefore, chapter 4, by Randall Smith, meditates on the Hebrew Scriptures (the Old Testament)—especially the Genesis creation accounts—and humankind’s vocation as stewards within creation. Thomas Bushlack, in turn, studies key passages in the New Testament that point toward the renewal, not only of humankind, but of all creation. Part III consists of two chapters that similarly retrieve wisdom from the Christian tradition. In chapter 6, ecologist and Franciscan friar Keith Douglass Warner, OFM, explores Saint Francis of Assisi’s life of ecological consciousness and its legacy among Franciscans for innovative insights about our ecological vocation of radical discipleship. chapter 7, by Daniel P. Scheid, considers Saint Thomas Aquinas, the Thomistic tradition, and the ways that the cosmic common good should shape our thinking and our lives as “cocreators” with God.

Part IV comprises four chapters that deal with fundamental or basic considerations in theological ethics. In chapter 8, biologist and theologian Nicanor Pier Giorgio Austriaco, OP, investigates the natural moral law, which has played a prominent role in Catholic ethics over the centuries, and how it should guide humans to discern their authentic good, the common good, and the ecological good. Chapter 9, by Nancy M. Rourke, offers a Christian environmental virtue ethics that strives for the formation of people of character who are good neighbors to everyone and everything. Liturgical scholar Stephen B. Wilson, in chapter 10, explores how worship—especially the Eucharist—should inform and transform how Christians understand and engage creation. Chapter 11, by Marcus Mescher, analyzes fresh ways of understanding Jesus’ parable of the Good Samaritan and tackles head-on the question of whether it is possible for Christians to be loving neighbors to nature rather than only to other people.

Part V has chapters that theologically examine wider institutional, structural, and social dimensions—including the political and economic—to environmental problems. In chapter 12, Christopher P. Vogt explicates Catholic social teaching and highlights the

27. “Decree on Priestly Formation,” in *Documents of Vatican II*, ed. Walter M. Abbot, SJ (Piscataway, NJ: New Century, 1966), 452, no. 16.

concept of authentic human development as a promising personal and social framework for economic decision making that serves both humankind and the rest of creation. This is followed by chapter 13 by Kari-Shane Davis Zimmerman, detailing the work of three prominent feminist theologians and the ways that the domination of nature has been related to Christian beliefs about God, humankind, and creation. Chapter 14, by Kathy Lilla Cox, then describes how the ecological crisis especially affects the world's poor and considers what liberation theologians have to say about how we should care for creation and address the problem of poverty.

In part VI, three chapters consider the “greening of faith” in some other religions. *Nostra Aetate* (Declaration on the Relationship of the Church to Non-Christian Religions), from the Second Vatican Council, taught that the Catholic Church “rejects nothing which is true and holy” in other world religions, and it exhorted Catholics to “prudently and lovingly, through dialogue and collaboration with followers of other religions and in witness of Christian faith and life, acknowledge, preserve, and promote the spiritual and moral goods found among these [people], as well as the values in their society and culture.”²⁸ Accordingly, chapter 15 historian and Jewish studies professor Hava Tirosch-Samuelsan canvasses, in addition to the Hebrew Bible, a wide range of literary sources in the history of Judaism that articulate deep ecological concerns that could inspire conservation policies and a distinctive Jewish ecotheology. In chapter 16 June-Ann Greeley introduces us to the ecological conversation under way in Islam, especially centering on the *Qur'an*. David Clairmont, in chapter 17, examines early teachings that have been central to Buddhist approaches to moral problems, how these teachings relate to Buddhist interpretations of the natural world, and how Buddhist critiques about ideas of God and creation relate to Buddhist ecological teachings today.

In part VII, three chapters deal with what is known as applied or special ethics. That is, they draw on insights, lessons, principles, and themes of the sort that surfaced in previous sections

28. *Nostra Aetate* (Declaration on the Relationship of the Church to Non-Christian Religions), in *The Documents of Vatican II*, ed. Walter M. Abbott, SJ (Piscataway, NJ: New Century, 1966), 662–663, no. 2.

and chapters, and then they attempt to apply them in addressing concrete environmental issues. Chapter 18, by Julie Hanlon Rubio, uses family ethics as a portal for tackling environmental ethics and argues that care for creation and its most vulnerable creatures requires Christian households to break out of conventional food systems to eat more justly. In chapter 19, Mark J. Allman argues that Christians possess a distinctive moral obligation to address the world's water crisis because of the prominent role water plays in the Bible and in Christian worship. Finally, chapter 20, by Matthew A. Shadle, focuses on the ways the issues of war and environmental destruction intersect, as well as the problems these intersections pose for ethical reasoning and then identifies promising resources from both Christian tradition and contemporary thinkers for developing solutions to these problems.

Unfortunately, not every possible perspective or topic related to theology, ethics, and the environment can be covered in one volume. Obviously, in the section on the Christian tradition, more chapters could have been included on, for example, Patristic theologians in the earlier history of Christianity or on Orthodox, United Methodist, and Lutheran perspectives. Where possible, contributors tried to be as ecumenical as possible, referring to Protestant and Orthodox theologians, beliefs, and practices. Also, the section on social ethics could have included a chapter on African American contributions to ecotheology and perhaps explored "environmental racism" in the United States.²⁹ The section on insights from other religions likewise could have included chapters on Taoism, Native American spirituality, and traditional African religions. Alas, this volume cannot cover everything. However, I certainly encourage instructors to supplement this text with such materials.

Before concluding this Introduction, I want to say a word about some of the terminology in this volume. First, throughout the book's chapters, the words *nature*, *earth*, *environment*, and *creation* appear,

29. On this topic, I highly recommend Bryan Massingale, "An Ethical Reflection upon 'Environmental Racism' in the Light of Catholic Social Teaching," in *The Challenge of Global Stewardship: Roman Catholic Responses*, eds. Maura A. Ryan and Todd David Whitmore (Notre Dame, IN: University of Notre Dame Press, 1997), 234–250.

and they are used interchangeably. The default word most of the time will be *creation*, because it is more of a theological term. In his book, Bouma-Prediger uses the word *earth* rather than these other words, including *creation*, because for him the term *earth* is “concrete, denoting both the planet on which we live and the very stuff of which we are made.”³⁰ Although I agree about that, and I concur with him and Gottlieb³¹ that whatever it is we’re talking about includes us humans too, I also believe that we (and everything around us) are made up of stardust. Plus, there is a lot of space junk orbiting the planet today, and it is possible that we humans will leave more footprints (hopefully not carbon ones) on the moon and perhaps elsewhere in the future. Therefore, in this volume, though all of these terms will be used, *creation* will be seen most often because it is a theological term that encompasses the earth, humankind, and whatever other parts of the cosmos we affect.

