

Denaturing Nature

CHRISTIANA Z. PEPPARD

INTRODUCTION

Nature is a ubiquitous and powerful word that has been significant for understanding and endorsing forms of being and relationship throughout Western history. However, nature's meanings—especially the social-relational significations that it carries—have varied over time, according to a range of contexts and “controlling images.”¹ Nature is decidedly historical. Its myriad interpreted forms have increasingly become a topic of analysis.²

Since nature is neither self-evident nor monolithic, recently scholars in the humanities and sciences have labored to describe what nature is, and how its significance does—or should—manifest in the proceedings of human affairs. The result is a matrix of versatile, wiggly interpretations. The meanings of nature and their consequences are informed by variations historical, methodological, and conceptual. A contemporary molecular biologist's conception of nature, for example, will not necessarily align with—and may even contradict—the notion of nature as explicated in the thirteenth century by Thomas Aquinas. Such embedded diversity suggests that we must continually discern not only *what* historical circumstances and conceptual frameworks have shaped our understanding, but also *how* the concept of nature continues to be deployed in the present day—and with what consequences for our thinking, acting, and social existence.³ We will find that the concept of nature is a polyvalent resource, one that is simultaneously promising and dangerous, and which should therefore be invoked carefully and wisely. The recognition of nature's historicity should also prompt us to ask what else has been

1 The term is Carolyn Merchant's in *The Death of Nature: Women, Ecology, and the Scientific Revolution* (New York: HarperOne, 1990). Representations of nature have been an important part of feminist critique as well as environmental criticism in the past several decades.

2 See, for example: Carolyn Merchant, *The Death of Nature*; Lorraine Daston, “The Nature of Nature in Early Modern Europe” (*Configurations* 6[2], 1998: 149-172); Kate Soper, *What is Nature? Culture, Politics, and the Non-Human* (Oxford: Blackwell, 1995); John Habgood, *The Concept of Nature* (London: Darton, Longman and Todd, 2002); Neil Evernden, *The Social Creation of Nature* (Baltimore: Johns Hopkins University Press, 1992); Michael E. Soule and Gary Lease (eds.), *Reinventing Nature? Responses to Postmodern Deconstruction* (Washington, D.C.: Island Press, 1995); Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (Cambridge: Harvard University Press, 2007).

3 A classic example is found in the long and enduring conviction that natural or essential differences between male and female sexes directly correlate to gender, which in turn indicates the most perspicuous (and, in some interpretations, morally obligatory) forms of civil and domestic divisions of labor. Throughout the history of philosophical and theological reflection, the inferior status of what Simone de Beauvoir famously termed “the second sex” has hardly been argued for as much as assumed to be a self-evident, natural condition that justifies all manner of consequences, most of them inequitable, unjust, and based on the comforts of convention. Of course, one can argue (as many have) that these constructions were simply products of their time—which is, in this essay, precisely the point.

unseen in the past—occluded, perhaps, by dynamics of power, privilege, patriarchy, or fear. What continues to remain invisible in the present, due to uninterrogated ideas about nature?

In the natural sciences, the transitive verb “denature” means “to modify the molecular structure of” entities such as proteins and DNA, “so as to destroy or diminish some of the original properties and especially the specific biological activity.”⁴ It is a convenient biochemical image of deconstruction. To “denature” nature within the discourse of theology and ethics, then, is to activate the slow and steady dissolution of reified, uninterrogated assumptions; and to change the structures of our discourse regarding this complicated term, such that it can no longer function invisibly. This essay embarks upon that task in three movements. First, I chart an abbreviated history of nature (which could be vitally expanded at every point), in order to survey the breadth of meaning historically attributed to the term. Second, I delineate several highly influential paradigms that shape contemporary discourse about nature. Finally, I describe how contemporary critical theories are interrogating the term in ways that offer important insights, and I explore their theological and ethical significance in the context of natural law theory.

