

William & Mary Environmental Law and Policy Review

Volume 42 (2017-2018)
Issue 1

Article 2

November 2017

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Repository Citation

Jonathan Z. Cannon and Stephen Cushman, *Pope Francis, Laudato Si', and U.S. Environmentalism*, 42 Wm. & Mary Env'tl. L. & Pol'y Rev. 1 (2017),
<https://scholarship.law.wm.edu/wmelpr/vol42/iss1/2>

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POPE FRANCIS, *LAUDATO SI'*, AND U.S. ENVIRONMENTALISM

JONATHAN Z. CANNON* & STEPHEN CUSHMAN**

Pope Francis's encyclical *Laudato Si': On Care for Our Common Home* (2015) is an ecclesiastical declaration of interdependence between humans and the rest of nature.¹ Having taken the name Francis when he was elected Pope in March 2013, Cardinal Jorge Mario Bergoglio of Buenos Aires chose to align himself with the saint he described as “the man of poverty, the man of peace, the man who loves and protects creation.”² Two years later he issued *Laudato Si'*, the title of which is taken from Saint Francis's “Canticle of the Sun.”³ Throughout the encyclical, Pope Francis emphasizes ecological interconnectedness, a staple of contemporary environmentalist thought, but his concept of interconnectedness generously includes the equity and cohesion of human society as well as the health of natural systems. The Pope refers to this interrelatedness as “integral ecology,” painting Saint Francis, the animating spirit of his encyclical, as an exemplar of integral ecology, “concerned [both] for God's creation and the poor and the outcast” and showing how “inseparable the bond is between concern for nature, justice for the poor, commitment to society, and interior peace.”⁴

Although of obvious importance to the Catholic Church and its members, the encyclical has a broader intended audience, as it seeks to engage all people—co-inhabitants of what the Pope calls our “common home”—in dialogue about the human-nature relationship.⁵ In this Article, we consider the encyclical in this broader context. We identify non-ecclesiastical antecedents of Pope Francis's reflections, including secular

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¹ Pope Francis, Encyclical Letter, *Laudato Si': On Care for Our Common Home* (May 24, 2015), http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html [https://perma.cc/G9Y9-AKCH].

² Cindy Wooden, *Pope Francis Explains Why He Chose St. Francis of Assisi's Name*, THE CATHOLIC TELEGRAPH (Mar. 18, 2013), <http://www.thecatholictelegraph.com/pope-francis-explains-why-he-chose-st-francis-of-assis-name/13243> [https://perma.cc/8H4K-MU4M].

³ See Pope Francis, *supra* note 1.

⁴ *Id.* ¶ 10.

⁵ *Id.* ¶ 1.

works the Pope does not cite but seem to us to have contributed, directly or indirectly, to the nature and direction of the Pope's thinking and to the receptivity to that thinking in the United States. These antecedents suggest that the encyclical, as an instrument of Catholic social teaching, also reflects and absorbs currents of the ambient culture in which it is read, particularly those that bear on the environment. We conclude that the encyclical offers a synthesis of current thinking on the environment that not only advances Catholic doctrine but can be useful in refocusing the secular environmental movement as it debates its future.

We also consider the potential implications of the encyclical for action outside the community of Catholics. Pope Francis makes clear his desire to affect the actions of both the faithful and the entire human community at large. The causal efficacy of his teaching on economic and political choices at a global scale, however, is far from clear. There is no direct or necessary connection between an effort to change our cultural worldview affecting the environment, such as we see in the encyclical, and shifts in law and policy, resource allocation, or other concrete measures consistent with that new worldview. Were the encyclical to succeed in fostering a shift in our environmental ethos, however, that shift would have the potential, through a variety of pathways, to affect human action, including in the domains of law, politics, and the economy.⁶ We argue that the encyclical, given its timing, its author, and the substance of its message, is positioned to contribute to such a shift. In particular, we argue that the encyclical has the potential to knit together disparate threads of the values debate on our environmental future in ways that could stimulate broader public support for constructive environmental action.

I. *LAUDATO SI'* AND THE CURRENTS OF CONTEMPORARY ENVIRONMENTALISM

The currents of contemporary environmentalism, in its various manifestations around the world, are many, and one could speak more accurately, if more awkwardly, about contemporary environmentalisms. In focusing our discussion on the connection between *Laudato Si'* and U.S. environmentalism, we are not denying the importance of other influences on Pope Francis, such as that of Leonardo Boff, Brazilian proponent of liberation theology. Like many of the antecedents we discuss below, Boff's

⁶ JONATHAN Z. CANNON, ENVIRONMENT IN THE BALANCE: THE GREEN MOVEMENT AND THE SUPREME COURT 31–45 (2015) (cultural values as affecting the passage of environmental law and judicial interpretations in environmental cases).

contributions to *Laudato Si'* are readily apparent, although his name appears nowhere in Francis's encyclical. But whereas discussions of Boff's influence on, for example, Francis's use of the phrases "integral ecology" and "*the cry of the earth and the cry of the poor*" are well underway, discussion of U.S. antecedents is less developed.⁷

The connection to U.S. environmentalism becomes additionally significant in the practical realm of the values debate, as well as the constructive actions that might follow from it, for at least two reasons. First, resistance to values associated with the environmental movement has been disproportionately high in the United States, making the potential cultural impact of *Laudato Si'* of particular importance here.⁸ Second, critics have emerged from within the U.S. environmental movement urging reform of its animating worldview in ways they argue would give it more political traction; the encyclical has a potentially significant contribution to make to the debates about the future of the movement.

As we develop later in this Article, the environmental movement in the U.S. is rooted in the nineteenth century, in the works of Ralph Waldo Emerson, Henry David Thoreau, John Muir, and others. The modern global environmental movement had its beginnings in the U.S. during the 1960s and '70s, a period of social and political ferment that included the civil rights and anti-war movements.⁹ Its foundational writings include Aldo Leopold's *Sand County Almanac*, which was first published in 1949 but became widely read after its publication in a 1966 paperback edition; Rachel Carson's *Silent Spring* (1962); and Lynn White's 1967

⁷ Pope Francis, *supra* note 1, ¶¶ 10, 49.

⁸ Lester Milbrath, *The World is Relearning the Story of How the World Works*, in ENVIRONMENTAL POLITICS IN THE INTERNATIONAL ARENA: MOVEMENTS, PARTIES, ORGANIZATIONS, AND POLICY 21, 36 (Sheldon Kamieniecki ed., 1993); Wesley Schultz & Lynette Zelensky, *Values as Predictors of Environmental Attitudes: Evidence for Consistency Across 14 Countries*, 19 J. EVTL. PSYCH. 255, 262 (1999).

We are grateful to our colleague Willis Jenkins for bringing the work of Leonardo Boff to our attention. See in particular these English translations of his work: SAINT FRANCIS: A MODEL FOR HUMAN LIBERATION (J. W. Diercksmeier trans., Crossroad Pub. Co. 1982); ECOLOGY AND POVERTY: CRY OF THE EARTH, CRY OF THE POOR (Leonardo Boff & Virgilio P. Elizondo eds., Orbis Books 1995) (reissued as CRY OF THE EARTH, CRY OF THE POOR in 1997); ECOLOGY AND LIBERATION: A NEW PARADIGM (John Cumming trans., Orbis Books 1995); and ESSENTIAL CARE: AN ETHICS OF HUMAN NATURE (Alexandre Guilherme trans., Baylor U. Press 2008). For evidence of direct connection between Boff and Pope Francis see PAUL VALLELY, POPE FRANCIS: UNTYING THE KNOT 138 (Bloomsbury 2013). We have also benefitted from Willis Jenkins's generosity in letting us read his essay in progress, *The Mysterious Silence of Mother Earth in Laudato Si'*.

⁹ BILL MCKIBBEN, DEEP ECONOMY: THE WEALTH OF COMMUNITIES AND THE DURABLE FUTURE 102 (2007).

essay “The Historical Roots of Our Ecologic Crisis” (“Historical Roots”). These twentieth-century authors offered the contemporary articulation of the worldview that would define the movement and condition the thinking of social, political, and religious leaders in the U.S. and abroad, including, as we see in *Laudato Si'*, Pope Francis himself. Understanding the cultural strains of environmentalism in the United States is therefore important to understanding *Laudato Si'* and its likely influence.

These works come from diverse perspectives: Leopold was a conservation professional, Carson a scientist, and White a historian of medieval technology. Their arguments were also diverse, but they developed common themes. These included criticism of human mastery, or the assumption that humans should dominate the rest of nature rather than assume the more modest role, as Leopold put it, of “plain citizens” of the biotic community; a concern about the capacity of humans equipped with technology to harm natural systems and the health of their own species; and a corresponding emphasis on the limits of natural systems to accommodate human manipulation and warnings of environmental crisis. As scholar of religions and nature Bron Taylor has demonstrated, these foundational environmental authors also criticized traditional western religious beliefs for supporting a destructive anthropocentrism that they associated with arrogant misuse of the environment.¹⁰

But it was White who chose to make his critique of western Christianity a central thesis, rather than a subordinate theme, and it is at least in part for this choice that his essay provoked the most widespread reaction within religious communities and the most obvious challenge to western religious leaders seeking to “green” the doctrine of their faith. In 2008, seven years before the publication of *Laudato Si'*, HarperCollins released *The Green Bible*, which opens with Saint Francis’s “Canticle of the Sun” and consists of the New Revised Standard translation of the Bible with more than one thousand references to the earth printed in green type, on the model of Bibles that print the words of Jesus in red.¹¹ New or reprinted prefatory statements by, among others, Archbishop Desmond Tutu, Pope John Paul II, Anglican bishop James Jones, Episcopal priest Barbara Brown Taylor, New York Divinity School president Paul de Vries, and retired Anglican bishop N. T. Wright signaled a concerted effort by prominent Christian leaders to join environmentalists in

¹⁰ Bron Taylor et al., *The Greening of Religion Hypotheses (Part Two): Assessing the Data from Lynn White, Jr., to Pope Francis*, 10 J. STUDY OF RELIGION, NATURE AND CULTURE 346, 347–48 (2016).

¹¹ See generally THE GREEN BIBLE (2008).

responding to the critique leveled by Lynn White, who is mentioned specifically in the remarks by Barbara Brown Taylor.¹² We therefore begin by focusing our analysis on the influence of White's essay on *Laudato Si'*.

A. *Lynn White's Essay and Anthropocentrism*

Lynn White painted western Christianity as “the most anthropocentric religion the world has seen.”¹³ He connected this anthropocentrism with a worldview that desacralized nature, elevated destructive human technologies, and installed humans as masters over the rest of creation.¹⁴ White's provocative move put environmentalism in tension with the dominant religion of the developed world; at the same time White, who (unlike Leopold or Carson) was himself religious (a devout and life-long Presbyterian), held out the potential role of a “new religion” in reconfiguring western concepts of the “man-nature relationship.”¹⁵

In painting western Christianity as the “most anthropocentric religion the world has seen,” White cited Christian doctrines that humans were “made in God's image”; that they shared “in great measure, God's transcendence of nature”; and that God wills that they “exploit nature for [their] proper ends.”¹⁶ These tenets, he argued, led people to think of themselves as separate from the natural world and as masters of it.¹⁷ While religious in origin, these tenets had permeated western culture to the extent that they were shared by non-religionists as well.¹⁸ Under the influence of this culture, humans' hubristic deployment of science and technology had produced an environmental “crisis.”¹⁹

White compared this religious worldview with the paganism that Christianity had replaced “in the greatest psychic revolution in the history of our culture.”²⁰ The pagans placed humans in spiritual as well as physical communion with the rest of nature, and this sense of the spiritual in natural objects offered nature some protection from human

¹² *Id.*

¹³ Lynn White, Jr., *The Historical Roots of Our Ecologic Crisis*, 155 *SCI.* 1203, 1205 (1967).

¹⁴ *Id.* at 1205–06.

¹⁵ Matthew T. Riley, *A Spiritual Democracy of All God's Creatures: Ecotheology and Animals of Lynn White Jr.*, in *DIVINANIMALITY: ANIMAL THEORY, CREATURELY THEOLOGY* 240, 244 (Stephen Moore ed., 2014).

¹⁶ White, *supra* note 13, at 1205.

¹⁷ *Id.* at 1206.