In addition, a word about *discipleship* is in order. Although earlier I highlighted a number of serious environmental problems we face today, I believe that what the following chapters have to offer is important even if there were no ecological crisis. Discipleship has received more emphasis in moral theology in recent decades, especially since the Second Vatican Council. Irish Catholic Enda McDonagh, for instance, has written that by “adopting discipleship as one dominant theme of their reflections and explorations, theologians . . . are compelled to address the Scriptures in text and context more directly and seriously than some doctrinal and moral traditions of the immediate past.”³² Theological ethicists will also take into account the community of faith, gleaning insights from saints and fellow disciples past and present, as well as give attention to the liturgy, which is an “expression or source for Christian morality and the life of discipleship.”³³ Moreover, theological ethicists will focus on praxis, life as it is lived, as well as attend to the

30. Bouma-Prediger, xv. He also notes that *creation* includes angels.

31. Gottlieb writes, “Our relations with nature are not just about penguins and brooks, but about ourselves” (30).

32. Enda McDonagh, *The Making of Disciples: Tasks of Moral Theology* (Wilmington, DE: Glazier, 1982), 4.

33. *Ibid.*, 5.

“various subcategories” within “the traditional range of theological disciplines.”³⁴ In my view, the chapters collected in this volume accomplish much of what McDonagh has in mind. In short, these chapters offer thoughtful guidance for a way of life—let’s call it green discipleship—that Christians ought to be pursuing anyway.

34. Ibid. For more evidence of how discipleship has become a prominent theme in Catholic moral theology, see Bernard Häring, CSSR, *Toward a Christian Moral Theology* (Notre Dame, IN: University of Notre Dame Press, 1966), 18–19; and more recently, Patricia Lamoureux and Paul J. Wadell, *The Christian Moral Life: Faithful Discipleship for a Global Society* (Maryknoll, NY: Orbis, 2010), 9–11, 18–20; and M. Therese Lysaught, “Love and Liturgy,” in *Gathered for the Journey: Moral Theology in Catholic Perspective*, eds. David Matzko McCarthy and M. Therese Lysaught (Grand Rapids, MI: Eerdmans, 2007), 24–42.

CHAPTER 1

THE SIGNS OF THE TIMES: The State of the Question among Ecologists

Cathy Mabry McMullen

KEY TERMS

environmental degradation

human impacts

conservation

ecologist

sustainability

signs of the times

plant dispersal

virtue

INTRODUCTION

The ecological community largely agrees about the severity of the negative impact that humans are having on Earth, an agreement that spans diverse arenas of study. Global climate change, soil and water depletion and degradation, deforestation, loss of species, and genetic diversity are just a few examples of such human impacts.¹ Ecologists, scientists who study the relationships between organisms and their environment, widely agree that these changes are endangering global life-support systems that sustain human life, particularly such fundamental requirements as clean water and healthy topsoil. At

1. Peter Vitousek, et al., "Human Domination of Earth's Ecosystems," *Science* 277 (1997): 494–499; Paul Ehrlich, "Human Natures, Nature Conservation, and Environmental Ethics," *BioScience* 52 (2002), no 1:31–43.

the same time, there is growing and widespread agreement among the world's religions about the severity of the environmental crisis.² Ecology and religion widely concur on the severity of global ecological problems; however, efforts to collaborate on their solution are not widespread. Although there is an eager and increasing willingness on the part of the faith community to develop a partnership with scientists to address environmental problems, scientists share no such consensus for collaboration with the religious community, particularly with respect to Christianity. Although in the past, scientists might have been justified in not considering religion as conversation partner—given religion's lack of interest in, and at times outright hostility toward, environmental concerns—today many religious movements are at the forefront of raising ecological concerns, providing a new opportunity for collaboration.

This chapter touches briefly on the relationship between the Catholic Church and the modern world envisioned in the Second Vatican Council. A more extensive discussion follows of four components of the scientific response to global ecological problems: (1) the consensus within the scientific community on the scope of the problems; (2) barriers within science that make it difficult for scientists to propose and act on solutions; (3) the relationship among scientists, ethics, and religion; and (4) perspectives from the scientific community on how to become a more effective social movement, including through engagement with religion.

A GOSPEL CALL

Gaudium et spes (The Church in the Modern World), or “joys and hopes,” from the initial words of the statement, was the final document issued by the Second Vatican Council of the Roman Catholic Church in December 1965. The first half of this lengthy text addressed basic doctrinal topics—in particular, the Church's relationship with the twentieth-century world—while the second half

2. Roger S. Gottlieb, “The Beginnings of a Beautiful Friendship: Religion and Environmentalism,” *Reflections* 94, no. 1 (2007): 10–13. This entire issue of *Reflections* is an excellent compendium on the role of religion in addressing environmental problems, with a focus on Christianity.

offered pastoral treatments of especially urgent contemporary issues, including marriage, family, culture, economics, political community, and peace and war. In this document, the Church addressed both the Christian faithful and the rest of the world, and in doing so, moved Catholic social teaching from a more abstract basis to one that takes into account human experience.

This methodological shift is evident in the document's call for the Church to scrutinize the "signs of the times" and then to interpret them "in the light of the gospel."³ As David J. O'Brien and Thomas A. Shannon note, *Gaudium et spes* "offered a systematic and synthetic ethical framework for dealing with world problems" so that the Church could be "in service to real people in the concrete circumstances of human history. . . ."⁴ According to M. C. Vanhengel, OP, and J. Peters, OCD, for the expression "signs of the times" to be truly significant and not theologically trivialized, two elements are necessary: an accumulation of facts that all point in the same direction, and this direction must be generally acknowledged by the public.⁵

GOSPEL ROOTS

The phrase *signs of the times* was first officially used in Catholic social teaching in 1963 by Pope John XXIII in his encyclical *Pacem in terris* ("Peace on Earth"), in which each chapter of the document ends with a brief section on the characteristics of the present day, or the signs of the times. The phrase originally surfaced in the Gospel according to Matthew: "You know how to interpret the appearance of the sky, but you cannot interpret the signs of the times" (Matthew 16:3b).