AN ABBREVIATED NARRATIVE HISTORY OF NATURE

Grace, Nature, and Creation

The category of nature has been extremely important for Christian theology. A longstanding theological distinction between nature and grace points to the disjuncture between the realms of sin and redemption. Augustine, for example, maintained in his treatise *On Nature and Grace* that the status of nature is murky and under suspicion, insofar as the natural world is the realm of the abuse of human freedom in the Fall. Within this realm of fallen nature, human ways of seeing and knowing are opaque and fraught with illusion. This situation stands in stark and enduring contrast to the fullness of knowledge conveyed by grace, or revelation. And yet he and subsequent theologians have defended the possibility that, in certain circumstances, revelation can be read in “two books”—that of Scripture as well as that of nature, or creation.⁵ Imbuing his *Summa Theologiae* with insights from Aristotelian philosophy, Aquinas suggested that nature refers both to the discernible features of the created order as well as to the essence and proper powers of a being, understood in light of the ultimacy of God as both creator and telos.

Aquinas’s optimism regarding what could be discerned about ultimate realities and morality through the powers of reason operating on the substance of the natural, created world has not been roundly endorsed. During and after the Reformation, Protestant theologians in particular have steadily expressed skepticism about humans’ ability to use knowledge of the world towards discernment of

⁴ <http://www.merriam-webster.com/dictionary/denature>

⁵ The origin of the metaphor may be a commentary of Augustine to Psalm 45:4: “The pages of divine scripture are open for you to read, and the wide world is open for you to see. Only the literate can read the books, but even the illiterate can read the book of the world” (*The Works of Saint Augustine, Part III, Volume 16: Exposition of the Psalms*, 33-50, trans. and notes by Maria Boulding [Hyde Park, NY: New City Press, 2000], 315).

the good. This skepticism has been based primarily on a wariness of the debilitating epistemic effects of sin, coupled with an emphasis on the primacy of Scripture and other forms of special revelation. Natural theology and natural law have been viewed as unpromising modes of discernment by comparison.⁶ However, recent scholarship also indicates how John Calvin dealt in more complex and varied ways with the concept of nature than was acknowledged by Karl Barth's influential interpretations.⁷ (The forthright title of Barth's vigorous "NO!" to the suggestions of Emil Brunner and *la nouvelle theologie*, as well as the contents of his 1937-38 Gifford Lectures, indicate where Barth stood on the issue of natural law and natural knowledge of God.)

In present day theology and ethics, nature *means* in other ways—not always related to the nature/grace distinction. In ecological theology and environmental ethics, the terms "nature" and "creation" are often used as interchangeable descriptions. They refer to the environment as a global, created, material totality, including flora and fauna.⁸ In philosophical theology and ethics, the invocation of nature tends towards the metaphysical. It can, for example, refer to the descriptive features and proper powers of particular kinds of beings (as suggested by terms like "human nature") and to the order of relationships (such as those between God and humans, God and creation, and so forth).

EPOCHAL SHIFTS: THE SCIENTIFIC REVOLUTION

Most scholars would agree that, in the West, an epochal shift in the dominant societal understanding of nature occurred at the time of the Enlightenment and Scientific Revolution. During this era, discernible events and ideas took root that became decisive in the long term. Nature came to be regarded as a disordered, non-purposive, seemingly infinite cache of raw materials, subject to empirical analysis, and mobilized towards productive human use in ways that eventually gave

6 Contemporary Protestant expositors such as Stanley Hauerwas have continued to emphasize the importance of revelation within communities of (Christian) character as superior moral approaches to natural law, frequently recommending instead discipleship and formation in the virtues. See Hauerwas, *With the Grain of the Universe: The Church's Tradition and Natural Theology* (Grand Rapids: Brazos Press, 2001).

7 Especially in the *Institutes of the Christian Religion*, Calvin's treatment of the natural knowledge of God in volume one seems to allow for some type of participation of "natural reason" in discernment about God and the good. Later, great emphasis is placed on the effects of original sin, the importance of God's revealed moral law, and the vital dynamic of sanctification and justification. But the ways in which Calvin explored natural reason and knowledge of God are arguably broader than dominant interpretations of the twentieth century. For example, philosopher Stephen Grabill has recently argued that Calvin made much more room for the possibility of natural knowledge of God and for natural law than has previously been acknowledged (Stephen Grabill, *Rediscovering the Natural Law in Reformed Theological Ethics* [Grand Rapids: Eerdmans, 2006]).