¹⁸ *Id.*

¹⁹ *See id.*

²⁰ *Id.*

exploitation.²¹ With Christianity, humans' "effective monopoly on spirit in the world was confirmed, and the old inhibitions to the exploitation of nature crumbled."²²

White did not urge the resurrection of pagan religions, and he concluded that eastern alternatives such as Zen Buddhism were unlikely to take root in western culture.²³ He did salute the transformative potential of a minority strain of western Christianity in the figure of Saint Francis of Assisi.²⁴ Saint Francis "tried to depose man from his monarchy over creation and set up a democracy of all God's creatures."²⁵ White argued that this Franciscan anti-mastery strain, the sense that humans were part of a community with all parts of nature, might point western culture in a new direction. To underscore his point, he proposed "Francis as a patron saint for ecologists."²⁶

B. The Broad Impact and Multiple Influences of "Historical Roots"

White's essay spoke to a public that was newly attuned to environmental concerns. Widely disseminated in U.S. venues as diverse as the *Boy Scout Handbook* and the *Whole Earth Catalogue*, it was written about in the pages of *Time* magazine and the *New York Times*. It was also translated into several foreign languages, including Spanish and Italian.²⁷ The themes of White's essay found root immediately in the environmental movement, none more so than his assertion that anthropocentrism was culpable for unleashing hostile technologies upon the natural world. The antithesis of anthropocentrism and nonanthropocentrism, or the recognition of the intrinsic value of non-human nature, became a central feature of the environmentalist worldview that emerged in the first flush of the movement. According to sociologist Riley Dunlap, this worldview is still shared by a majority of Americans, although with less consensus than in the earlier decades of the environmental movement.²⁸

²¹ *Id.* at 1205.

²² White, *supra* note 13, at 1205.

²³ *Id.* at 1206.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.* at 1207.

²⁷ Elspeth Whitney, *Christianity and Changing Concepts of Nature: An Historical Perspective*, in RELIGION AND THE NEW ECOLOGY: ENVIRONMENTAL RESPONSIBILITY IN A WORLD OF FLUX 26–52 (David Lodge & Christopher Hamlin eds., 2006); Roderick Nash, *The Greening of Religion*, in THIS SACRED EARTH: RELIGION, NATURE, ENVIRONMENT 194, 211–12 (Roger S. Gottlieb ed., 1996).

²⁸ Riley Dunlap, *At 40, Environmental Movement Endures, With Less Consensus*, GALLUP

White's essay also considerably influenced intellectuals seeking to understand and shape the human response to what had become widely accepted as the environmental "crisis." It set a generation of environmental ethicists to work "dismantling anthropocentrism and . . . constructing a nonanthropocentric alternative that would recognize the intrinsic value of nature."²⁹ Prominent environmental ethicist J. Baird Callicott called White's essay "the seminal paper" in the field.³⁰ Although White was not a theologian, his work shaped the field of religion and ecology, as religious thinkers sought to come to terms with his critique.³¹ At one point, White humorously referred to himself "[a]s the inadvertent founder, it would seem, of the Theology of Ecology."³²

But alongside its generative influence, White's essay led to counter-currents of resistance within environmentalism.³³ The nonanthropocentric strain of environmentalism so closely identified with White's essay has recently come under attack by so-called ecomodernists.³⁴ In distinguishing themselves from traditional environmentalists, ecomodernists have rejected nonanthropocentrism as a touchstone of environmental valuation, arguing that "all conservation efforts are fundamentally anthropogenic."³⁵ At the same time, they have sought to rescue human technology from the destructive role to which it was assigned by White and others.³⁶ Rather than the engine of environmental degradation, ecomodernists assert, "modern technologies . . . offer a real chance of reducing the totality of human

(Apr. 22, 2010), <http://news.gallup.com/poll/127487/environmental-movement-endures-less-consensus.aspx> [<https://perma.cc/4HHH-V9J2>].

²⁹ Ben A. Minteer & Robert E. Manning, *An Appraisal of the Critique of Anthropocentrism and Three Lesser Known Themes in Lynn White's "The Historical Roots of our Ecologic Crisis,"* 18 *ORG. & ENV'T* 163, 171 (2005).

³⁰ J. BAIRD CALLICOTT, *BEYOND THE LAND ETHIC: MORE ESSAYS IN ENVIRONMENTAL PHILOSOPHY* 40 (1999).

³¹ Willis Jenkins, *After Lynn White: Religious Ethics and Environmental Problems*, 37 *J. RELIG. ETHICS* 283, 283–85 (2009); Whitney, *supra* note 27, at 151; Nash, *supra* note 27, at 87–92.

³² Matthew Riley, *Reading Beyond Roots: The Theological and Weberian Aspects of Lynn White's Scholarship* 140 (2016) (unpublished Ph.D. dissertation, Drew University) (on file with author) [hereinafter Riley, *Reading Beyond Roots*] (quoting Lynn White, Jr., *A Remark from Lynn White, Jr.*, *COEVOLUTION QUARTERLY* 16 (1977)).

³³ Jenkins, *supra* note 31, at 283–84.

³⁴ John Asafu-Adjaye et al., *An Ecomodernist Manifesto* at 26 (2015), <https://static1.squarespace.com/static/5515d9f9e4b04d5c3198b7bb/t/552d37bbe4b07a7dd69fcd9bb/1429026747046/An+Ecomodernist+Manifesto.pdf> [<https://perma.cc/J7DW-MWNW>].

³⁵ *Id.*

³⁶ *Id.* at 9–10.

impacts on the biosphere.”³⁷ Nuclear power, the archetypal technological counterpart of Victor Frankenstein’s Creature for early environmentalists, becomes for the ecomodernists an indispensable component of a viable strategy to head off dangerous global climate change.³⁸

Similarly, within the field of environmental ethics, whose early agenda was set by White’s essay, some writers have questioned the soundness and usefulness of nonanthropocentric theories and urged a new anthropocentrism “that embraces the array of human values—esthetic, cultural, recreational, and so on—produced by diverse and nonexploitative experiences in the environment.”³⁹ Anthropocentrism does not necessarily lead to environmental destructiveness. This diversification of views among environmentalists has given moral legitimacy to the pluralist and anthropocentric value positions claimed by movement reformers, such as the ecomodernists, sometimes referred to as “ecopragmatists.”⁴⁰ Despite these rethinkings, however, White’s essay remains highly influential in the discourse on contemporary environmental concerns; it is still “much pored over and debated, as well as widely cited and perpetually anthologized.”⁴¹ In *Laudato Si’* Pope Francis attempts to answer White, whether directly or indirectly, by building on the statements of his papal predecessors.

C. *Predecessors of Laudato Si’*

In the decades following White’s essay, Popes John Paul II and Benedict XVI issued pronouncements sensitive to environmental concerns but stopped well short of the transformative teaching on the human-nature relationship in *Laudato Si’*.⁴² John Paul II’s 1979 encyclical *Redemptor Hominis* cautioned that “uncontrolled development of technology” brought with it “a threat to man’s natural environment”⁴³ and declared “the Creator’s will that man should communicate with nature as an intelligent and noble ‘master’ and ‘guardian,’ and not as a heedless ‘exploiter’ and

³⁷ *Id.* at 17.

³⁸ *Id.* at 23.

³⁹ Minter & Manning, *supra* note 29, at 171.

⁴⁰ Asafu-Adjaye et al., *supra* note 34, at 7.

⁴¹ Minter & Manning, *supra* note 29, at 163.

⁴² Christiana Z. Peppard, *Hydrology, Theology, and Laudato Si’*, 77 THEOLOGICAL STUDIES 416, 418–19 (2016).

⁴³ Pope John Paul II, Encyclical Letter, *Redemptor Hominis* ¶ 15 (1979), http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_04031979_redemptor-hominis.html [<https://perma.cc/7KYS-927P>] [hereinafter Pope John Paul II, *Redemptor Hominis*].

‘destroyer.’”⁴⁴ In the same year, without mentioning White’s essay, John Paul II proclaimed Saint Francis the Patron of Ecology.⁴⁵ No evidence has surfaced that the Vatican took this step in response to White’s proposal: other commentators had also suggested making Saint Francis the patron of ecology, although White’s proposal had received the most notoriety. About the connection between his essay and the proclamation, White observed, “I tend to chalk it up to the fact that the Pope and I live in the same world.”⁴⁶

John Paul II’s *Peace with God the Creator, Peace with All of Creation*, issued in January 1990 and reprinted at the beginning of the *Green Bible*, focused more particularly on the environment.⁴⁷ In this message, environmental concerns take on greater urgency as the “ecological crisis,” which Pope John Paul II characterizes repeatedly as a “moral crisis,” driven by “a lack of due respect for nature.”⁴⁸ Adam and Eve “were to have exercised their dominion over the earth . . . with wisdom and love. Instead, they destroyed the existing harmony *by deliberately going against the Creator’s plan*, that is, by choosing to sin.”⁴⁹ This failure of stewardship, associated with original sin, was emblematic of the present “crisis.”⁵⁰ In *Peace with God the Creator* John Paul II again invoked Saint Francis, with the hope that “the poor man of Assisi” would “remind us of our serious obligation” to “respect and watch over” the rest of God’s creatures, “in light of that greater and higher fraternity that exists within the human family.”⁵¹

In his 2009 encyclical *Caritas in Veritate*, Benedict XVI, like his predecessor John Paul II, stressed our obligations to care for creation: “Nature is at our disposal not as ‘a heap of scattered refuse’ but as a gift of the Creator who has given it an inbuilt order, enabling man to draw from it the principles needed in order ‘to till it and keep it’ (Gen. 2:15).”⁵²

⁴⁴ *Id.*

⁴⁵ U.S. CATHOLIC, *St. Francis: Patron of ecology*, <http://www.uscatholic.org/church/2010/09/st-francis-patron-ecology> [<https://perma.cc/6ZJZ-8DGH>] (last visited Nov. 12, 2017).

⁴⁶ Riley, *Reading Beyond Roots*, *supra* note 32, at 288.

⁴⁷ Pope John Paul II, Message of His Holiness, *Peace with God the Creator, Peace with All of Creation* (Jan. 1, 1990), https://w2.vatican.va/content/john-paul-ii/en/messages/peace/documents/hf_jp-ii_mes_19891208_xxiii-world-day-for-peace.html [<https://perma.cc/6KX4-MT2R>] [hereinafter Pope John Paul II, *Peace with God the Creator*].

⁴⁸ *Id.* §§ 1–40.

⁴⁹ *Id.* § 3.

⁵⁰ *Id.* § 5.

⁵¹ *Id.* § 16.

⁵² Pope Benedict XVI, Encyclical Letter, *Caritas in Veritate* ¶ 48 (2009), <http://w2.vatican>

He counseled a middle ground against viewing nature either “as something more important than the human person” (which view “leads to attitudes of neo-paganism or a new pantheism”) or as merely “raw material to be manipulated at our pleasure.”⁵³ God’s “grammar” of creation sets the terms for “wise use” of nature, “not its reckless exploitation.”⁵⁴

These pronouncements conveyed the urgency of environmental concern, among numerous other social and economic preoccupations, recognizing the wondrousness of God’s creation and the moral obligation to care for it even as humans extracted their livings from it and connecting the “moral issue” of environmental decline to the moral decline of society.⁵⁵ But these pronouncements also retained an anthropocentric cast.⁵⁶ Their thrust was not to redefine radically the relationship of humans to non-human nature but to replace unchecked human dominion with an obligation of stewardship (e.g., John Paul II’s enjoinder to exercise dominion with “wisdom and love”;⁵⁷ Pope Benedict XVI’s prescription of “wise use, not . . . reckless exploitation.”)⁵⁸ John Paul II’s invocation of Saint Francis was glancing, too little developed to supplant human domination with a full democracy of creatures. In moving from hard-edged dominion to stewardship, the Church was responding to a strain of thought that grew out of “Historical Roots.”⁵⁹ But White himself was critical of this strain, arguing that “[s]tewardship, or the idea that Christians are the caretakers rather than the rulers of God’s creation, [was] more like ‘enlightened despotism’ when compared to Saint Francis’s model.”⁶⁰ It remained for Pope Francis to rise definitively to White’s challenge.

D. *Fraternity of God’s Creatures: The Humility of Saint Francis*

Laudato Si’ does not disavow the notion of stewardship advanced by Pope Francis’s predecessors. Indeed his encyclical embraces “responsible

.va/content/benedict-xvi/en/encyclicals/documents/hf_ben-xvi_enc_20090629_caritas-in-veritate.html [https://perma.cc/8KXZ-6PCE] [hereinafter Pope Benedict XVI, *Caritas in Veritate*].