3. *Gaudium et spes*, in *Documents of Vatican II*, ed. Walter M. Abbot, SJ (Piscataway, NJ: New Century, 1966), 201–202, no. 4.

4. David J. O'Brien and Thomas A. Shannon, "Introduction," in *Catholic Social Thought: The Documentary Heritage* (Maryknoll, NY: Orbis, 1992), 165.

5. M. C. Vanhengel, OP, and J. Peters, OCD, "Signs of the Times," *Concilium* 25 (Mahwah, NJ: Paulist Press, 1967): 145.

SIGNS OF THE TIMES

The Scientific Consensus on the Existence of a Crisis

The current scientific consensus on the declining state of the environment satisfies the criteria spelled out at Vatican II concerning what constitutes a sign of the times. It is hard to overstate how completely the science of ecology has embraced human impact as the global “environmental crisis.” This consensus is reflected in how thoroughly the academic study of ecology is shaped by the paradigm of studying the underlying mechanisms of the crisis and the desire to provide a scientific basis for mitigating negative human impacts on Earth’s systems.

Major ecological professional societies devote many resources to applied ecology, most prominently in the form of diverse publications. For example, two of the four journals published by the Ecological Society of America (ESA), a flagship professional society for ecologists, focus on applying ecological research to problems created by human actions. *Ecological Applications* is a journal “open to research and discussion papers that integrate ecological science and concepts with their application and implications. Of special interest are papers that develop the basic scientific principles on which environmental decision-making should rest, and those that discuss the application of ecological concepts to environmental problem solving, policy, and management.”⁶ Recent *Ecological Applications* articles have included, for example, “Effectiveness of engineered in-stream structure mitigation measures to increase salmonid abundance: A systematic review,” “Changes in vegetation in northern Alaska under scenarios of climate change, 2003–2100: Implications for climate feedbacks,” and “Legacies of historical land use on regional forest composition and structure in Wisconsin, USA (mid-1800s–1930s–2000s).”

Another ESA journal, *Frontiers in Ecology and the Environment*, “focuses on current ecological issues and environmental challenges”⁷ and is intended to be an interdisciplinary journal that appeals to

6. Ecological Society of America, <http://esapubs.org/esapubs/journals/applications.htm>, accessed July 7, 2009.

7. Ecological Society of America, <http://www.frontiersin ecology.org/generalinformation.php>, accessed July 7, 2009.

scientists, teachers, policymakers, and managers. As its mission suggests, the journal attempts to integrate big topics. For example, the February 2009 issue of *Frontiers* was devoted entirely to the concept of “ecosystem services,” or the things nature provides to people,⁸ with articles on such topics as including ecosystem services in decision making and implementing projects that include these services. Other common topics addressed in the journal include wildfires, nutrient pollution, agriculture and ecology, protection of marine and coastal systems, stream ecology, forest management, and exotic species invasion and control.

Many more specialized societies are also devoted to addressing the ecological problems caused by humans. Two of the more prominent include the Society for Ecological Restoration International (SER) and the Society for Conservation Biology (SCB). The SER mission is “to promote ecological restoration as a means of sustaining the diversity of life on Earth and reestablishing an ecologically healthy relationship between nature and culture.” SCB is a “professional organization dedicated to promoting the scientific study of the phenomena that affect the maintenance, loss, and restoration of biological diversity.”⁹ Both societies sponsor journals that publish original research, as well as other materials, such as newsletters and list servers, designed to influence audiences beyond their immediate membership, including land managers and policymakers.

The consensus on environmental problems is also reflected in the plethora of texts offered by university and academic publishers. In recent years, for example, a Wiley-Blackwell flyer advertised more than ten titles related to climate change and global warming. Island Press is a publishing house with a “core mission” of publishing books that seek solutions to environmental issues. A recent 68-page catalog included books that spanned a comprehensive list of environmental topics, including climate and energy, biodiversity and wildlife, ecological restoration, food and agriculture, and human health and the environment, with another eight hundred titles in press.

8. Susan Ruffo and Peter Kaveiva, “Using Science to Assign Value to Nature,” *Frontiers in Ecology and the Environment* 7, no. 1 (2009): 3.

9. Society for Ecological Restoration, <http://www.ser.org/about.asp>; Society for Conservation Biology, <http://www.conbio.org/AboutUs/>, accessed July 7, 2009.

Scientific Barriers to Taking Action

Despite this consensus on the human impacts on the environment, often no corresponding consensus exists on actions that might address these impacts (at least not when resources are limited, and tradeoffs between conservation and human needs must be taken into account). At least two strains subsist within ecological science that make it difficult for scientists to act in unison and effectively, both pertaining to the nature of modern ecological research.

First, how to apply the results of research to real-world problems is often not clear or straightforward. Research results are frequently inconsistent and, therefore, lead to ambiguous conclusions. A classic example of this inconsistency relates to plant dispersal. Humans have been altering plant communities throughout history, particularly by harvesting forests for wood products and to clear land for agriculture. One of the most-studied phenomena in ecology is the ability of different plant species to disperse. A large body of research in both Europe and North America has focused on the dispersal of forest plant species after land converted to agriculture was abandoned and allowed to revert to forest. The goal of these studies is to evaluate whether humans have had a permanent impact on forests, as not all plant species are able to return as a result of their limited dispersal capacity. This research is important, not only for current conservation but also because the ability of plants to disperse and migrate will have a large influence on how different species respond to changing climate. This extensive body of research, however, has not led to consistent conclusions that would allow researchers to target dispersal-challenged species for conservation.¹⁰ One reason is that ecological science is rarely practiced as a coordinated effort to understand and solve specific problems. Thus, research programs are tailored to individual interests and preferences and the length of grant cycles; and even slightly different research questions, methods, and periods of study influence the results of such programs, preventing them from being

10. Kathryn M. Flinn and Mark Vellend, "Recovery of Forest Plant Communities in Post-Agricultural Landscapes," *Frontiers in Ecology and the Environment* 3, no 5 (2005): 243–250.

comparable.¹¹ Without the ability to compare, consistent patterns that can be applied to address an issue are difficult to find.