8 Several ethicists, especially those whose work extends beyond communities of Christian theological discourse, have flagged important distinctions between the terms. Christine E. Gudorf and James E. Huchingson, for example, indicate how the term "creation" is not always agreed upon in classroom contexts, insofar as the implicit value judgments and priorities may not always be deemed as sufficient alternatives for "biosphere or universe" (Gudorf and Huchingson, *Boundaries: A Casebook in Environmental Ethics*, second edition [Washington, D.C.: Georgetown University Press, 2010], 295).

rise to the industrialized, technological, consumerist society of the present day.⁹

Two figures were pivotal in this process. Sages of previous eras had reasoned deductively from first principles and *a priori* metaphysical truths, Sir Francis Bacon advocated an inductive method of experience and empirical observation of phenomena that could then build to broader inferences and general truths.¹⁰ René Descartes' philosophical investigations similarly sought to diminish fallibility in human inquiry (as elucidated in the *Discourse on Method for Rightly Conducting One's Reason and for Seeking Truth in the Sciences*, as well as in the *Meditations*). These shifts in emphasis are widely seen to have given rise to what we now know as the scientific method—that is, the repeatable, empirical observation, classification, and analysis of natural phenomena. Bacon was especially entranced by the potential to discern systematically the workings of nature and to improve thereby the lot of human social existence.¹¹ Descartes also indicates that through his method, humans could be enabled to use the objects of nature “for all the purposes for which they are appropriate, and thus make ourselves, as it were, masters and possessors of nature.”¹²

Theological consequences ensued from the new inquiries into epistemology and methodology. The watchmaker God of William Paley and the remote clockmaker God of Deism—along with other inventive images of modern theism—emerged alongside a new, mechanistic view of the universe. With increasing human knowledge and control over the mysteries and vagaries of earthly existence,

9 Varied accounts are given of how nature was understood prior to this shift, depending on the interests of the expositor. A widely cited, general account by Carolyn Merchant suggests that: “*Nature* in ancient and early modern times had a number of interrelated meanings. With respect to individuals, it referred to the properties, inherent characters, and vital powers of persons, animals, or things, and more generally to human nature. It also meant an inherent impulse to act and to sustain action ... With respect to the material world, it referred to a dynamic and creative regulatory principle that caused phenomena and their change and development” (Merchant, *The Death of Nature*, xxiii). The classic historical resource on this topic is R.G. Collingwood, *The Idea of Nature* (New York: Oxford University Press, 1960).

10 “Of induction,” Bacon writes, “the logicians seem hardly to have taken any serious thought, but they pass it by with a slight notice ... In dealing with the nature of things I use induction throughout ... for I consider induction to be that form of demonstration which upholds the sense, and closes with nature, and comes to the very brink of operation, if it does not actually deal with it” (Francis Bacon, *New Atlantis and The Great Instauration*, edited by Jerry Weinberger [Wheeling: Harlan Davidson, 1989], 21-22).

11 Consider, for example, Bacon's suggestion that, “the only hope therefore of any greater increase or progress lies in a reconstruction of the sciences,” and “the matter in hand is no mere felicity of speculation, but the real business and fortunes of the human race, and all power of operation” (Bacon, *New Atlantis*, 27 and 31). From a twenty-first century vantage point, it can be tempting to crown Bacon with the ambiguous distinction of catalyzing an era of exploitation in the name of progress. However, while we can see in Bacon's corpus an unbridled enthusiasm for the uses to which knowledge of nature might be put, it is also important to recall that Bacon's interest was with what sorts of empowerments could be found to bulwark individuals and societies that were beleaguered by forces (disease, weather, and so forth) previously beyond the realm of understanding, much less control.

12 René Descartes, *Discourse on Method and Meditations on First Philosophy*, trans. Donald Cress (Indianapolis: Hackett, 1993), 35. Thanks to Michael Peppard for conversation on this point and for reminding me of the salient, full title of Descartes' *Discourse on Method*.

nature began to be perceived less as a coherent and enduring whole that manifested signs of divine power and order, than as an accretion of physical properties to be isolated, categorized, and manipulated by human hands towards human ends. In the words of Alisdair McGrath, “nature, once seen as having a privileged status, was *disenchanted*.”¹³ Sallie McFague describes the distinction between “two models for understanding the natural order, an organic and a mechanical one,” or “the world as body or machine.”¹⁴ However, one need not embark on McGrath’s constructive theological project of “re-enchantment” or McFague’s ecological articulation of the earth as God’s incarnate body in order to consider that it was not only the ideas of nature, but also of God, that were impacted by the Enlightenment and Scientific Revolution.