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ POPE FRANCIS & SEAN McDONAGH, ON CARE FOR OUR COMMON HOME, LAUDATO SI’: THE ENCYCLICAL OF POPE FRANCIS ON THE ENVIRONMENT WITH COMMENTARY BY SEAN McDONAGH 5 (2016).

⁵⁶ *Id.* at 3, 6.

⁵⁷ Pope John Paul II, *Peace with God the Creator*, *supra* note 47, ¶ 4.

⁵⁸ Pope Benedict XVI, *supra* note 52, ¶ 48.

⁵⁹ *See generally* White, *supra* note 13, at 1207 (emphasis added).

⁶⁰ Riley, *A Spiritual Democracy of All God’s Creatures*, *supra* note 15, at 250 (quoting Ernest S. Feenstra et al., *Christian Impact on Ecology*, 156 *SCI.* 738 (1975)).

stewardship” as a proper interpretation of biblical “dominion” and contrasts it with the erroneous understanding handed down as “a Promethean vision of mastery over the world.”⁶¹ Stewardship is linked to humility, a necessary virtue in both the social and natural ecology, because “once we lose our humility, and become enthralled with the possibility of limitless mastery over everything, we inevitably end up harming society and the environment.”⁶²

For Pope Francis, however, stewardship is only the beginning. The goal is the realization of a community of creatures—humans, animals (from the charismatic to the most obscure), plants, and rocks—bound together by love.⁶³ The encyclical captures this concept of community using two terms, “communion” and “fraternity,” as in “that sublime fraternity with all creation which Saint Francis of Assisi so radiantly embodied.”⁶⁴ This community exists because the universe in its entirety is “called into being by one Father,”⁶⁵ making all parts of creation “brothers and sisters.”⁶⁶ This trope of the “universal family,”⁶⁷ the Pope writes, “cannot be written off as a naive romanticism”; how we view ourselves in relation to the rest of creation has implications for how we can be expected to conduct ourselves toward it.⁶⁸

In contrast to human mastery over non-human nature, an outgrowth of an emphasis by western Christianity on dominion according to White, the “universal family” of the encyclical is egalitarian. Although Pope Francis does not use White’s phrase “democracy of creatures” to characterize the Franciscan vision, his “sublime fraternity” is a close approximation.⁶⁹ *Laudato Si'* teaches that “when our hearts are authentically open to universal communion, this sense of fraternity excludes nothing and no one.”⁷⁰ In the numerous invocations by the encyclical of the community and fraternity of all creation, there is no suggestion, in contrast to John Paul II’s *Peace with God the Creator*, that humans occupy a separate, “greater and higher fraternity.”⁷¹ *Laudato Si'* captures what Roderick Nash called the “spiritual egalitarianism” to which Saint Francis

⁶¹ Pope Francis, *supra* note 1, ¶ 116.

⁶² *Id.* ¶ 224.

⁶³ *Id.* ¶ 11.

⁶⁴ *Id.* ¶ 221.

⁶⁵ *Id.* ¶ 89.

⁶⁶ *Id.* ¶ 92.

⁶⁷ Pope Francis, *supra* note 1, ¶ 89.

⁶⁸ *Id.* ¶ 11.

⁶⁹ Riley, Reading Beyond Roots, *supra* note 32, at 290.

⁷⁰ Pope Francis, *supra* note 1, ¶ 92.

⁷¹ Pope John Paul II, *Peace with God the Creator*, *supra* note 47, ¶ 16.

subscribed and which attracted White as an antidote to the prideful exceptionalism he detected in the dominant Latin Christian tradition.⁷²

The move to a spiritual communion with the rest of creation is analogous to Aldo Leopold's ethical reimagining of the relationship of humans to the "land community" of which they were a part.⁷³ Leopold's innovation was occasioned by a modern understanding of the ecological interconnectedness of that community, the web of inanimate material (soil, water, rock) as well as animals and plants, similar in scope to the universe of "creatures" in the encyclical.⁷⁴ The next step in our ethical evolution, Leopold argued, required changing "the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it,"⁷⁵ Rachel Carson similarly urged moving from mastery to harmony, from dominance to humility, characterizing "'control of nature' [as] a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man."⁷⁶ This fundamental reconceptualization of the human-nature relationship became a touchstone of the environmentalist sensibility. Leopold's and Carson's formulations differed from the Pope's primarily because they were grounded in the science of ecology and natural feelings of kinship with non-human nature rather than in theological doctrine. But the ethical bottom line was almost identical.

This conceptual reframing was necessary for the kind of cultural shift that White had in mind and that Pope Francis seems intent on advancing in *Laudato Si'*. But rearranging ideas is not enough. In extolling the transformative power of Saint Francis's "equality of all creatures," White wrote that "[w]e must rethink and *refeel* our nature and destiny."⁷⁷ Similarly, in advancing his egalitarian land ethic, Leopold argued the importance of change not only in "our intellectual emphases" but also in "our loyalties" and "our affections."⁷⁸

Francis's encyclical urges this refeeling with language that imbues the idea of a "sublime communion" with forceful emotional content.⁷⁹ The fraternity of all creatures is "affectionate";⁸⁰ it brings us "to love and

⁷² Nash, *supra* note 27, at 199.

⁷³ ALDO LEOPOLD, SAND COUNTY ALMANAC 219–20 (1966) (original publication 1949).

⁷⁴ *Id.* at 219.

⁷⁵ *Id.* at 219–20.

⁷⁶ RACHEL CARSON, SILENT SPRING 297 (1962).

⁷⁷ White, *supra* note 13, at 1207 (emphasis added).

⁷⁸ LEOPOLD, *supra* note 73, at 246.

⁷⁹ Pope Francis, *supra* note 1, ¶ 89.

⁸⁰ *Id.*

accept the wind, the sun, the clouds”;⁸¹ and it calls us to receive nature with an “openness to awe and wonder.”⁸² The encyclical also evokes negative emotions associated with the disturbance of the universal community: “God has joined us so closely to the world around us that we can feel the desertification of the soil almost as a physical ailment, and the extinction of a species as a painful disfigurement.”⁸³ This empathy with the “suffering” of non-human nature echoes through the cries of “our Sister, Mother Earth” with which the encyclical begins and ends.⁸⁴

Although White’s essay was often interpreted as anti-religious, White believed that religion determined our “ideas about the man-nature relationship” and that those ideas in turn determined “what we do about ecology.”⁸⁵ White’s critics have questioned this linkage between religious constructs and actions affecting the environment as simplistic or unproven.⁸⁶ It is, however, the same linkage that undergirds Pope Francis’s project, quite understandably given the Pope’s institutional platform. Like White, Francis asserts that worldview makes a difference:

If we approach nature and the environment without this openness to awe and wonder, if we no longer speak the language of fraternity and beauty in our relationship with the world, our attitude will be that of masters, consumers, ruthless exploiters, unable to set limits on their immediate needs. By contrast, if we feel intimately united with all that exists, then sobriety and care will well up spontaneously.⁸⁷

Within the family of creatures, “[c]are for nature [becomes] part of a lifestyle,” whose implications extend beyond contemplation and precipitate action.⁸⁸

II. CHALLENGING WHITE ON “THE MOST ANTHROPOCENTRIC RELIGION THE WORLD HAS EVER SEEN”

While elevating Franciscan spiritual community in accord with White, *Laudato Si'* challenges the most damning charge of White’s

⁸¹ *Id.* at ¶ 228.

⁸² *Id.* at ¶ 11.

⁸³ *Id.* ¶ 80.

⁸⁴ Pope Francis, *supra* note 1, ¶¶ 1, 246.

⁸⁵ White, *supra* note 13, at 1206.

⁸⁶ Riley, *Reading Beyond Roots*, *supra* note 32, at 232–33; Whitney, *supra* note 27, at 34.

⁸⁷ Pope Francis, *supra* note 1, ¶ 11.

⁸⁸ *Id.* ¶ 228.

argument—that western Christianity is excessively “anthropocentric.” In many ways this single word, charged by White with widely reverberating pejorative connotations, was the one that launched a thousand environmental ships, *Laudato Si'* among them. But although “Historical Roots” brought “anthropocentric” into familiar usage, and subsequently opened the way for the more recent formation “Anthropocene,” in fact White did not invent “anthropocentric.” The word appeared in English in the middle of the nineteenth century, the *Oxford English Dictionary* dating the first usage in 1863.

The bulk of the Pope’s response to White occurs in Chapter Three, which in the official translation bears the title “The Human Roots of the Ecological Crisis.”⁸⁹ The echo of White’s essay—with “roots” and “ecological crisis”—is striking. The only significant difference between the two titles is the substitution of “human” for “historical,” which functions to redirect the causal attribution from the historical development and spread of church doctrine, in White’s narrative, to the present human condition, in the Pope’s.

The encyclical condemns excessive anthropocentrism (“The Catechism clearly and forcefully criticizes a distorted anthropocentrism”⁹⁰), and it links excessive anthropocentrism to the rise of what the Pope calls the technocratic paradigm, not, as White does, to the desacralization of nature perpetrated by Christian doctrine. For Pope Francis, “[m]odern anthropocentrism” is epitomized by “the technological mind [which] sees nature as an insensate order, as a cold body of facts, as a mere ‘given’, as an object of utility, as raw material to be hammered into useful shape.”⁹¹ The encyclical uses “anthropocentrism” eight times—typically with a pejorative adjective, such as “tyrannical,” “distorted,” “excessive,” or “misguided” (twice).⁹² Five of these references occur in Chapter Three, whose title echoes White’s essay and which serves to rebut the claim sponsored by White that western Christianity sponsored a uniquely aggressive anthropocentrism.⁹³

Pope Francis’s rebuttal is framed in terms of the newly elevated Franciscan vision of universal community.⁹⁴ “The Bible has no place for a tyrannical anthropocentrism unconcerned for other creatures,” because each creature has its “own particular goodness and perfection” and “reflects

⁸⁹ *See id.*

⁹⁰ *Id.* ¶ 69.

⁹¹ *Id.* ¶ 115.

⁹² *Id.* ¶¶ 68, 69, 116, 118.

⁹³ Pope Francis, *supra* note 1, ¶ 116.

⁹⁴ *Id.* ¶ 76.

in its own way a ray of God's infinite wisdom and goodness."⁹⁵ This anthropocentrism interferes with social bonds as well as the relationship between humans and non-human creatures—the entirety of the sublime community.⁹⁶

When human beings place themselves at the centre, they give absolute priority to immediate convenience and all else becomes relative. [I]n conjunction with the omnipresent technocratic paradigm and the cult of unlimited human power, the rise of a relativism which sees everything as irrelevant unless it serves one's own immediate interests.⁹⁷

Francis's rebuttal stops short of a complete rejection of anthropocentrism, perhaps because it has no desire to resuscitate animistic beliefs of the sort that White discusses in his essay as among the early casualties of Christianity's rise. Pope Francis nowhere uses "nonanthropocentrism," a term widely deployed by White's successors in environmental ethics and related fields in constructing theories of "intrinsic" moral values in non-human beings and things. He specifically counsels against replacing "[a] misguided anthropocentrism" with "biocentrism," which might attribute a value to nature unrelated to the role of God as creator and appreciator of all.⁹⁸ In this, Pope Francis echoes Pope Benedict XVI's fears of a "new paganism" or "pantheism." Anthropocentrism, properly understood and constrained, may not be inconsistent with the Franciscan vision, he suggests, and may be necessary for the Church's integral ecology, in which social justice and environmental concerns are closely intertwined.

Although Pope Francis does not completely condemn all degrees of anthropocentrism, he moves to replace it with a more inclusive values concept. In discussing the value of "ecosystems," the encyclical states that "[w]e take these systems into account not only to determine how best to use them, but also because they have an intrinsic value independent of their usefulness."⁹⁹ Explicitly invoking the concept of intrinsic value developed by environmental ethicists such as Callicott, who took

⁹⁵ *Id.* ¶ 68.

⁹⁶ *Id.* ¶ 116.

⁹⁷ *Id.* ¶ 122 (citing Pope Francis, Apostolic Exhortation, *Evangelii Gaudium* ¶ 80, http://w2.vatican.va/content/francesco/en/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium.html [<https://perma.cc/G7QG-GRLG>] (last visited Nov. 12, 2017)).

⁹⁸ *Id.* ¶ 118.