Moreover, scientists and managers increasingly recognize the existence of an “implementation gap” between research scientists on one hand and on-the-ground managers on the other. The gap describes a situation in which much of what is published in the academic literature about conservation is not actually applied to successful conservation practices.¹² The problem often arises because academic scientists and the people who manage land have distinctly different work cultures and different reward systems, particularly in the types of achievement they recognize. Under the academic-reward system, the highest status is given to innovative and cutting-edge research that can be published in high-impact international journals, which appeal to a broad international community of scientists who are working in primarily academic settings. This system tends to under reward research that is applied or directed at problem solving.¹³ In addition, research results are published in specialized peer-reviewed journals with a largely academic circulation, while many on-the-ground managers lack access to university research libraries and tend to base their decisions on case studies, long-term experience, and trial and error.¹⁴

11. Catherine M. Mabry and Jennifer M. Fraterrigo, “Species Traits as Generalized Predictors of Forest Community Response to Human Disturbance,” *Forest Ecology and Management* 257 (2009): 723–730; L. Roy Taylor, “Objective and Experiment in Long-Term Research,” in *Long-Term Studies in Ecology*, ed. Gene E. Likens (New York: Springer-Verlag, 1989), 20–70.

12. David Ehrenfeld, “War and Peace and Conservation Biology,” *Conservation Biology* 14, no. 1 (2000): 105–112; Tony Whitten, Derek Holmes, and Kathy MacKinnon, “Conservation Biology: A Displacement Behavior for Academia?” *Conservation Biology* 15, no. 1 (2001): 1–3; Robert J. Cabin, “Science-Driven Restoration: A Square Grid on a Round Earth,” *Restoration Ecology* 15, no. 1 (2007): 1–7.

13. Peter A. Lawrence, “The Mismeasurement of Science,” *Current Biology* 17, no.15: R583–R585; Stuart E. G. Findlay and Clive G. Jones, “How Can We Improve the Reception of Long-Term Studies in Ecology?” in *Long-Term Studies in Ecology*, ed. Gene E. Likens (New York: Springer-Verlag, 1989), 201–202; Reed F. Noss, “The Failure of Universities to Produce Conservation Biologists,” *Conservation Biology* 11, no. 6 (1997): 1267–1269.

14. See Wendell Berry, “*Life Is a Miracle*” (Washington DC Counterpoint, 2000) for a thorough exploration of the contrast between these two worldviews.

Practical constraints also often work against fully integrating research science and natural-resource management. Managers often need to act immediately, before a research-based understanding of a system has been developed.¹⁵ Good examples of the need for immediate management action are the need to control new exotic pests, plants, and insects before they become established and displace native species, and the need to act quickly to protect rare or endangered species. Moreover, many management actions are difficult to carry out in a research-based format. For example, publishable research requires that a study have replicated treatment areas and untreated

NEW EXOTIC PESTS

Reed canary grass (*Phalaris arundinacea*) is well known for its ability to aggressively invade native wetlands and riparian areas, displacing native species and converting these formerly species areas to stands of vegetation that is nearly all reed canary grass. The precise reason the plant is so invasive is not clear to scientists, but invasion has been associated with sediment-rich waters from stormwater and agricultural runoff.

Although reed canary grass may be native to North America, the invading plants are believed to be a more aggressive ecotype introduced from Europe or a hybrid between the native and European ecotype. Reed canary grass spreads both through high seed production that then enters the seed bank and vegetatively through the roots. There is extensive research and management literature on reed canary grass control, but so far, there is no highly successful management prescription for extensive invasions, and control measures must be continued indefinitely.

15. Jay B. McAninch and David L. Strayer, "What Are the Tradeoffs between the Immediacy of Management Needs and the Longer Process of Scientific Discovery?" in *Long-Term Studies in Ecology*, ed. Gene E. Likens (New York: Springer-Verlag, 1989), 203–205; Connie L. Dettman and Catherine M. Mabry, "Lessons Learned about Research and Management: A Case Study from a Midwest Lowland Savanna, U.S.A.," *Restoration Ecology* 16, no. 4 (2008): 532–541.

control areas. Data often need to be collected at specific times and with high precision. However, these are often difficult for managers to achieve due to lack of time and resources. Lack of institutional structures to bring scientists and managers together contributes to these limitations.¹⁶

ECOLOGICAL SCIENCE, PROBLEM SOLVING, ETHICS, AND RELIGION

Aldo Leopold (1887–1948), widely regarded as one of the founders of the modern conservation movement and restoration ecology, wrote compellingly about extending the sphere of ethical concerns beyond humans to include the natural world. His best-known work, *A Sand County Almanac*, combines his astute observation of land, animals, and humans and culminates in his view that humans must have an ethical relationship to land and animals. He is beloved by ecologists and conservationists as an accomplished scientist who could also write passages such as, “It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense.”¹⁷ It is hard to overemphasize the impact that Leopold has had on many ecologists, not only for the continued freshness of his ideas, but also for the compelling language he provides from within science to speak of ethics and moral obligations.

Yet as a social movement, conservation is widely perceived as having failed to make meaningful improvements in creating more sustainable human societies and in limiting degradation of ecosystems. Conservation is failing to conserve—and remarkably, given the disparate sources, there is something of a consensus on this point. As stated starkly in a recent column in the journal *Conservation Biology*,

16. Cabin, “Science-Driven Restoration”; Dettman and Mabry, “Lessons Learned”; Bernard T. Bormann, Richard W. Haynes, and Jon R. Martin, “Adaptive Management of Forest Ecosystems: Did Some Rubber Hit the Road?” *BioScience* 57, no. 2 (2007): 186–191.

17. Aldo Leopold, *A Sand County Almanac* (New York and Oxford: Oxford University Press, 1968), 223.

“There can be little question that conservation as a cultural reform movement is in sad shape today.”¹⁸ The processes within science described previously are one area of concern. In addition, many scientists recognize that an untapped ethical dimension to conservation science and natural resource management is needed to transform these efforts from science into an effective social movement.