DEISM AND DARWIN

Until the mid-nineteenth century, those who sought empirical knowledge about worldly processes did so under the auspices of “natural history” or “natural philosophy,” and not natural science as we presently understand it. As historian of science Ronald L. Numbers has indicated, embedded within natural philosophy was the notion that one could seek, “in the words of Isaac Newton, to discourse about God ‘from the appearances of things.’”¹⁵ The realms of inquiry were complementary. According to Numbers:

During the early decades of the nineteenth century writer after writer celebrated the delicious harmony between science and religion. Much of this doxological literature took the form of natural theology, which, in the words of the popular expositor the Anglican archdeacon William Paley, featured “evidences of the existence and attributes of the Deity, collected from the appearances of nature.”¹⁶

In other words, as natural philosophers found in nature—i.e., God’s Creation—happy confirmation of traditional Christian convictions, “nature” functioned as a unifying middle term between empirical reality and metaphysics of a specifically Christian sort. Thus, to an era of naturalists, the study and classification of nature was largely viewed as a faithful enterprise that extolled the glories of God.¹⁷

Such pastoral complementarity did not endure. As scientific knowledge progressed and specialized fields of study emerged, two theories posed particularly

13 Alisdair McGrath, *The Re-enchantment of Nature: Science, Religion, and the Human Sense of Wonder* (London: Hodder & Stoughton, 2002), xvii. A historical, non-theological study is found in Lorraine Daston and Katharine Park, *Wonders and the Order of Nature, 1150-1750* (Cambridge: MIT Press, 2001).

14 Sallie McFague, *The Body of God: An Ecological Theology* (Fortress, 1993), 15.

15 Ronald L. Numbers, “Aggressors, Victims, and Peacemakers: Historical Actors in the Drama of Science and Religion,” in *The Religion and Science Debate: Why Does it Continue?*, edited by Harold W. Artridge (New Haven: Yale University Press, 2009), 15.

16 Numbers, “Aggressors,” 18-19.

17 The Romantic era more generally saw a florescence of writings on nature. Historian Donald Worster has indicated how “arcadian” accounts of the holistic symbiosis of nature emerged in these writers, partly as a reaction to the dominance of Enlightenment rationalism and patterns of

significant challenges for key theological doctrines and traditional methods of biblical exegesis. In terms of cosmogony, the nebular hypothesis (what gave rise to the “Big Bang” theory) was not adroitly reconciled to the Genesis account of Creation. In the field of biology, Charles Darwin’s promulgations of evolutionary theory and natural selection were widely seen to undermine the biblical account of God’s creation of humans. But it was not just the cherished account of origins that seemed under attack. Nature, more generally, seemed increasingly to be described by modern scientists as a non-purposive happenstance, generated not so much from an omnipotent God as from cosmic accident. Nor was humans’ perceived role at the center of planetary existence any longer a given. In the summation of historian Donald Worster, “the purposeless, mechanical universe revealed by Darwin and other scientists had left the human spirit an orphan.”¹⁸ The ambivalences generated by these dynamics seem to have crystallized around the meaning and interpretation of nature and creation, and they certainly contributed to eventual divisions between theology and science.

Through the rise of the scientific method and the increasing specialization of the sciences, many scientists came to see nature as the realm of the knowable, empirical, and certain. The scientific laws of nature were put forward in a very different manner, and with profoundly different content, from the natural law theorizing of previous eras. Furthermore, speculation on supernatural occurrences (those, literally, beyond the natural), as well as discussion of first causes or ultimate teleologies, seemed ancillary—if not downright unrelated to and perhaps in conflict with—the scientific method. Hence the binary pair of natural and supernatural also gained a charged kind of prominence during this era, for insofar as science measures and operates on the knowable world in repeatable experiments, it need not appeal to supernatural causes or non-scientifically verifiable beliefs for its defensibility.¹⁹ Up to the present day, debates continue about the relationship between science and theology. (Frequently these crystallize around the perceived viability of naturalism—that is, the type of methodological or metaphysical authority conveyed by scientific accounts of empirical reality—and its compatibility with theistic worldviews.) In addition, several new and distinct paradigms for considering nature came to prominence in the twentieth century.

INFLUENTIAL TWENTIETH-CENTURY PARADIGMS OF NATURE

The twentieth century saw a florescence of writings on nature and the deployment of the concept in significant ways. In what follows, I articulate three major paradigms that have shaped twentieth-century discourse about nature. These are nature as economic resource, nature as wilderness, and nature as a

industrialization, especially in England. See Donald Worster, *Nature’s Economy: A History of Ecological Ideas*, 2nd edition (Cambridge: Cambridge University Press, 1994).