⁹⁹ Pope Francis, *supra* note 1, ¶ 140.

their lead from White's essay, Francis uses it to repudiate the anthropocentric views that White attributed to western Christianity.¹⁰⁰ To similar effect, the Pope writes in the encyclical that "each creature has its own purpose" and that "because all creatures are connected, each must be cherished with love and respect."¹⁰¹ As Sean McDonagh notes in his commentary on the encyclical, this recognition of the inherent value of non-human nature "is certainly new teaching [by the Church], and it has enormous implications for Christians living in the world today."¹⁰² The new teaching of Francis's encyclical responds to the substance of White's essay by elevating the minority strain of Saint Francis's theology to dominant status, completing a decades-long reorientation by the Catholic Church toward the environment. Although this reorientation is consistent with the general "greening of religion" that followed White's essay, the particulars of the encyclical suggest—while they cannot prove—a more direct influence, as other commentators have remarked.¹⁰³ Fusing his notion of integral ecology with that of intrinsic value, Pope Francis attempts to answer White by linking social justice to environmental concern with a more comprehensive vision that, if broadly persuasive, could mobilize new allies on both fronts.¹⁰⁴

A. *Of Technology and Romano Guardini*

Alongside his attention to anthropocentrism, Chapter Three includes most of Pope Francis's remarks about technology, replicating White's close association of anthropocentrism, human arrogance, and technological abuse. Of fifty-eight references in the encyclical to "technology" or "technological," forty-two occur in Chapter Three, as do all six of the Pope's references to the "technocratic paradigm." In Pope Francis's narrative, the "human roots" of our environmental problems include the rise of the

¹⁰⁰ CALLICOTT, *supra* note 30, at 40.

¹⁰¹ Pope Francis, *supra* note 1, ¶¶ 41, 84.

¹⁰² POPE FRANCIS & MCDONAGH, *supra* note 55, at 57.

¹⁰³ Riley, *Reading Beyond Roots*, *supra* note 32, at 287–90. *See also* John Copeland Nagle, *Pope Francis, Environmental Anthropologist*, 28 REGENT U. L. REV. 7, 17 (2015); Brendan Foht, *Two Approaches to Climate Action: Pope Francis on the Environment III*, THE NEW ATLANTIS (2015) 56, 56–57; Roger Pielke, Jr., *Is Science Policy a Theological Matter?*, THE GUARDIAN (June 23, 2015), <https://www.theguardian.com/science/political-science/2015/jun/23/is-science-policy-a-theological-matter> [<https://perma.cc/7KBJ-FR5G>].

¹⁰⁴ Mary Evelyn Tucker, *Ecological Challenges Evoke Ethical Response*, ENV'T: SCI. AND POL'Y FOR SUSTAINABLE DEV. 25, 25 (2015), <http://www.tandfonline.com/doi/pdf/10.1080/00139157.2015.1089144?needAccess=true> [<https://perma.cc/ZUS9-RP7G>].

“technocratic paradigm,” a term he uses for power of technological advance to dictate “decisions about the kind of society we want to build.”¹⁰⁵ The encyclical acknowledges the immense benefits of technology to human flourishing and professes no desire “to return to the Stone Age”; the problem is that our “immense technological development has not been accompanied by a development in human responsibility, values and conscience.”¹⁰⁶ Pope Francis laments the global spread of a mechanistic technological paradigm that emphasizes “possession, mastery and transformation” and reflects “the idea of infinite or unlimited growth,” a “lie” that “leads to the planet being squeezed dry beyond every limit.”¹⁰⁷ Human moral shortcomings (e.g., susceptibility to “the blind forces of the unconscious, of immediate needs, of self-interest, and of violence”) amplify the dangers of the technological paradigm.¹⁰⁸ In Pope Francis’s rendering, the Church did not create the technocratic paradigm, and it certainly did not create human moral weakness. But while Christianity is not the cause, it can offer a cure, “in fidelity to its own identity and the rich deposit of truth which it has received from Jesus Christ.”¹⁰⁹ Francis is not the first pope to describe the dangers of technological advance unconstrained by morals and ethics. In *Redemptor Hominis*, Pope John Paul II lamented the environmental risks of unchecked technological development and exploitation in a section headed “What modern man is afraid of.”¹¹⁰ In *Caritas in Veritate*, Pope Benedict XVI, citing Pope Paul VI, counselled against “entrusting the process of development to technology alone, because in that way it would lack [moral] direction.”¹¹¹ Technology by itself was neither good nor bad (“ambivalent”) but capable of either outcome.

These themes recur in *Laudato Si'*, but with even greater insistence on the perils of unbridled technology on the environment and the poor. Francis’s concern is that technology threatens to assert “a lordship over all” extending the human mastery he argues against.¹¹² This image echoes White’s indictment of the unconditional license granted science and technology by a thoroughgoing anthropocentrism, omitting, of course, White’s allegation that the Church fostered that anthropocentrism.

¹⁰⁵ Pope Francis, *supra* note 1, ¶ 107.

¹⁰⁶ *Id.* ¶ 102–05.

¹⁰⁷ *Id.* ¶ 106.

¹⁰⁸ *Id.* ¶ 105.

¹⁰⁹ *Id.* ¶ 121.

¹¹⁰ Pope John Paul II, *Redemptor Hominis*, *supra* note 43, § 15.

¹¹¹ Pope Benedict XVI, *supra* note 52, ¶ 14.

¹¹² Pope Francis, *supra* note 1, ¶ 108.

While *Laudato Si'* may have emerged partly in response to White, in fact Francis also had in mind an earlier commentator on technology. Whereas evidence for his engagement with White is largely a matter of inference, evidence for his engagement with the writing and thinking of the Catholic intellectual Romano Guardini (1885–1968) is unequivocal. Born in Verona, Guardini was appointed in 1923 to a chair in philosophy of religion at the University of Berlin, from which he was forced by the Nazis to resign in 1939, and then appointed in 1945 to the Faculty of Philosophy at the University of Tübingen, from which he retired in 1962. A Catholic priest working in secular universities, Guardini generated a body of work that has exerted profound influence not only on Francis, who considered writing a dissertation about him while at Sankt Georgen Graduate School of Philosophy and Theology in Frankfurt, but on Francis's immediate predecessors, John Paul II and Benedict XVI.¹¹³

Eight times in *Laudato Si'* Francis quotes from Romano Guardini's book *Das Ende der Neuzeit: Ein Versuch zur Orientierung* (1950), translated by Joseph Theman and Herbert Burke into English as *The End of the Modern World: A Search for Orientation* first in 1956.¹¹⁴ Six of the quotations appear in Chapter Three of *Laudato Si'*, "The Human Roots of the Ecological Crisis," and two in Chapter Six, "Ecological Education and Spirituality." Francis takes all eight quotations from the third and final section of *The End of the Modern World*, "The Dissolution of the Modern World and the World Which is to Come."

Considered together, along with key formulations by Guardini not quoted by Francis, these quotations show that, like White, Guardini found much about twentieth-century technology deeply troubling. But whereas White's essay points the finger at the exploitative attitude reflected in the development, in the latter part of the seventh century, of a new knife-bladed plow that had to be drawn by a team of eight oxen, Guardini's argument focuses more recently "on the last decades just prior to the second World War and the years of that war," during which "the man motivated by technology broke into the field of history and took possession."¹¹⁵ With this twentieth-century possessive eruption of technology "into the field of history," Guardini argues, "the modern picture of the

¹¹³ Christopher Shannon, *Romano Guardini: Father of the New Evangelization*, CRISIS MAG. (Feb. 17, 2014), <http://www.crisismagazine.com/2014/romano-guardini-father-of-the-new-evangelization> [<https://perma.cc/EVR4-K5SH>].

¹¹⁴ Pope Francis, *supra* note 1, nn.83–85, 87–88, 92, 144, 154.

¹¹⁵ ROMANO GUARDINI, *THE END OF THE MODERN WORLD: A SEARCH FOR ORIENTATION* 55 (Frederick D. Wilhelmsen ed., Joseph Theman & Herbert Burke trans., 1988).

world,” which he associates with the “natural piety” of Johann Wolfgang von Goethe, came to an end.¹¹⁶

Guardini takes pains to distinguish his narrative from the narrative of decline sketched by White and decried by ecomodernists: “My hypothesis has nothing in common, however, with that cheap disposition which revels in prophesying collapse or destruction. It has nothing in common with that desire which would surrender the valid achievements of modern man.”¹¹⁷ Whereas White blames desacralization of pagan nature by Christianity in its earliest stages—desacralization that opened the way for the exploitation of nature by the new medieval plow and other technologies—Guardini’s historical focus is narrower and his blaming muted:

If I am correct, the signs of the past thirty years or more indicate that man’s relations with nature are changing. Nature is no longer experienced wondrously as a rich source bestowing harmony on all things, as wisely ordered in itself, as benevolent with its favors. Man distrusts nature, he cannot speak of ‘Mother Nature.’ Nature has become alien and dangerous to man.¹¹⁸

As we have no direct evidence that Francis and the people involved in writing *Laudato Si'* had read Lynn White, so we have no direct evidence that Lynn White had read *The End of the Modern World*, available to him in English eleven years before the publication of his most famous essay. But it is possible to hear in these last statements by Guardini both concurrence with and dissent from White’s subsequent position. The concurrence is that something about human perception of the natural world has changed, and the change, in combination with other forces, could lead to serious problems. The dissent is that the change is not necessarily anybody’s fault, not the fault of Christianity, not the fault of a plow or other technological invention; it is instead the result of historical transformation in human thinking.

The strong influence of Guardini on Francis is palpable here. It is palpable in Francis’s rejection of the rhetoric of unmitigated doomsday pessimism, despite charges against him to this effect by ecomodernists. It is palpable in his acknowledgment that humans have benefited hugely from

¹¹⁶ *Id.* at 50.

¹¹⁷ *Id.* at 50–51.

¹¹⁸ *Id.* at 53.

technological development and innovation.¹¹⁹ And it is palpable in the statement that “our technological prowess has brought us to a crossroads.”¹²⁰

Even those who place complete faith in the power of technology to right all wrongs would be hard-pressed to deny that that power could be misused, and it would be a rare Pollyanna indeed who could maintain that our ethics have developed at the same pace as our technology. With respect to technology, the primary questions raised by Guardini are these: Who is going to control our conceptual framing of what he calls “being”? Is it a matter of “nature—or the non-personal creation,” or is it a matter of “the sphere of human freedom”? What ethics will follow from our conceptual framing of being?¹²¹ What is especially remarkable about Guardini’s argument is that, in posing such questions, it laid out the terms of the ecological crisis seventeen years before Lynn White and sixty-five before both the Ecomodernist Manifesto and *Laudato Si’*.

B. *Beauty and Refeeling*

Important as “anthropocentric” is to environmental conversations, a large part of Francis’s strategy in the encyclical rests on a word that appears nowhere in “Historical Roots.” Forty-three times in *Laudato Si’* Francis uses the word “beauty,” “beautiful,” “beautify,” or “beautified.” There are important words the Pope uses more times, among them “ecology,” “economy,” “technology,” if we count related forms such as “ecological,” “economic,” and “technological.” In addition, as one might expect from someone taking Saint Francis as his model for care of the vulnerable and outcast, the word “poor” appears more times than “beauty.” But whereas one could predict repeated appearances of “ecology,” “economy,” “technology,” and “poor” in a document focused on “global environmental deterioration” and addressed to “every living person on this planet,” many readers might find surprising the Pope’s heavy emphasis on beauty.¹²²

For one thing, that emphasis is new among recent Bishops of Rome. Examination of the writings of John Paul II and Benedict XVI turns up very few instances of “beauty,” at most one or two in a document and rarely in the context of the physical world. This passage from John Paul II’s *Message for the 1990 World Day of Peace* is an exception that confirms the rule:

¹¹⁹ Pope Francis, *supra* note 1, ¶¶ 102–03.

¹²⁰ *Id.* ¶ 102.

¹²¹ GUARDINI, *supra* note 115, at 83.

¹²² Pope Francis, *supra* note 1, ¶ 3.