Thus, many calls for increasing the effectiveness of conservation acknowledge that conservation scientists must engage the fields of social science, spirituality, morality, and ethics. These calls recognize that achieving conservation goals will require fundamental changes in how we live. Moreover, many scientists admit that conservation goals are unlikely to be achieved without confronting destructive human actions—war, greed, poverty, and consumer culture—and replacing them with more ethically based motivators.

Unfortunately, the scientific community lacks a unifying foundation for ethical practice that would provide a cohesive basis for moral reflection and action and that functions similarly to the normative texts and traditions of specific religions. This lack of cohesion is reflected in the multiple philosophies that appear in the scientific literature attempting to motivate widespread action. Ecologist David Egan notes this rather starkly, “Leaders in the environmental movement have failed to build robust political coalitions, articulate a coherent morality, and figure out who we are and who we need to be.”¹⁹

ECOLOGY AND CONSERVATION AS A MORE EFFECTIVE SOCIAL MOVEMENT

The need to increase effectiveness is reflected in a wide range of papers appearing in ecological journals calling for ecology and conservation science to be more effective in public policy, in decision making, and as a social movement. These papers generally emphasize one of three approaches: (1) the need for more and better science and better communication of the science to the public and policymakers;

18. Eric T. Freyfogle, “Conservation and the Culture War,” *Conservation Biology* 17, no. 2 (2003): 354.

19. David Egan, “People Are Wearing Out the Planet,” *Ecological Restoration* 23, no. 4 (2005): 229.

(2) the need to include ethical language and spirituality as part of our approach to solving environmental problems but without relying on specific traditions; and (3) the need to engage Christians and other faith traditions, because they provide a specific context and moral language that can motivate the kinds of action and changes in behavior that are needed.

Three prominent ecological scientists, William Schlesinger, Paul Ehrlich, and Jane Lubchenco, exemplify the first perspective, emphasizing a need for greater knowledge and better education to increase conservation effectiveness. Schlesinger asks what must be done “to transform human behaviors to enable the persistence of life on Earth under human stewardship.” He sets aside ethics and aesthetics as rationales for preserving biodiversity and looks to the “wonderful new tools with which to do our science better,” including molecular techniques, mass spectrometry to analyze Earth’s chemistry, eddy covariance methods to measure net carbon exchange, and remote sensing. “Mercifully,” he writes, “each day we see increases in our computational abilities to synthesize all the data.” Although at the end of his article, Schlesinger recognizes that poverty and hunger leave some people unable to act sustainably while many wealthier individuals simply choose not to act sustainably, he doesn’t attempt to reconcile these observations with his hopeful message about the power of new and better data.²⁰

Ehrlich acknowledges the need to include social scientists “in seeking solutions to the menacing dilemma of the destruction of humanity’s life-support system.”²¹ Reaching these goals, he argues, requires a change in norms and ethics in both the biophysical and social sciences by borrowing successful marketing strategies from business. “We need to help steer cultural evolution by ‘marketing’ a set of environmental ethics: doing the necessary psychological and market research, selecting appropriate goals, and carefully monitoring the performance of the ‘product’ in a free marketplace of ideas.”²² Although Ehrlich doesn’t address the role of religion directly in this

20. William H. Schlesinger, “Global Change Ecology,” *Trends in Ecology and Evolution* 21, no. 6 (2006): 348–351.

21. Paul Ehrlich, “Human Natures,” 32.

22. *Ibid.*, 39.

transformation of behavior, one can infer that he doesn't envision a direct engagement with religion as he wonders why religion persists among some scientists while "most leading scientists consider it of no interest in explaining how the world works."²³

For her part, Lubchenco writes, "We can no longer afford to have the environment be accorded marginal status on our agendas"²⁴ and proposes a new social contract for science that includes three elements: addressing the most urgent environmental problems first, widely communicating the knowledge gained to inform the decisions of individuals and institutions, and exercising "good judgment, wisdom and humility." Although she recognizes social justice as a component of a sustainable biosphere, her contract does not include social scientists but emphasizes continuation of fundamental research, new research and management approaches, training interdisciplinary scientists, communication, and "educating citizens about the issues."²⁵ She concludes that credible scientists delivering science-based assessments are "powerful tools in communicating knowledge to inform policy and management decisions."²⁶

Other ecologists envision spiritual, social, and ethical dimensions to increasing conservation effectiveness and motivating change—while not engaging the Christian faith community directly—either by pointing to other religious traditions as a source of inspiration and ethics, or more commonly, by general calls to include spirituality and ethics as part of the conservation movement. Barbara Patterson, an ecologist who focuses on wildlife conservation, writes, "The challenge for environmental ethics is to find a solid rational justification for why nature should be protected from human actions."²⁷ She discusses ethics based on instrumental value, intrinsic value, and biocentric approaches and advocates a Buddhist approach centered upon oneness in hopes of overcoming the dualism between

23. *Ibid.*, 38.

24. Jane Lubchenco, "Entering the Century of the Environment: A New Social Contract for Science," *Science* 279 (1998): 496.

25. *Ibid.*, 495.

26. *Ibid.*, 496.

27. Barbara Patterson, "Ethics for Wildlife Conservation: Overcoming the Human-Nature Dualism," *BioScience* 56, no. 2 (2006): 149.

CHAPTER 6

RETRIEVING SAINT FRANCIS:

Tradition and Innovation for Our Ecological Vocation

Keith Douglass Warner, OFM

KEY TERMS

discipleship

**religious ecological
consciousness**

patron saint

religious retrieval

environmentalist

ecologist

tradition

vocation

The Canticle of the Creatures, by Saint Francis of Assisi
(1182–1226)

Most High, all-powerful, good Lord
Yours are the praises, the glory, and the honor and the blessing.
To You alone, Most High, do they belong,
And no human is worthy to mention Your name.
Praised be You, my Lord, with all Your creatures,
Especially Sir Brother Sun,
Who is the day and through whom You give us light.
And he is beautiful and radiant with great splendor;
And bears a likeness of You, Most High One.
Praised be You, my Lord, through Sister Moon and the stars,
In heaven You formed them clear and precious and beautiful.
Praised be You, my Lord, through Brother Wind,