¹⁸ Worster, *Economy of Nature*, 17.

¹⁹ Lorraine Daston, Director of the Max Planck Institute for the History of Science, has indicated the historical and philosophical significance of the collapse of the “preternatural” as a middle term between “supernatural” and “natural.” See the helpful summary by Terrence Tilley, *History, Theology, and Faith: Dissolving the Modern Problematic* (Maryknoll: Orbis, 2004), 74-76.

middle term between ecology and environmentalism.

NATURE AS ECONOMIC RESOURCE

Capitalism as a philosophy of economic exchange was forged in the crucible of Western Europe after the Enlightenment.²⁰ It has been accelerating and gaining prominence ever since, and it has impacted conceptions of nature. Historians frequently mark the significance of this shift by referring to the Romantic era, in which bucolic ideals were contrasted to the rapidity of industrialization and economic growth. For example, Kate Soper has indicated how in Romantic literature, “the integrity of nature is counterposed to the utilitarianism and instrumental rationality through which the Enlightenment ideals were practically realized and theoretically legitimated.”²¹ Illustrating a similar contrast, historian Donald Worster quotes late nineteenth-century English naturalist W. Warde Fowler at some length:

Surely the spread of the factory system, and the consequent growth of huge towns, has rather strengthened than weakened this love of all things rural. We pine for pure air, for the sight of growing grass, for the foot-path across the meadow . . . But in the last century there was no need to pine, when there was hardly a town from which a man could not escape into the fields when he would without toiling through the grimy suburbs where the problems of economic science force themselves at every turn on his mind.²²

Capitalist free-market economics is now a globally dominant, even normative, structure of patterns of economic exchange. Recognizing this trajectory, the contemporary significance of the linkage between industrialism and capitalism for the concept of nature can be articulated in at least two ways.

First, industrialization enabled production of goods on a scale never before achieved. This, in turn, required continued use of resources, ranging from water to fossil fuels. Nature came to function as a set of resources—a means of production for industry and agriculture—with little recognition of the possibility of resource finitude. The net result, according to Paul Matthews, is that

The dominant form of contemporary human existence is one that seeks to enframe everything as a stockpile of resources. Nature is largely seen as a mere array of objects more or less useful for the production of the human world. Even the beauty of nature has become a

20 Over time the expressions of capitalism have been multiple, in response to the contexts and concerns of theorists involved in its promulgation, the structures and strictures of governments in which it has become dominant, the technological developments catalyzed by the Industrial Revolution and continuing through the digital age, and consequences of world political events in the twentieth century.

21 Soper, *What is Nature?*, 29. See also Daston, “The Nature of Nature in Early Modern Europe.”

22 Quoted in Worster, *Nature's Economy*, 15.

commodity to be used.²³

Similarly, many contemporary scholars have pointed out that capitalism's logic of perpetual growth assumes a non-depletable supply of natural resources. In Neil Smith's blunt assessment,

Capitalist production (and the appropriation of nature) is accomplished not for the fulfillment of needs in general, but for the fulfillment of one particular need: profit. In search of profit, capital stalks the whole earth. It attaches a price tag to everything it sees and from then on it is this price tag which determines the fate of nature.²⁴

But it is not just those suspicious of capitalism who endorse this viewpoint. In the words of Nobel-laureate economist Joseph Stiglitz, "the exploitation of natural resources is an important part of globalization today."²⁵ Harvard economist Benjamin Friedman has acknowledged that, as a result, "[e]nvironmental concerns have also become an important dimension of today's fractious debate over globalization."²⁶

A timely example can be found in contemporary debates over fossil fuel extraction, particularly mountaintop removal for access to coal seams. Proponents are quick to minimize the environmental effects (which include health consequences for workers and downstream residents), emphasizing instead the economic value of resource extraction. An illustrative example is given by Don Blankenship, the C.E.O. of Massey Energy, a major coal company in Kentucky and West Virginia. With regard to mountaintop removal as a method of coal extraction, he says:

I don't think you can put them [mountaintops] back as good [*sic*] as God put them there, but generally I think the environmental damage is far less than the value of the mining, the value of the domestic energy, the value of the inexpensive electricity, the jobs, all the national security that comes from having domestic energy.²⁷

Hence we can see that an important consideration has to do with how nature is *valued*. That is, when nature is viewed as a cache of resources, its value is instrumental (or at least secondary) to the good of economic growth. To treat nature primarily as an economic resource is therefore to assume that its primary

23 Paul Matthews, *The Revelation of Nature* (Burlington: Ashgate, 2001), 4.

24 Neil Smith, *Uneven Development: Nature, Capital, and the Production of Space* (Athens: University of Georgia Press, 2008 [1984]), 78.