*Finally, the aesthetic value of creation cannot be overlooked. Our very contact with nature has a deep restorative power; contemplation of its magnificence imparts peace and serenity. The Bible speaks again and again of the goodness and beauty of creation, which is called to glorify God More difficult perhaps, but no less profound, is the contemplation of the works of human ingenuity. Even cities can have a beauty all their own, one that ought to motivate people to care for their surroundings The relationship between a good aesthetic education and the maintenance of a healthy environment cannot be overlooked.*¹²³

Quoting the final sentence of this passage near the end of *Laudato Si'*, in a section titled “Educating for the Covenant between Humanity and the Environment,” Francis develops the implications of “a good aesthetic education”:

By learning to see and appreciate beauty, we learn to reject self-interested pragmatism. If someone has not learned to stop and admire something beautiful, we should not be surprised if he or she treats everything as an object to be used and abused without scruple. If we want to bring about deep change, we need to realize that certain mind-sets really do influence our behaviour. Our efforts at education will be inadequate and ineffectual unless we strive to promote a new way of thinking about human beings, life, society and our relationship with nature. Otherwise, the paradigm of consumerism will continue to advance, with the help of the media and the highly effective workings of the market.¹²⁴

What Francis calls a good aesthetic education is one means of teaching humans to refeel their nature and destiny, as White urges they must, and a good aesthetic education entails teaching the recognition and valuing of beauty.¹²⁵ There is no evidence that Francis or anyone involved in drafting *Laudato Si'* read Elaine Scarry's *On Beauty and Being Just* (1999), but the thinking in this passage echoes many formulations in Scarry's book, such as the following:

¹²³ Pope John Paul II, *Peace with God the Creator*, *supra* note 47, at 14.

¹²⁴ Pope Francis, *supra* note 1, ¶ 215.

¹²⁵ See White, *supra* note 13, at 1207.

More important, there is no way to be in a high state of alert toward injustices—to subjects that, because they entail injuries, will bring distress—without simultaneously demanding of oneself precisely the level of perceptual acuity that will forever be opening one to the arrival of beautiful sights and sounds.¹²⁶

One of the primary arguments in Scarry's *On Beauty and Being Just* is that during the last two decades of the twentieth century beauty was wrongly banished from the study of the humanities in colleges and universities of the United States.¹²⁷ Francis's focus on integral ecology is wider and more comprehensive than Scarry's concern, but his repeated invocation of beauty is similarly corrective.¹²⁸ In anticipation of the sixth and final chapter of *Laudato Si'*, which includes his remarks about aesthetic education, Francis admits candidly that many Christians have not always lived up to the ethical implications of beauty and the rejection of "self-interested pragmatism" they entail:

If a mistaken understanding of our own principles has at times led us to justify mistreating nature, to exercise tyranny over creation, to engage in war, injustice and acts of violence, we believers should acknowledge that by so doing we were not faithful to the treasures of wisdom which we have been called to protect and preserve.¹²⁹

Among "the treasures of wisdom" Francis calls on believers to protect and preserve is an affirmation from the Wisdom of Solomon, cited parenthetically by John Paul II in the full version of the passage above and quoted by Francis early in his encyclical: "Through the greatness and the beauty of creatures one comes to know by analogy their maker."¹³⁰

C. *Of Dialogue*

Another frequently used word in *Laudato Si'* is "dialogue," and it is at this point that we would like to combine Francis's emphasis on

¹²⁶ ELAINE SCARRY, ON BEAUTY AND BEING JUST 60–61 (1999).

¹²⁷ *Id.* at 57.

¹²⁸ See Pope Francis, *supra* note 1, ¶¶ 11–12.

¹²⁹ *Id.* ¶ 200.

¹³⁰ *Id.* ¶ 12 (quoting *Wisdom* 13:5).

beauty with his call for dialogue, particularly as it appears in this sentence, the penultimate of chapter five: “An open and respectful dialogue is also needed between the various ecological movements, among which ideological conflicts are not infrequently encountered.”¹³¹ Beauty may not have figured prominently in the writings of earlier popes, but it occupied a central place in the writing of some major American nineteenth-century thinkers often labeled “romantic” thinkers who influenced, through various successors, twentieth-century western environmentalism, without which *Laudato Si'* would not have assumed the form it did, if it had emerged at all. Conversely, beauty has a very slender presence in the public utterances of ecomodernism. The dialogue we envision here turns from consideration of the encyclical in relation to White’s “Historical Roots,” and the critique of Christian anthropocentrism, to the ongoing debate among contemporary environmentalists of all stripes; the dialogue we envision, now that media focus on *Laudato Si'* has ebbed, taking public attention with it, is a respectful one among present-day heirs of nineteenth-century American romanticism, ecomodernists, and Pope Francis. Our interest in advancing a synthesis of these views is not casual or merely academic, in the disparaging sense in which many use the latter word. Rather, it follows from, and supports, Francis’s effort to “advance some broader proposals for dialogue and action which would involve each of us as individuals, and also affect . . . policy,” whether international or local.¹³²

D. *What’s the Big Romantic Idea?*

Ralph Waldo Emerson, Henry David Thoreau, and John Muir heavily influenced the development of modern environmentalism in the United States, either directly or indirectly. Rachel Carson read and admired Thoreau and cited Muir on the absurdity of the anthropocentric view.¹³³ In its emphasis on interconnectedness and resistance to the “Abrahamic concept of land,” Leopold’s *Sand County Almanac* channeled Muir.¹³⁴ The influence of these writers has been global: modern environmentalism began in the U.S. and has helped to shape the development of environmentalism elsewhere in the world.¹³⁵

¹³¹ *Id.* ¶ 201.

¹³² *Id.* ¶ 15–16.

¹³³ CARSON, *supra* note 76, at 7–8.

¹³⁴ LEOPOLD, *supra* note 73, at xviii.

¹³⁵ MCKIBBEN, *supra* note 9, at 102.

What clouds and complicates respectful dialogue is that these nineteenth-century romantic writers (Muir lived fourteen years into the twentieth century) have fallen into disfavor with many who reject and disparage what they think of as romanticism, Francis among them. Although he names no names, in *Laudato Si'* he asserts that our “relationship with the environment can never be isolated from our relationship with others and with God. Otherwise, it would be nothing more than romantic individualism dressed up in ecological garb, locking us into a stifling immanence.”¹³⁶ While it is not clear that “all people” to whom Francis addresses his encyclical are prepared to ponder the nature and consequences of something called “stifling immanence,” it is clear that anyone ready to ponder “romantic individualism dressed up in ecological garb” is also ready to associate it with the international legacies of Henry David Thoreau and John Muir.¹³⁷ They are hardly the only romantic individualists; Francis may have had in mind Jean Jacques Rousseau or Goethe (following Guardini) or William Wordsworth or Emerson or Giacomo Leopardi. But if any people have appeared to dress up romantic individualism in ecological garb, they would be, in the eyes of many, Thoreau and Muir, patron guru of American environmentalism and founder of the Sierra Club, respectively.¹³⁸

Francis is not alone in casting romantic individualism as a self-defeating dead end when it comes to solving environmental problems that face us. Criticism of Emerson, Thoreau, and Muir has become commonplace in both academic and popular writing. They are too male; too Anglo-Saxon; too Protestant; too privileged; too narcissistic; too misanthropic; too suspicious of business and capitalism; too resistant to the benefits of progress, development, and technology; too selfish in their insistence on preserving large tracts of land for their solitary pleasures; too cranky. Most relevant to this discussion is the resemblance of Francis’s dismissal of romanticism to that by ecomodernism. In a statement dated September 4, 2014, Michael Shellenberger and Ted Nordhaus offer the following introduction to “becoming ecomodernist”:

The last few years have seen the emergence of a new environmental movement—sometimes called ecomodernism, other times eco-pragmatism—that offers a positive vision

¹³⁶ See Pope Francis, *supra* note 1, ¶ 119.

¹³⁷ See Lewis P. Hinchman & Sandra K. Hinchman, *What We Owe the Romantics*, 16 ENVTL. VALUES 333, 350 (2007).

¹³⁸ *Id.*

of our environmental future, rejects Romantic ideas about nature as unscientific and reactionary, and embraces advanced technologies, including taboo ones, like nuclear power and genetically modified organisms, as necessary to reducing humankind's ecological footprint.¹³⁹

There were and still are many "Romantic ideas about nature," widely varied ideas that developed and changed across Europe and North America throughout the eighteenth and nineteenth centuries. One can make a strong argument that the United States itself—or, at that time, themselves—grew directly out of "Romantic ideas about nature." Thomas Jefferson was an avid reader of James Thomson's poem *The Seasons* (1726; 1730), in which Nature, usually capitalized, appears frequently and figures centrally, and the influence on Jefferson is seen in the Declaration of Independence:

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.¹⁴⁰

Here Jefferson's appeal to what he calls the Laws of Nature and Nature's God is an appeal to an abstraction that authorizes and inaugurates what is authentic, valuable, and true. The Romantics worked within this foundational vision.

Do Pope Francis and ecomodernists mean to reject all romantic ideas about nature, including the ones that influenced Thomas Jefferson? The word "inalienable" appears four times in *Laudato Si'*, and although Jefferson did not invent it—his form of it was "unalienable"—he made it inseparable from the Declaration of Independence, which Francis echoes directly the last time he uses the word: "Underlying the principle of the

¹³⁹ Michael Shellenberger & Ted Nordhaus, *On Becoming an Ecomodernist: A Positive View of Our Environmental Future*, THE BREAKTHROUGH INST. (Sept. 4, 2014), <http://thebreakthrough.org/index.php/voices/michael-shellenberger-and-ted-nordhaus/on-becoming-an-ecomodernist> [https://perma.cc/2VPD-56JR].

¹⁴⁰ THE DECLARATION OF INDEPENDENCE para. 1 (U.S. 1776).

common good is respect for the human person as such, endowed with basic and inalienable rights ordered to his or her integral development.”¹⁴¹ Would Francis reject, for example, these statements from Emerson’s *Nature*: “It [nature] always speaks of Spirit. It suggests the absolute The aspect of Nature is devout. Like the figure of Jesus, she stands with bended head, and hands folded upon the breast. The happiest man is he who learns from nature the lesson of worship.”¹⁴² Would ecomodernists reject these statements from the same small book: “Nature, in its ministry to man, is not only the material, but is also the process and the result. All the parts incessantly work into each other’s hands for the profit of man”;¹⁴³ or these from a few pages later: “Nature is thoroughly mediate. It is made to serve. It receives the dominion of man as meekly as the ass on which the Savior rode.”¹⁴⁴ Francis and ecomodernists reject many of each other’s ideas, or what they might understand as each other’s ideas. They disagree, for instance, about the role that technology could and should play in solving environmental problems or about the value of utilitarianism. What is striking, and not without irony, is that they concur in their sweeping rejections of romanticism, when in fact they share much of importance with romanticism, specifically the romanticism of Emerson, Thoreau, and Muir.

E. Romantics, Optimists, Scientists, Pragmatists

Ecomodernists describe themselves as optimists about the future, allies of science, and resolute pragmatists.¹⁴⁵ Many find the combination of these attributes deeply attractive, especially as an alternative to doomsday prophecies of what some now call ecotastrophe. But ecomodernist optimism finds a precedent in the last sentence of Emerson’s *Nature*, for example. Having exhorted his readers, “Build therefore your own world,” he concludes, “The kingdom of man over nature, . . . —a dominion such as now is beyond his dream of God,—he shall enter without more wonder than the blind man feels who is gradually restored to perfect sight.”¹⁴⁶ What could sound more optimistic about the environmental

¹⁴¹ Pope Francis, *supra* note 1, ¶ 157.

¹⁴² Ralph Waldo Emerson, *Nature*, in RALPH WALDO EMERSON: THE MAJOR PROSE 61 (Ronald A. Bosco & Joel Myerson eds. 2015).

¹⁴³ *Id.* at 38.

¹⁴⁴ *Id.* at 51.

¹⁴⁵ See Asafu-Adjaye et al., *supra* note 34.

¹⁴⁶ Emerson, *Nature*, *supra* note 142, at 92, 96.

future? If Emerson's version of romantic optimism here is not enough, there are always the final sentences of Thoreau's *Walden*: "Only that day dawns to which we are awake. There is more day to dawn. The sun is but a morning star."¹⁴⁷ As for a friendly and productive connection with science, Emerson, Thoreau, and Muir got there first, too. Emerson traced the beginnings of his vocation to an epiphany on July 13, 1833, in the Cabinets of Comparative Anatomy at the Jardin des Plantes in Paris, where he had a vision of universal interrelatedness:

Here we are impressed with the inexhaustible riches of nature. The universe is a more amazing puzzle than ever, as you glance along this bewildering series of animated forms . . . Not a form so grotesque, so savage, nor so beautiful but is an expression of some property inherent in man the observer—an occult relation between the very scorpions and man. I feel the centipede in me,—cayman, carp, eagle, and fox. I am moved by strange sympathies. I say continually 'I will be a naturalist.'¹⁴⁸

Thoreau was a rigorous botanist, as was Muir, who also carried out studies in geology, focusing particularly on glaciers. The romantic ideas of all three of these men could never be detached—or, in the parlance of ecomodernism, "decoupled"—from science.