And through the air, cloudy and serene, and every kind of weather,
 Through whom You give sustenance to Your creatures.
 Praised be You, my Lord, through Sister Water,
 Who is very useful and humble and precious and chaste.
 Praised be You, my Lord, through Brother Fire,
 Through whom You light the night,
 And he is beautiful and playful and robust and strong.
 Praised be You my Lord, through our Sister Mother Earth,
 Who sustains and governs us,
 And who produces various fruit with colored flowers and herbs.
 Praised be You, my Lord, through those who give pardon for
 Your love,
 And bear infirmity and tribulation.
 Blessed are those who endure in peace
 For by You, Most High, shall they be crowned.
 Praised be You, my Lord, through our Sister Bodily Death,
 from whom no one living can escape.
 Woe to those who die in mortal sin.
 Blessed are those whom death will find in Your most holy will,
 for the second death shall do them no harm.
 Praised be You my Lord and give him thanks
 And serve him with great humility.¹

INTRODUCTION

Saint Francis of Assisi is widely acclaimed as the preeminent example of Christian care for creation. British royalty, scientists, leaders of other faiths, diverse scholars, and ordinary believers have claimed him as their inspiration in this age of ecological crisis. Why does he have such a broad appeal? First, Francis recognized God's work in creation and loved it. *The Canticle of the Creatures* celebrates his passionate and sensory love of creation. He celebrated the beauty of God in creation and loved God all the more for this gift. Second, Francis experienced God in creation, and this is a most helpful

1. All texts of the writings by and about Saint Francis are taken from Regis Armstrong, OFM Capuchin, Wayne Hellman, OFM Conventual, and William Short OFM, eds., *Francis of Assisi: Early Documents*, vol. I: *The Saint* (New York: New City Press, 1999). Subsequently referred to as FA: ED. *The Canticle* is on pages 113–114.

starting point for contemporary Christian theology. Many Christians have overemphasized the “stain of original sin” and forgotten the more fundamental reality of creation as the good gift of God. Third, Francis provides an example of reflective action. His encounter with the pain of the world inspired him to pray with passion but also to act with compassion and proclaim the Good News of Jesus Christ.

Francis’ radical Christian discipleship—his dedication to living the gospel of Jesus Christ—and passionate love of creation represent an important example of religious ecological consciousness, which means an awareness of humans’ inescapable ecological interdependent relationship with Earth, its elements and living organisms.² Francis’ ecological consciousness influenced his religious imagination, his vision for moral living, his prayer, and his preaching. His life gives witness to an ecological wisdom, to how human beings can live a good life in relationship to the Earth. His witness can inspire in us a vocational response, devoting one’s whole life to God’s love and the needs of the world. Francis is among the most beloved Catholic saints, and his example speaks to men and women of all traditions and to those who do not profess any religious faith. By exploring his ecological witness, we can learn how faith traditions more generally can participate in broader efforts to create a more sustainable society.

Yet, Francis lived in the Middle Ages on the Italian peninsula without any notion of science or what modern people would call environmental problems. How can he be a patron saint of ecologists, given that he died more than six centuries before the invention of ecological science? Similarly, many who today tout him as a religious environmental hero ignore the problem of selectively plucking his admirable features out of his historical context. Lynn White Jr., for instance, describes Francis as “clearly heretical,” ignoring the inconvenient truth that Pope Gregory IX canonized Francis a saint in 1228, two years after his death, in the Catholic Church. Many find Francis inspiring, but few acknowledge the tricky issues of selectively retrieving features from a medieval saint’s biography.

These problems are aggravated by the complex and often contradictory character of the writings by and about Francis. He was a medieval man in a society quite different from ours today, and one cannot

2. Christopher Uhl, *Developing Ecological Consciousness: Paths to a Sustainable World* (Lanham, MD: Rowman & Littlefield, 2004).

SAINT FRANCIS OF ASSISI



IMAGE © THE GALLERY COLLECTION/CORBIS

"St. Francis of Assisi Preaching to the Birds," a predella painting from "The Stigmatization of St. Francis," ca. 1295–1300. Francis is widely loved and respected for his radical Christian discipleship and passionate love of creation, which many today regard as a model for religious ecological consciousness.

Francis' care for creation is but one expression of his vocation, which was rooted in his passionate love of Jesus Christ. Francis was foremost a follower of Jesus, but in him, there was no tension between loving God and loving all creatures of God. His life was marked by a succession of intense religious experiences—what might be called conversion events—that drew him deeper into the mystery of God. Francis was the most popular saint of the Middle Ages because of the dramatic and public expressions

of his conversion events and because he made the message of God's love accessible to ordinary people. His life inspires faith in Jesus Christ and care for creation. In 1967, Lynn White Jr. proposed Francis as "the patron saint of ecologists"³ and twelve years later, Pope John Paul II enacted this suggestion.

slavishly mimic him. To do so would require pretending modern people were also medieval. Looking to Francis for inspiration requires attention to the fundamental differences between his world and today's. Present-day people have to interpret his example, to translate the significance of his witness in his times into terms that are meaningful in the context of

3. Lynn White Jr. "The Historical Roots of Our Ecologic Crisis," *Science* 155, no. 3767 (1967): 1203–1207.

PATRON SAINTS

What is a patron saint, and why does the Catholic Church have them? The lives of patron saints are presented as examples of Christian faith and virtue. Through the centuries, the Church has informally and formally recognized distinguished Christian and held them up as examples for the inspiration of all. They are selected years or centuries after their death to speak to the spiritual aspirations of a contemporary society. Pope John Paul II took Lynn White Jr.'s initial, almost casual suggestion that Francis be named a patron saint, but named Francis an example for a wide range of people working on a broader agenda of social transformation, a much bigger vision than the science of ecology alone offers.

contemporary culture. This requires deciding on appropriate expressions of his wisdom, insight, and consciousness to guide life choices today. To do so entails exercising wisdom in interpreting Francis.

To make Francis' witness meaningful in contemporary culture, one must undertake a retrieval process. Religious retrieval is a broad set of activities taking place across all faiths to select the most appropriate beliefs, human values, and ritual practices to represent their religious identity to the modern world. The selective retrieval of traditions is a fundamental task in the "greening of religions," because this is the chief feature that distinguishes religious environmentalism from other expressions of environmental concern.⁴

This chapter addresses the problem of interpreting the witness of Francis by explaining how and why he and his ecological wisdom have been retrieved. It will draw from the broader reappropriation of Franciscan spirituality and illustrate general issues in the retrieval and reinterpretation of tradition in the greening of religions. This chapter begins by describing how Pope John Paul II represented Francis as a model of environmental care. It examines the key features of

4. See Roger S. Gottlieb, *A Greener Faith: Religious Environmentalism and Our Planet's Future* (Oxford: Oxford University Press, 2006).