25 Joseph Stiglitz, *Making Globalization Work* (New York: W.W. Norton, 2007), 149.

26 Benjamin Friedman, *The Moral Consequences of Economic Growth* (New York: Vintage Books, 2006), 386.

27 "A Fight for a Mountaintop," produced by Ben Werschkul, *The New York Times* online, <http://video.nytimes.com/video/2010/08/14/business/1247468621885/a-fight-for-a-mountaintop.html?scp=3&sq=mountaintop%20removal%20video&st=Search>

value lies in short-term economic production. Thus the idea that nature is a resource is not merely descriptive: it is a normative, evaluative judgment about the ways in which societies should relate to—that is, preserve, sustain, draw down, degrade or exploit—features of the environment.

Debate over whether nature should be interpreted primarily as a “stockpile of resources” has an august history. An early American proponent of this position was Gifford Pinchot, the first Chief of the Forest Service (1905-1910) under President Theodore Roosevelt. Pinchot is known now for his influential views that natural resources—especially forests—were to be used for the benefit of humankind. But even Pinchot was highly critical of prevailing American attitudes that assumed the inexhaustibility of natural resources: “We are in the habit of speaking of the solid earth and the eternal hills as though they, at least, were free from the vicissitudes of time and certain to furnish perpetual support for prosperous human life,” but this attitude is patently disproven by reality, he claims.²⁸ What is required to achieve the end of enduring prosperity, “to take pride in vigorous and healthful growth,” he suggested, is to make “the planned and orderly development and conservation of our natural resources” into “the first duty of the United States.”²⁹ It is important to emphasize that Pinchot did not sanction the unbridled exploitation of natural resources. Rather, he advocated a conservation ethic that sought to ensure maximal, sustainable prosperity for the nation in *both* the short- and long-term.

The significance attributed to resources has varied greatly over the past century especially, but there is no question that in the attitudes and practices of individuals and nations across the world under the conditions of late capitalism, nature is engaged primarily as an economic resource.

NATURE AS WILDERNESS

While Gifford Pinchot suggested that prosperity was an important factor in devising the tenor of society’s relationship to nature, John Muir spoke up for the value of nature as wilderness, preserved. His evocative prose, as Bill McKibben has noted, “introduced an ecstatic new grammar and vocabulary of wildness into the American imagination: in some sense, every national park on the planet owes its existence to the spell he cast.”³⁰ Opposed to the idea of nature as a manipulable economic resource, then, stands the idea of nature as wilderness. Consider Muir’s account of his summer in the Sierra Nevada mountains:

Every attempt to appreciate any one feature is beaten down by the overwhelming influence of all the others. And, as if this were not enough, lo! in the sky arises another mountain range . . . another version of the snowy Sierra, a new creation heralded by a thunder-storm. How fiercely, devoutly wild is Nature in the midst of her beauty-

28 Gifford Pinchot, “Prosperity,” in *American Earth: Environmental Writing Since Thoreau*, edited by Bill McKibben (New York: Literary Classics of the United States, 2008), 175.

29 Pinchot, “Prosperity,” 180.

30 Bill McKibben, “John Muir,” in *American Earth*, 84.

loving tenderness! ... The west is flaming in gold and purple, ready for the ceremony of the sunset, and back I go to camp with my notes and pictures, the best of them printed in my mind as dreams. A fruitful day, without measured beginning or ending. A terrestrial eternity. A gift of good God.³¹

Muir's elegant and elegiac prose described the vastness and ambivalence of the wild in ways that resonated deeply, giving voice to a type of fearsome and exquisite beauty that could, in many instances, only be imagined by his readers. In these extraordinary images there is something that indicates, perhaps, the longing and insatiability of the human spirit, or that both inspires and demands recognition of human insignificance in the grand scheme of things. But how long could wilderness exist as Muir experienced it in 1911?