What about pragmatism? People who disparage an idea as "romantic" often mean simply that it is imaginative but not practical. In its long history, the word "romantic" begins by pertaining to the vernacular language of France (Romance, or in the manner of the Roman colonizers of Gaul), as opposed to the Latin of Rome itself. Eventually, by a series of associations and slippages, "romantic" has come to pertain to idealized, often eroticized, love between people. Meanwhile, it continues to designate a western mode of sensibility and expression that emerged during the eighteenth and nineteenth centuries. Exactly where in its long history "romantic" began to mean the supposed opposite of pragmatic is an open and intriguing question, one with pungent implications for the history of attitudes towards the French, towards certain kinds of art and philosophy, and towards human love. But romanticism was not the opposite of

¹⁴⁷ HENRY DAVID THOREAU, *WALDEN: A FULLY ANNOTATED EDITION* 325 (Jeffrey S. Cramer ed., Yale U. Press 2004).

¹⁴⁸ RALPH WALDO EMERSON, *JOURNALS OF RALPH WALDO EMERSON* 163 (Edward Waldo Emerson & Waldo Emerson Forbes eds., vol. 3, Riverside Press 1910).

pragmatism for Emerson or for the two people he influenced so greatly, Thoreau and Muir.

The philosophical principles underlying American Pragmatism were first formally enunciated by Charles Sanders Peirce in the 1870s and subsequently developed by William James and John Dewey. All three men acknowledged their debts to Emerson quite openly, but even if they had not made the link between Emerson and pragmatism so clear, myriad moments in Emerson's own writing demonstrate it. Here, for example, is an early statement in *Nature* about the problem of solipsism and its consequences for epistemology, or how we can confirm the truth of our sensory perceptions:

In my utter impotence to test the authenticity of the report of my senses, to know whether the impressions they make on me correspond with outlying objects, what difference does it make, whether Orion is up there in heaven, or some god paints the image in the firmament of the soul?¹⁴⁹

What difference does it make? It is hard to imagine a more practical, down-to-earth way to put the brakes on the endless accelerations of theoretical inquiry. What difference does it make? Let us get on with it. Or here is another, and more famous, instance of hard-headed practicality from a later essay, "Experience": "So . . . it is not what we believe concerning the immortality of the soul or the like, but *the universal impulse to believe*, that is the material circumstance and is the principal fact in the history of the globe"¹⁵⁰ (emphasis original). Emerson concludes the paragraph containing this sentence, which is the source of William James's later lecture title "The Will to Believe" (1896, 327–47), with this formulation of skeptical pragmatism: "For skepticisms are not gratuitous or lawless, but are limitations of the affirmative statement, and the new philosophy must take them in, and make affirmations outside of them, just as much as it must include the oldest beliefs."¹⁵¹

For Emerson, limitation—crucial to Francis's vision of integral ecology—was also a romantic idea and a necessary complement to freedom. His vision of limited affirmation or affirmative limitation surfaces in the rigorous pragmatism of Thoreau, who was much more than Emerson's

¹⁴⁹ Emerson, *Nature*, *supra* note 142, at 54.

¹⁵⁰ Ralph Waldo Emerson, *Experience*, in RALPH WALDO EMERSON: THE MAJOR PROSE, *supra* note 142, at 240.

¹⁵¹ *Id.*

disciple and puppet, whether Thoreau was improving the design of the pencil in his father's pencil workshop or working as a land surveyor or classifying plants growing near Concord, Massachusetts, or protesting the Mexican war by refusing to pay his poll tax or forwarding fugitive slaves on the Underground Railroad. It also surfaces in the life and writing of John Muir, whose pragmatism led to the Yosemite Grant of 1864 and the creation of Yellowstone National Park in 1872, precursor of all national parks in the world. Each of us is free to debate the anthropocentrism of setting aside parks or to theorize the wildness or wilderness, but beyond all the debate and theorizing the pragmatic question posed by Emerson remains: What difference does it make?

F. *Back to Beauty*

Muir's answer was, once again, a pragmatic one, and it returns us to beauty. In the opening chapter of *Walden*, which he called "Economy," Thoreau sets out to inventory "the gross necessities of life" and decides that "in this climate" of southern New England the gross necessities are food, shelter, clothing, and fuel.¹⁵² To this list Pope Francis adds clean water, both fresh water to drink and salt water to fish, with the word "water" appearing in *Laudato Si'* approximately the same number of times as "beauty" and its related forms.¹⁵³ But in its repeated references to beauty the encyclical implicitly affirms that beauty itself is "a necessary of life," not a luxury for the privileged,¹⁵⁴ and Muir would agree, as he declares in *The Yosemite*:

Everybody needs beauty as well as bread, places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike. This natural beauty-hunger is made manifest in the little window-sill gardens of the poor, though perhaps only a geranium slip in a broken cup, as well as in the carefully tended rose and lily gardens of the rich, the thousands of spacious city parks and botanical gardens, and in our magnificent National parks—the Yellowstone, Yosemite, Sequoia, etc.¹⁵⁵

¹⁵² THOREAU, *supra* note 147, at 11–12.

¹⁵³ See generally Pope Francis, *supra* note 1.

¹⁵⁴ *Id.*

¹⁵⁵ JOHN MUIR, *THE YOSEMITE* 256 (1912).

Behind this declaration of the inalienable right to satisfy beauty-hunger hovers a verse from the Bible, most of which Muir had by memory:

And he humbled thee, and suffered thee to hunger, and fed thee with manna, which thou knewest not, neither did thy fathers know; that he might make thee know that man doth not live by bread only, but by every word that proceedeth out of the mouth of the LORD doth man live.¹⁵⁶

In Muir's revision of this verse, spoken by Moses to the Israelites during the Exodus, here in the language of the King James Version, and later quoted by Jesus during his temptation in the wilderness, beauty is as necessary as the word of God.¹⁵⁷ Although Muir's early experiences in a congregation of the Disciples of Christ near Portage, Wisconsin, would not have aligned him with the Catholic catechism, Francis says something strikingly similar in *Laudato Si'*: "We were not meant to be inundated by cement, asphalt, glass and metal, and deprived of physical contact with nature."¹⁵⁸ Such statements have led ecomodernists to charge Francis with being anti-city, but he is not; he is against unhealthy cities where the poor suffer most and where they are deprived of means to satisfy their beauty-hunger: "Frequently, we find beautiful and carefully manicured green spaces in so-called 'safer' areas of cities, but not in the more hidden areas where the disposable of society live."¹⁵⁹

For Francis and for readers of the Catholic Bible, the immediate connection between God and the beauty of creatures and creation is explicitly stated in scripture in Wisdom 13:5: "Through the greatness and the beauty of creatures one comes to know by analogy their maker."¹⁶⁰ But Emerson, Thoreau, Muir, and readers of Protestant Bibles, whether Geneva (Bible of the Puritans) or King James (Bible of the Anglicans) or any of their descendants, including *The Green Bible*, would not have encountered this verse, as it belonged to what Protestants designate the Deuterocanonical Books or the Apocrypha.¹⁶¹ The word for beauty in Wisdom 13:5, transliterated as *kallonēs* (the genitive of *kallonē*), does not appear in the

¹⁵⁶ *Deuteronomy* 8:3.

¹⁵⁷ *Matthew* 4:4; *Luke* 4:4.

¹⁵⁸ Pope Francis, *supra* note 1, ¶ 44.

¹⁵⁹ *Id.* ¶ 45.

¹⁶⁰ *Wisdom* 13:5.

¹⁶¹ Greg Witherow, *Catholic vs. Protestant Bibles*, HOLY TRINITY PARISH, <http://www.holytrinityparish.net/wp-content/uploads/2014/11/Our-Catholic-Bibles.pdf> [<https://perma.cc/8F2C-LA9Z>].

New Testament. (The King James Version never uses “beauty” in the New Testament, and the New Revised Standard Versions uses it to translate other Greek words, and then only twice, once in James 1:11 and once in 1 Peter 3:4, but never in any of the four gospels). What is significant is that Emerson, Thoreau, and Muir, without the scriptural authority on which Francis asserts the necessity of beauty, arrived at a recognition of that necessity nevertheless, as we see clearly, for example, in the third section of Emerson’s *Nature*, which he titles “Beauty”;¹⁶² in Thoreau’s argument in the essay “Huckleberries” for the preservation of natural beauty, which has “a high use”;¹⁶³ and in Muir’s statement from *The Yosemite*, quoted above.¹⁶⁴ Some might call their high valuation of beauty “romantic,” but if so, it is important to bear in mind that this aspect of romanticism leads back to Plato and Platonism, so important to the Hellenistic thought that influenced the Wisdom of Solomon.¹⁶⁵

Beauty asserts itself in the literature of contemporary environmentalism. Although White does not mention “beauty,” both Carson and Leopold do. To fellow female journalists, Carson extolled the human need to be in touch with earth’s “beauties.”¹⁶⁶ In his iconic formulation of the “land ethic,” Leopold gave “beauty” a central function alongside the more scientifically based considerations of “stability” and “integrity.”¹⁶⁷ “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community.”¹⁶⁸ The experience of beauty in nature is a lynchpin of the modern environmental sensibility, even as the idea of nature is often being deconstructed. Although he provocatively questioned the idea of wilderness, sacrosanct to many environmentalists, environmental historian William Cronon felt compelled to reaffirm his allegiance to “the beauty and power of the things [wilderness] contains.”¹⁶⁹

But in the end, what difference does it make? What matters is that, romantic or not, these American writers and their twentieth-century

¹⁶² Emerson, *Nature*, *supra* note 142, 39–43.

¹⁶³ Henry David Thoreau, *Huckleberries*, in HENRY DAVID THOREAU: COLLECTED ESSAYS AND POEMS 468, 496 (Elizabeth Hall Witherell ed., 1998).

¹⁶⁴ See MUIR, *supra* note 155, at 256.

¹⁶⁵ See Stella Lange, *The Wisdom of Solomon and Plato*, 55 J. OF BIBLICAL LIT. 293, 294–97 (1936).

¹⁶⁶ RACHEL CARSON, LOST WOODS: THE DISCOVERED WRITINGS OF RACHEL 159 (Linda Lear ed., 1998).

¹⁶⁷ LEOPOLD, *supra* note 73, at 240.

¹⁶⁸ *Id.*

¹⁶⁹ William Cronon, *The Trouble with Wilderness, or Getting Back to the Wrong Nature*, in UNCOMMON GROUND: TOWARD REINVENTING NATURE 69, 70 (William Cronon ed., 1995).

successors anticipated Francis. For them beauty is not a bonus, an add-on, a frill, a lagniappe, nor is it superficially cosmetic, despite trivializing everyday idioms and sayings (e.g., “beauty is only skin-deep”; Fiorello La Guardia’s “When I make a mistake, it’s a beaut”) or secular associations with beauty parlors, beauty contests, and beauty sleeps. Beauty is spiritually imperative, or in the pragmatic language of Emerson, the universal impulse toward beauty is spiritually imperative. Inescapably vague and abstract as the term “beauty” may feel to some, for many of the writers we have discussed it signifies the secular equivalent of holiness and inspires the secular equivalent of reverence. Even pragmatic ecomodernism agrees. In *Break Through: From the Death of Environmentalism to the Politics of Possibility*, their 2007 book-length account of ecomodernism, Ted Nordhaus and Michael Shellenberger style themselves “lovers of beauty” and argue that while there is much from the environmentalist repertoire that must be discarded, beauty must not be.¹⁷⁰ Although beauty appears only once in *An Ecomodernist Manifesto*, dated April 2015, two months before the publication of *Laudato Si’*, it is there, too:

Accelerated decoupling alone will not be enough to ensure more wild nature. There must still be a conservation politics and a wilderness movement to demand more wild nature for aesthetic and spiritual reasons. Along with decoupling humankind’s material needs from nature, establishing an enduring commitment to preserve wilderness, biodiversity, and a mosaic of beautiful landscapes will require a deeper emotional connection to them.¹⁷¹

For Emerson, Thoreau, Muir, and their successors, including Leopold and Carson; for Francis and those who accept the teachings of his encyclical; and perhaps for ecomodernists, beauty is a necessity, a basic practical necessity for the rich, the poor, and those in the middle. It is also an emotional lever, a means of re feeling, a motivator that can animate individual and collective action. Yes, there are differences among these groups, but where there is fundamental agreement, let synthesis advance and let public policy reflect the congruence.