Francis' ecological wisdom and then pivots perspective to examine how Franciscans are reinterpreting this wisdom today as part of a broader retrieval process. It concludes by proposing that tradition and innovation are both necessary in the greening of discipleship.

THE "PATRON SAINT OF ECOLOGISTS"

In 1979, Pope John Paul II named Saint Francis of Assisi "heavenly patron of those who promote ecology," referring to Francis' *Canticle of the Creatures*.⁵ Ten years later, the pope launched Catholic concern for the environment with his World Day of Peace Message, "The Ecological Crisis: A Common Responsibility."⁶ So great was the impact of "The Ecological Crisis" that it ended the debate about *whether* Catholics should be concerned about the environment, and the discussion shifted to *how* Catholics should express their care for creation.⁷ John Paul II articulated new ethical duties for Catholics, indeed for the whole human family. He diagnosed the environmental crisis as rooted in a moral crisis for humanity: sin, selfishness, and a lack of respect for life. He proposed several remedies, religious and ethical. He said humanity should explore, examine, and "safeguard" the integrity of creation. He described duties of individuals and institutions of all kinds: for the nations of the world to cooperate at an international level in the management of Earth's goods, for individual nations to care for their citizens, and for individuals to undertake an education in ecological responsibility, for oneself, for others, and for Earth. In the final section of "The Ecological Crisis," John Paul II addressed "my brothers and sisters in the Catholic Church, in order to remind them of their serious obligation to care for all creation." He expressed "hope that the inspiration of Saint Francis will help

5. Pope John Paul II, "S. Franciscus Assisiensis caelestis Patronus oecologicae cultorum eligitur," *Acta Apostolica Sedis* 71 (1979): 1509–1510.

6. Pope John Paul II, "The Ecological Crisis: A Common Responsibility," World Day of Peace Message 1990, in *And God Saw That It Was Good: Catholic Theology and the Environment*, eds. Drew Christiansen, SJ, and W. Grazer (Washington, DC: United States Catholic Conference, 1996).

7. Keith Douglass Warner, OFM, "The Greening of American Catholicism: Identity, Conversion and Continuity," *Religion and American Culture: A Journal of Interpretation* 18, no. 1 (2008): 113–142.

us to keep ever alive a sense of ‘fraternity’ with all those good and beautiful things which Almighty God has created.”

The difference in language between White’s proposal and the official English translation of John Paul II’s announcement is subtle but important; it merits close analysis because it indicates how concern for Catholic identity shapes this retrieval process. White proposed Francis as the patron saint of ecologists, but the original Latin in the 1979 Vatican document named Francis patron of *oecologicae cultorum*, officially translated as “those who cultivate or promote ecology.” What did the pope have in mind with this term? In the United States, one distinguishes environmentalist (a public advocate for environmental protection) from ecologist (a scientist who practices a subfield of biology). In Italian and the Romance languages, however, many people use the terms *ecology* and *environmental concern* interchangeably. In Europe, those who “promote ecology” are environmental advocates and not necessarily ecological scientists. Thus, in the North American context, the meaning of the original Latin could readily be translated as *environmentalists*, *environmental educators*, or *environmental advocates*. Latin, the language of official Catholic documents, has no word for *environmentalist*, so the pope had to select a different term. Yet, modern American terms were not chosen for the official English translation, perhaps because most Catholic leaders—even those highly concerned about the environment—have warily avoided these labels and their associated controversies.

Still, it is important to note that John Paul II was quite open to conducting dialogue with the sciences. He repeated the term *ecology* and its derivatives throughout his pontificate, expressing concern about the direction of human society and reminding his audiences of their moral duties. Taken as a whole, his environmental teachings support stewardship but reframe the rationale and approach within a broad Catholic worldview shaped by Catholic social teaching principles.⁸ In the last years of his life, he emphasized human duties to future generations.

8. Marjorie Keenan, RSHM, *From Stockholm to Johannesburg: An Historical Overview of the Concern of the Holy See for the Environment 1972–2002* (Vatican City: Pontifical Council for Justice and Peace, 2002).

It is necessary, therefore, to stimulate and sustain the “ecological conversion,” which over these last decades has made humanity more sensitive when facing the catastrophe toward which it was moving. . . . Therefore, not only is a “physical” ecology at stake, attentive to safeguarding the habitat of different living beings, but also a “human” ecology that will render the life of creatures more dignified, protecting the radical good of life in all its manifestations and preparing an environment for future generations that is closer to the plan of the Creator.⁹

The pope affirmed that the biological and physical world of creation is important but that human flourishing is important as well. He also said humankind’s “ecological vocation” is more urgent than ever, given the grave threats to the environment.¹⁰ These examples illustrate how John Paul II advocated a profound, critical analysis of the root causes of the environmental crisis. Most conventional environmentalists address the problems of heedless industrial growth and flawed public policy. Pope John Paul II challenged everyone to recognize that the ecological crises are rooted in a much more profound problem, a disordered understanding of what it means to be human in relationship to God and to fellow humans. His critique went further than conventional U.S. environmentalism and called for deeper reflection on making better choices, wiser choices that can uphold gospel values. His concerns reflect his continued insistence on a strong and clear Catholic identity and his vision of bringing this tradition to bear on the problems of modernity. Throughout his pontificate, John Paul II affirmed the importance of solidarity and awareness of our inescapable interdependence. In light of the breadth of his environmental teaching, *oecologicae cultorum* can reasonably be translated as *ecological consciousness*, and Francis is the patron saint of those who promote it.

9. Pope John Paul II, General Audience Address, January 17, 2001; available at http://conservation.catholic.org/john_paul_ii.htm, accessed December 18, 2008.