¹⁷⁰ TED NORDHAUS & MICHAEL SHELLENBERGER, *BREAK THROUGH: FROM THE DEATH OF ENVIRONMENTALISM TO THE POLITICS OF POSSIBILITY* 92 (2007).

¹⁷¹ Asafu-Adjaye et al., *supra* note 34, at 27.

III. WHAT DO WE DO NOW: OF CHANGE

Both Lynn White and Pope Francis assume the efficacy of religious teaching in shaping attitudes and behaviors affecting the environment. For White, religious ideas and values are the cause of our “environmental crisis” as well as potentially its cure. For Pope Francis a correct religious understanding of the human-nature relationship can heal the wounds of “our Sister, Mother Earth.”¹⁷² This causal linkage is not undisputed. Several years after “Historical Roots,” White himself acknowledged that “[n]o sensible person could maintain that all ecologic damage is, or has been, rooted in religious attitudes.”¹⁷³ Bron Taylor and his co-authors conducted an exhaustive review of post-“Historical Roots” literature on the effect of religion on beliefs, values, and actions affecting the environment, with particular attention to empirical quantitative studies.¹⁷⁴ They summarize the results of this study as follows:

It is indeed reasonable to wonder if White’s insistence that the “Judeo-Christian” tradition bears a large share of responsibility for the environmental crisis overstated the role of religion in general and the religious traditions he targeted in particular. That White did not provide every qualification and nuance that might have been made in a more detailed study, however, does not mean that the main thrust of his argument is invalid. Our review of the empirical research since he published his influential argument suggests that he was on the right track and that religion does influence environmental attitudes and behaviors.¹⁷⁵

Taylor’s synthesis suggests that religious doctrine may affect environmental attitudes and behaviors but that it is not the only causal factor. It also suggests that the relationship between religious doctrine and the larger culture is reciprocal: not only can Church beliefs and values shape environmental beliefs and values in secular culture, as White argued in

¹⁷² Pope Francis, *supra* note 1, ¶¶ 1–2.

¹⁷³ Lynn White, Jr., *Continuing the Conversation*, in *WESTERN MAN AND ENVIRONMENTAL ETHICS: ATTITUDES TOWARD NATURE AND TECHNOLOGY* 55, 57 (Ian G. Barbour ed., 1973); see Jenkins, *supra* note 31, at 285–90 (discussing this aspect of White’s thesis).

¹⁷⁴ See generally Bron Taylor et al., *Lynn White Jr. and the greening-of-religion hypothesis*, 30 *CONSERVATION BIOLOGY* 1000 (2016).

¹⁷⁵ *Id.* at 1006.

“Historical Roots,” but the ambient culture can also affect religious beliefs and values concerning nature, as we have sought to demonstrate in our analysis of the influence of canonical environmentalist texts on the greening of Church doctrine in *Laudato Si'*.

“In the end,” White wrote, “one returns to value structures.”¹⁷⁶ Values structures include religious belief but are not limited to it.¹⁷⁷ They are also a cause of environmental change but not the only cause.¹⁷⁸ Sociologist and environmental science and policy expert Thomas Dietz writes that “values are a well-developed and well-researched concept in social sciences and are at the core of much of our understanding of environmental concern.”¹⁷⁹ They are “concepts and beliefs” that are part of our cultural store or ethos and that “guide selection or evaluation of behavior and events.”¹⁸⁰ They affect, and are affected by, social, political and economic systems, and are also implicated in our direct interactions with natural systems.¹⁸¹ It is certainly plausible, if not at this point demonstrable, that in announcing a new Franciscan era in the environmental views of the Church, *Laudato Si'* might influence not only the environmental views of Church members but the collection of beliefs and values within the larger culture through which we process environmental concerns.

There is some early evidence of a “Francis effect” on the way the public views environmental issues. On the specific question of global warming addressed by Pope Francis, for example, a November 2015 survey jointly conducted by climate change communication projects at Yale and George Mason Universities showed that after the encyclical a belief that “Americans will be harmed [by climate change] increased by 9 percentage points among the total population, and by 13 points among Catholics.”¹⁸² The authors of the survey also found that “[m]ore Americans (+7 points) and more Catholics (+8 points) say that the issue of global warming has

¹⁷⁶ White, *Continuing the Conversation*, *supra* note 173, at 58.

¹⁷⁷ *See id.* at 57–58.

¹⁷⁸ *See id.*

¹⁷⁹ Thomas Dietz, *Bringing values and deliberation to science communication*, 110 PNAS 14081, 14081 (2013).

¹⁸⁰ *Id.*

¹⁸¹ Jonathan Z. Cannon, *Have We Glimpsed the Environmentalist Future in Paris?—Toward a Theory of Change*, 129 HARV. L. REV. F. 274, 275–77 (2016), <http://harvardlawreview.org/2016/04/have-we-glimpsed-the-environmentalist-future-at-paris-toward-a-theory-of-change/> [<https://perma.cc/97R8-TZTC>].

¹⁸² Edward Maibach et al., *The Francis Effect: How Pope Francis Changed the Conversation About Global Warming* 20, GEO. MASON U. CTR FOR CLIMATE CHANGE COMM. (2015), http://environment.yale.edu/climate-communication-OFF/files/The_Francis_Effect.pdf [<https://perma.cc/7427-FKEW>].

become extremely or very important to them.”¹⁸³ A more recent study, focused on the effects of the encyclical on Catholics in the U.S., showed that knowledge of *Laudato Si'* increased concerns about climate change among liberal Catholics, but caused conservative Catholics to discount the Pope’s views on climate in response to conservative cultural values (or “political leanings”).¹⁸⁴ The authors did find evidence to suggest, however, “that conservative Catholics may be less willing to denigrate the Pope’s credibility on climate change than conservative non-Catholics.”¹⁸⁵

These data suggest that the Pope’s teachings—at least in the immediate aftermath of the encyclical—contributed to greater public concern on the climate change issue in some sectors of society (those already disposed to have concern) but not in others (those already disposed to discount concern). They also show that cultural values associated with resistance to the climate science continue to have a strong orienting power in the face of the encyclical, even among Catholics. The encyclical, by itself, will not produce the cultural shift necessary for significant and lasting change in our collective response to issues such as climate change. The real test of *Laudato Si'* as an instrument of change is whether it can combine effectively with other strains of social thought and practice that together can challenge the “particular ethos and way of life that underpins” the status quo.¹⁸⁶ Our analysis suggests that it can, and that its contribution to cultural change in the longer term could be a meaningful one.

IV. A QUESTION OF INFLUENCE—THE CHANGE POTENTIAL OF *LAUDATO SI'*

In “Climate Change, Responsibility and Justice,” environmental philosopher Dale Jamieson explores potential sources of moral and political responsibility for addressing climate change, that most daunting of environmental challenges. He concludes that “respect for nature” offers a value that “should motivate people to acknowledge a responsibility to respond to climate change.”¹⁸⁷ The duty to respect nature is difficult to define, Jamieson concedes, but it is violated by an ethos of human mastery.¹⁸⁸

¹⁸³ *Id.* at 26. See also Bron Taylor’s discussion of related surveys in Taylor et al., *supra* note 10.

¹⁸⁴ Nan Li et al., *Cross-Pressuring Conservative Catholics? Effects of Pope Francis’ encyclical on the U.S. public opinion on climate change*, 139 CLIMATE CHANGE 367, 376–78 (2016).

¹⁸⁵ *Id.* at 377.

¹⁸⁶ Melissa Lane, *Political Theory on Climate Change*, 19 ANN. REV. POL. SCI. 107, 114 (2016).

¹⁸⁷ Dale Jamieson, *Climate Change, Responsibility and Justice*, 16 SCI. ENG’G ETHICS 431, 440 (2010).

¹⁸⁸ *Id.* at 442.

Respect for nature and human domination of nature are moral opposites for Jamieson, in much the same way they are for Pope Francis and Aldo Leopold, albeit from vastly different cosmological perspectives. Respect for nature “need not be based on a morally extravagant view such as biocentrism or ecocentrism” and could have a diversity of sources, including the recognition that humans are better off respecting nature, that respecting nature gives meaning to our lives, and that it is necessary for our psychological health or wholeness.¹⁸⁹ But Jamieson leaves open how respect for nature would be defined or what it “could come to.”¹⁹⁰

Laudato Si' begins to fill the space that Jamieson leaves open with his phrase “respect for nature.” Using the theological resources at his disposal, Pope Francis justifies the existence of a duty to respect nature, affirming that God values all of creation. He outlines the content of that duty, which is to act with care and humility toward non-human nature. Finally, he develops the affective and aesthetic resources that could motivate people to act in accordance with that duty out of “love,” “awe,” “gratitude,” and “beauty.” *Laudato Si'* is not the only plausible account of a respect for nature, which Jamieson envisions as having a plurality of sources. It is, however, potentially an important one. It puts the moral considerability of nature in the mainstream of the largest religious denomination in the world, provides a rationale for it that is not dependent on the “extravagant view” of ecocentrism or biocentrism, and connects it with social justice concerns through the concept of integral ecology.¹⁹¹ In all these respects, the Pope’s articulation can help broaden and deepen the appeal of “respect for nature” as it struggles for purchase in the contemporary culture. Jamieson himself praised the encyclical as the “first really important environmental text of the twenty-first century”—important because “there is no one on earth who commands more attention,” because the document succeeds in putting 30 years of “environmental philosophy . . . in the context of Catholic moral theology,” and because it does so with “rhetorical brilliance.”¹⁹²

The question is whether *Laudato Si'* will realize this transformative potential. The immediate reviews of the encyclical were mixed. Welcomed by many, including environmentalists, social justice advocates, and political liberals, it received a critical reception at the hands

¹⁸⁹ *Id.* at 440–43. See also Li et al., *supra* note 184, at 378 (“[T]o increase climate change concerns, other moral foundations should be recognized.”).

¹⁹⁰ Jamieson, *supra* note 187, at 443.

¹⁹¹ Pope Francis, *supra* note 1, ¶ 49.

¹⁹² Dale Jamieson, *Why Laudato si' Matters*, ENV.: SCI. AND POL'Y FOR SUSTAINABLE DEV. 19, 19–20 (2015).

of others, including public policy analysts, economists, and political conservatives. Critics accused Pope Francis of misunderstanding the role of markets and technology in human well-being—and, not incidentally, in solving climate change.¹⁹³ They also charged him with joining the “radical fringes of modern environmentalism,” “giving vent to a deeply felt . . . reactionism, anti-modernism and anti-capitalism,”¹⁹⁴ and allowing his call for a new ecological spirituality to be diminished by a “tendency to devolve into leftist policy positions.”¹⁹⁵ It may be possible, however, to separate the moral framework of the encyclical from the economic and policy elements that came in for the bulk of the criticism. Commentator David Montgomery, for example, who dismissed the Pope’s analysis of markets, nevertheless endorsed the Pope’s call for a “spiritual transformation that would support action on behalf of the poor and our common home.”¹⁹⁶

Laudato Si' has come in for particularly harsh criticism by the would-be reformers of the environmental movement, the ecomodernists. The release of *An Ecomodernist Manifesto* shortly before the encyclical was perhaps related to the Pope’s widely anticipated pronouncements on the environment. Three of its authors attacked the Pope’s teaching as reflecting the “asceticism, romanticism and reactionary paternalism inherent in many aspects of traditional environmentalist thinking.”¹⁹⁷ They offered their alternative paradigm, progressive and optimistic, about the potential of economic growth and technological development to improve environmental conditions and alleviate world poverty, and free of the moral model of sin and redemption that, in their view, characterize the teaching of both the Church and traditional environmentalist thinking.

But there is more room for dialogue between the Pope and the ecomodernists than might first appear. We have already analyzed their common emphasis on beauty in environmental considerations. Ecomodernists

¹⁹³ William Nordhaus, *The Pope & the Market*, THE N.Y. REV. OF BOOKS (Oct. 8, 2015), <http://www.nybooks.com/articles/2015/10/08/pope-and-market> [https://perma.cc/DSW9-GE3W].

¹⁹⁴ Yuval Levin, *Francis and the Greens*, NAT’L. REV. (June 24, 2015), <http://www.nationalreview.com/corner/420261/francis-and-greens-yuval-levin> [https://perma.cc/A9XH-9FC3].

¹⁹⁵ Doug Bandow, *In Calling on Government, the Pope Underestimates Power of the Market*, CATO INST. (June 23, 2015), <http://www.cato.org/blog/calling-government-pope-underestimates-power-market> [https://perma.cc/MQ7H-8F4Y].

¹⁹⁶ David W. Montgomery, *The Flawed Economics of Laudato Si'*, THE NEW ATLANTIS 31, 42 (2015).

¹⁹⁷ Mark Lynas et al., *A Pope Against Progress*, MARK LYNAS: ENV’T’L NEWS AND COMMENT (June 20, 2015), <http://www.marklynas.org/2015/06/a-pope-against-progress/> [https://perma.cc/VH7B-BH7Z].

might also agree with the importance of developing a “respect for nature” as proposed by Jamieson and advanced, from his particular theological perspective, by Pope Francis. In an earlier essay, Nordhaus and Shellenberger ridiculed the notion that “a common connection to nature might allow us to overcome our divisions and transcend the essential messiness of politics.”¹⁹⁸ But in the more recent *Ecomodernist Manifesto*, they seem to profess just such a value by citing the foundational role of their “deep love and emotional connection to the natural world.”¹⁹⁹ This connection, they claim, is important for people’s “psychological and spiritual well-being,” “getting outside themselves,” and connecting with “their deep evolutionary history.”²⁰⁰ These are among the possible justifications Jamieson offers for a duty to respect nature; they are not inconsistent with the Pope’s imagining “a kind of salvation which occurs in beauty and those who behold it” and its contribution to an “authentic humanity . . . in the midst of our technological culture.”²⁰¹

In their response to *Laudato Si'*, Lynas, Nordhaus, and Shellenberger were particularly critical of the Pope’s alleged technophobia and pervasive sense of limits on the material abundance of the earth. As we have described, while skeptical of what he sees as the uncritical deification of technological progress and economic growth, Pope Francis welcomes technological applications that will improve human lives, particularly those of the poor, while protecting our “common home.”²⁰² Pope Francis does emphasize limits, associated with the sense of “crisis,” or a world on the brink of ruin.²⁰³ In the fortunate eyes of those whose surroundings do not fit his description, he may have overdone it with his picture of “[t]he earth, our home, [as] beginning to look more and more like an immense pile of filth.”²⁰⁴ But the contrasting assumption of abundance that underlies the techno-optimism of the ecomodernists has also come under criticism, including from those otherwise sympathetic to the ecomodernist enterprise. Bruno Latour, a celebrated sociologist

¹⁹⁸ Ted Nordhaus & Michael Shellenberger, *The Green Bubble*, NEW REPUBLIC (May 20, 2009), <https://newrepublic.com/article/62327/the-green-bubble> [<https://perma.cc/8DXT-NNBS>].

¹⁹⁹ Asafu-Adjaye et al., *supra* note 34, at 25.

²⁰⁰ *Id.*

²⁰¹ Pope Francis, *supra* note 1, ¶ 112.

²⁰² Emily Miller, *Pope Francis embraces technology in an unexpected TED Talk*, RELIGION NEWS SERV. (Apr. 25, 2017), <http://religionnews.com/2017/04/25/pope-francis-embraces-technology-in-an-unexpected-ted-talk/> [<https://perma.cc/PM83-77MA>].

²⁰³ See Pope Francis, *supra* note 1, ¶¶ 13–16.

²⁰⁴ *Id.* at ¶ 21.

and anthropologist of science and technology, wrote a favorable review of *Break Through*, a portion of which became an essay posted on the Break Through website under the title “Love Your Monsters: We Must Care for Our Technologies As We Do Our Children.”²⁰⁵ In that piece, Latour argued that humans should take responsibility for technology rather than disowning it, recalling the example of Victor Frankenstein who abandoned his creation with disastrous consequences: technology will behave if we embrace it.²⁰⁶ More recently, however, Latour has taken the ecomodernists to task for ascribing agency only to humans and ignoring the “reaction of the earth system to our action.”²⁰⁷ The “reaction of the earth system,” a phrase which functions as Latour’s preferred circumlocution for the discredited term “nature,” defines the “limits” stressed by Pope Francis and traditional environmentalists. “This is what makes Pope Francis’ *Laudato Si!* [sic] so refreshing by comparison,” Latour concludes. “It does take seriously what it means to live ‘at the end of time.’ And in its redistribution of agency, it does add ‘our Sister, Mother Earth.’”²⁰⁸ In the last analysis the debate between limits and technology may be less a matter of mutual exclusion and more a matter of degree.

The Pope offers a vision of restraint and sacrifice inspired by love and gratitude; the ecomodernists, expansion and abundance unfettered by self-denial. The move that allows the ecomodernists to claim to have it all is the decoupling of human well-being from economic activity that harms the environment. As population stabilizes, as people continue to congregate in cities, and as technology enables more intense and efficient use of land and other natural resources, we will be freed to “re-wild and re-green the Earth—even as developing countries achieve modern living standards, and material poverty ends.”²⁰⁹ The ecomodernist motto is “Nature unused is nature spared.”²¹⁰ Even if one finds this vision plausible and appealing, it will not be spontaneously realized, as the ecomodernists themselves admit.²¹¹ It requires application of values, and for its full realization those values will have to include aesthetic and spiritual

²⁰⁵ Bruno Latour, *Love Your Monsters: We Must Care for Our Technologies As We Do Our Children*, THE BREAKTHROUGH INST. (2012), <http://thebreakthrough.org/index.php/journal/past-issues/issue-2/love-your-monsters> [https://perma.cc/YC8L-5F7T].

²⁰⁶ *Id.*

²⁰⁷ Bruno Latour, *Fifty Shades of Green*, 7 ENVTL. HUMAN. 219, 224 (2015). We thank Austin Hetrick for bringing this essay to our attention.

²⁰⁸ *Id.*

²⁰⁹ Asafu-Adjaye et al., *supra* note 34, at 14.

²¹⁰ *Id.* at 19.

²¹¹ *Id.* at 29.

considerations in addition to purely utilitarian ones. What technologies offer least harm to the nature we want to protect or restore, and how do we assure that they are developed and deployed? How do we decide which nature is not needed for our use, and how do we assure that it is spared? What places are important to “re-wild and re-green,” and how do we go about making them wild and green again? Answering these questions requires collective choices, and those choices will reflect values. It is here that the Pope’s moral reasoning—his extended meditation on what the duty of respecting nature might mean—can have an influence, even within the seemingly hostile frame of ecomodernism. At the end of his thoughtful and revealing essay on Pope Francis and the ecomodernists, Brendon Foht puts it this way: “Despite some of the tensions between their positions, the moral seriousness of Pope Francis and the technological ingenuity of the ecomodernists will both be needed to move us beyond the fruitless debates that characterize so much of environmental politics today.”²¹²

The trajectory of change in social beliefs and values about the environment is highly uncertain. Cultural change happens slowly, it is said, except when it happens quickly. The emergence and content of a value, such as respect for nature, are a function of a number of interdependent factors: the values discourse within a society; the expression and implementation of values within legal and political systems; the operation of technologies, markets, and other forms of social practice; and the response of natural systems to human actions.²¹³ If one believes, as Pope Francis does, that we are in an environmental crisis with serious social implications, or in a social crisis with serious environmental ones, changes in our values and behavior are essential to human flourishing as well as to natural systems.²¹⁴ Perceived environmental “crises” of the 1960s and 1970s, such as urban smog, the burning of the Cuyahoga River, and the toxic waste disaster at Love Canal, helped drive the flowering of the modern environmental movement and the values associated with it. The environmental challenges of today—climate change, biodiversity loss, and ocean degradation—could stimulate a broadening and deepening of those values on a global scale.

In her book *The Big Ratchet*, Ruth DeFreis portrays natural crisis affecting humans as “the hatchet,” which is then followed by a response, “the pivot,” in which humans find new ways to use the resources of the

²¹² Foht, *supra* note 103, at 66.

²¹³ Cannon, *supra* note 181, at 275; Jenkins, *supra* note 31, at 292.

²¹⁴ See Pope Francis, *supra* note 1, ¶ 24.

earth, moving past the crisis and opening a new era of human flourishing.²¹⁵ DeFreis is non-committal on whether climate change will be “truly catastrophic” for our species. But the disruption of “the expectation of the stable Holocene climate—the climate that has prevailed since humans transitioned to farmers”—and other natural backlashes from our unprecedented manipulations of nature are nascent “pivots” that could stimulate new modes of resource use.²¹⁶

Even for one who sides with the ecomodernists, denying that we are in crisis, an evolution in values and associated behaviors may still be a priority. The ecomodernists declare that the accelerated decoupling from nature they urge “draws more on spiritual or aesthetic than on material or utilitarian arguments.”²¹⁷ Indeed, in the absence of an immediate material crisis—DeFreis’s hatchet—to force change, a values transformation may be indispensable to their enterprise. Rather than dismissing the Pope’s encyclical as a recycling of the traditional environmentalist worldview they reject, ecomodernists might search in it instead for the seeds of the cultural change essential for their own enterprise. And at least one of them has. An environmental studies professor, signatory of the *Ecomodernist Manifesto*, and Break Through Senior Fellow, Roger Pielke wrote separately on the *Laudato Si'*. He called critical attention to what he viewed as inconsistencies in the application of religious doctrine to technological and economic issues, but he also praised the Pope for having “done the world a service by helping us to see that our choices about technology and economic growth are part of a deeper set of questions focused on what kind of world we wish to live in together.”²¹⁸ Because of his platform as head of a powerful religious denomination, his personal stature, and the depth and richness of the traditions from which he speaks, the Pope’s words are likely to be influential on these questions. But as Pope Francis himself suggests with his repeated invitation to dialogue, neither his nor any religious voice will be solely determinative in what is now, of necessity, a global discourse.²¹⁹

It may be difficult to project success for a social and political movement driven by a concept of beauty or a duty to respect nature. And why should such a movement offer success now, when its cultural predecessors

²¹⁵ RUTH DEFRIES, *THE BIG RATCHET: HOW HUMANITY THRIVES IN THE FACE OF NATURAL CRISIS* 4 (2014).

²¹⁶ *Id.* at 196–97.

²¹⁷ Asafu-Adjaye et al., *supra* note 34, at 25.

²¹⁸ Pielke, *supra* note 103.

²¹⁹ Pope Francis, *supra* note 1, ¶ 15.

have had limited success in transforming culture? As our review has shown, the centrality of beauty in the valuing of nature is nothing new, except in the realm of papal teaching; nor is the recognition that non-human nature has moral standing beyond merely utilitarian or prudential considerations. What may be new is the depth and extent to which these tenets are taking root in diverse sectors of society, perhaps in part because of an increased sense of global crisis, whether we describe that crisis with Latour's "reaction of the earth system to our action" or Francis's groaning of "our Sister, Mother earth."²²⁰ As Bron Taylor asserts based on his study of green religious movements in the U.S. and abroad, "Worldview transformation is underway around the world as a means to greater pro-environmental policies and behaviors."²²¹ Pope Francis's encyclical both reflects that transformation and strengthens it.

In his remarks on *Laudato Si'* Bruno Latour challenged the ecomodernists with this trenchantly pragmatic conclusion: if you have a real political movement, you need to be able to tell me who your friends and your enemies are.²²² We can say now who the enemies of the emerging worldwide ecumenical environmental movement are. They are people who resist the deepening of our ethical and affectional ties to nature as a necessary if not sufficient condition for an acceptable future. They are people who are unwilling to consider what a duty to respect nature might require in our present circumstances. They are people who fail to see human history as an integral part of the larger geostory.²²³ Called as we are by Francis and his tradition to love our enemies, we can begin by thanking them for this timely opportunity to ally traditional environmentalists, ecomodernists, religious believers, secular upholders of beauty, advocates for social justice, and all people of environmental good will.

²²⁰ Latour, *supra* note 207, at 224.

²²¹ Taylor et al., *supra* note 10, at 353–54.

²²² Latour, *supra* note 207, at 224.

²²³ *Id.* at 223.