10. Pope John Paul II, “God Made Man the Steward of Creation,” *L’Osservatore Romano*, January 24, 2001, 11.

CHRIST, FRANCIS, AND CREATION

Francis' relationship with creation should be understood within the broader context of his religious journey: its essential themes of passionate love for Jesus Christ, the desire to follow him, contemplative prayer, ongoing conversion of life, and a spirituality of brotherhood with everyone and everything. Francis' historical record has an astonishing diversity of material. Until recently, most of the popular books about of his life have been based on medieval legends written decades or centuries after his life, by people who did not personally know him. These include many later additions of questionable historical accuracy. Since the Second Vatican Council, scholars have emphasized Francis' own writings because they convey his voice. This new scholarship emphasizes his dedication to following Jesus Christ, his love of the Gospels and the Eucharist, his practice of contemplative prayer, and his public proclamation of God's love and peace. Some surprising insights have emerged. For example, Francis was not a priest; he split his time between wilderness hermitages and urban preaching; and he had no intention of starting a religious order. He set out to foster lay vocations among all people.

Some of the new scholarship has addressed his relationship with Earth, highlighting his love of animals and the elements.¹¹ The medieval stories about Francis describe spiritual encounters with rabbits, fish, worms, bees, crickets, and lambs. The most famous story is that of him preaching to the birds, but contemporary popularization in the form of Francis as a garden statue completely fails to recognize the radical significance of this encounter.¹² His first biographer explains:

After the birds had listened so reverently to the word of God, he began to accuse himself of negligence because he had not preached to them before. From that day on, he

11. Dawn M. Nothwehr, OSF, ed., *Franciscan Theology of the Environment: An Introductory Reader* (Quincy, IL: Franciscan Press, 2003); Roger D. Sorrell, *St. Francis of Assisi and Nature* (New York: Oxford University Press, 1988).

12. Keith Douglass Warner, OFM, "Get Him Out of the Birdbath!" in *Franciscan Theology of the Environment*, ed. Dawn M. Nothwehr (Quincy, IL: Franciscan Press, 2002), 361–376.

carefully exhorted all birds, all animals, all reptiles, and also insensible creatures, to love the Creator, because daily, invoking the name of the Savior, he observed their obedience in his own experience.¹³

The true significance of this story is that Francis awoke to the communion of life he shared with the birds, not that he preached to them. This encounter prompted Francis to further integrate his love of creation with his religious identity and responsibilities. Just as his storied encounter with a leper furthered his religious conversion, so did that with the birds. In ethical terms, nonhuman creatures facilitated an expansion of Francis' moral imagination, because they indicated to him the next set of tasks in his religious journey.

The Canticle of the Creatures best conveys Francis' voice about his experience of creation. Francis reveled in the sun, gazed upon the stars, danced with the air, was drawn to the fire, marveled at water, and caressed the earth. The *Canticle's* vivid images emerged from Francis' sustained contact with the elements and his prayer with the Psalms and gospels. The *Canticle* echoes Psalm 148 and Daniel 3:57–88 and suggests a courtly song of praise to the Creator of the cosmos. Francis, like most vowed religious, would have prayed these regularly, and their imagery would have captured and conveyed his own experience. Francis spent up to one half of each year praying with a few brothers in the wilderness.¹⁴ The early friars practiced contemplative prayer: the practice of responding to love by opening one's heart and by deepening one's awareness of God's love. Contemplation is not liturgical or intercessory prayer. It is not public prayer and does not ask for anything, but rather deepens one's understanding of the depth and breadth and all-encompassing character of God's love.¹⁵

13. Thomas of Celano, "The Life of Saint Francis" in FA:ED, page 234 ff. Technically this is a hagiography, not a biography.

14. W. J. Short, OFM, "Recovering Lost Traditions in Spirituality: Franciscans, Camaldolese and the Hermitage," *Spiritus* 3 (2003): 209–218.

15. I. Delio, OSF, K. D. Warner, OFM, and P. Wood, *Care for Creation: A Contemporary Franciscan Spirituality of the Earth* (Cincinnati, OH: St. Anthony Messenger Press, 2008).

The *Canticle* is a fruit of sustained contemplative spiritual practice, celebrating God's love for all creation and reflected back by creation's praise. It cannot be properly understood apart from Francis' love for Jesus Christ, as expressed through his devotion to the Incarnation and Passion, as experienced through his senses when praying in the wilderness. The *Canticle* discloses Francis' recognition of creation as an expression of God's generous love, that creation has inherent value because God creates it, not because of its material or instrumental value to humans.¹⁶ This is true ecological wisdom.

The renewal of scholarship about Francis began with careful attention to the specifics of his writings and the careful reading of stories about him. The focus of Franciscan scholarship is now shifting to investigate how his religious intuition has shaped the Franciscan tradition: in prayer, preaching, thinking, and acting for the past eight centuries. This work by scholars—women and men, lay and vowed religious—is done to understand the breadth of the Franciscan tradition in history and to open fresh perspectives on how to live out the Franciscan vocation today.¹⁷ Most Franciscans are women, and thus, a great deal of scholarly effort has been devoted to understanding Francis' counterpart Saint Clare, and more recently, Franciscan laywomen. Clare is a powerful witness to contemplative living.¹⁸ The rediscovery of diverse expressions of Franciscan spirituality lived out by laywomen points to the recurrent themes in feminine Franciscan spirituality.¹⁹ In parallel, scholars are now articulating Francis' intuitive spirituality with the philosophical, theological, and cosmological vision of his followers. Saint Bonaventure and Blessed John Duns Scotus are the two most prominent figures in this phase of retrieval.

16. Keith Douglass Warner, OFM, "The Moral Significance of Creation in the Franciscan Theological Tradition: Implications for Contemporary Catholics and Public Policy," *University of Saint Thomas Law Journal* 5, no. 1 (2008): 37–52.

17. J. Chinnici, OFM, "Institutional Amnesia and the Challenge of Mobilizing our Resources for Franciscan Theology," in *The Franciscan Intellectual Tradition*, ed. E. Saggau, OSF (Bonaventure, NY: Franciscan Institute Publications, 2002), 105–150.

18. Regis Armstrong, OFM, Capuchin, *Clare of Assisi—The Lady: Early Documents* (NY: New City Press, 2006); Ilia Delio, OSF, *Clare of Assisi: A Heart Full of Love* (Cincinnati, OH: Saint Anthony Messenger Press, 2007).

19. Darlene Pryds, *Women of the Streets: Early Franciscan Women and Their Mendicant Vocation* (Saint Bonaventure, NY: Franciscan Institute and the Secretariat for the Franciscan Intellectual Tradition, 2009).