Nearly forty years later, in his famous environmental treatise, *A Sand County Almanac*, Aldo Leopold wrote that

wilderness is the raw material out of which man has hammered the artifact called civilization. ... For the first time in the history of the human species, two changes are now impending. One is the exhaustion of wilderness in the more habitable portions of the globe. The other is the world-wide hybridization of cultures through modern transport and industrialization.³²

Leopold deemed this type of progress inevitable, stating that wilderness is "a resource that can shrink but not grow."³³ Was the wild nature hymned by Muir increasingly a mirage, imprinted on the minds of readers by a legacy of words?

More than sixty years after *A Sand County Almanac* and a century after Muir, human societies worldwide have borne outcomes of urbanization and industrialization that neither Pinchot nor Muir nor Leopold lived to experience. They include a distancing of most urban people from the bases of industrial and agricultural production that support our lifestyles; a concomitant diminishment of our sense of dependence on the natural world; and the inaccessibility of natural environments to people residing in many urban centers.³⁴ Yet the notion of wild na-

31 John Muir, "My first summer in the Sierras," in *American Earth*, 99.

32 Aldo Leopold, *A Sand County Almanac and Sketches Here and There* (Oxford: Oxford University Press, 1949), 188.

33 Leopold, *A Sand County Almanac*, 200.

34 These outcomes are abundantly indicated in a range of literatures. For arguments about the distance between resources, production, and consumption, almost any text on economic globalization will convey the point; for a middle-of-the-road account, see especially Joseph Stiglitz, *Making Globalization Work*. For the sense of diminished reliance upon the natural world after the Enlightenment, see the work of Tu Weiming, Thomas Berry, Mary Evelyn Tucker and John Grim, Sallie McFague and many others. For the diminished access of urbanites to natural environments, see the work of Stephen Kellert and Gretel VanWieren in their ongoing colloquium on children's access to nature, at the Yale University School of Forestry and Environmental Studies.

ture remains, powerful and enduring.³⁵ Consider, for example, the account given by Peter Singer in *Practical Ethics*, when he suggests that the short-term economic benefits to logging or damming a forest reap destructive long-term consequences:

Once the forest is cut or drowned, however, the link with the past has gone forever. That is a cost that will be borne by every generation that succeeds us on this planet. It is for that reason that environmentalists are right to speak of wilderness as a ‘world heritage.’ It is something that we have inherited from our ancestors, and that we must preserve for our descendants, if they are to have it at all.³⁶

Singer is right, in my view, that “there are some things that, once lost, no amount of money can regain.”³⁷ The problem is a practical (even empirical!) one, and an exponent as prominent as Singer helps to drive home the point: it is no longer clear that there are places untouched by human intervention in the way the term “wilderness” might suggest. Indeed, twenty years ago Gary Snyder wrote that,

Wilderness is now—for much of North America—places that are formally set aside for public lands—Forest Service or Bureau of Land Management holdings or state and federal parks. Some tiny but critical tracts are held by private nonprofit groups like The Nature Conservancy or the Trust for Public Land. These are the shrines saved from all the land that was once known and lived on by the original people, the little bits left as they were, the last little places where intrinsic nature totally wails, blooms, nests, glints away. They make up only two percent of the land of the United States.³⁸

Hence, while wilderness is an illustrative and evocative concept, in the start of the second decade of the twenty-first century, it seems also to be something of an ideal type, or a throwback. At best, perhaps it could suggest a cognitive dissonance, prompting us to ask: where *is* wilderness?, and to wonder at the conditions of its absence in our lives. At worst, however, the notion of wilderness provides a type of nostalgic escapism from the contemporary reality of widespread environmental degradation.

The truth of the matter is that, in the present day, there is no part of the planet that is untouched by human actions and modifications. Not every leaf has been touched by human hands, of course, nor every peak scaled. Micro-environments can be found that exhibit more biological and geological autonomy than others. People still get lost in the Grand Canyon, stumble upon caves seem-

35 The encompassing and authoritative text on “wilderness” in ways that are inextricable from conceptions of nature is Max Oelschlaeger, *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven: Yale University Press, 1993).

36 Peter Singer, *Practical Ethics*, 2nd edition (Cambridge: Cambridge University Press, 1993), 269.

37 Singer, *Practical Ethics*, 270.

38 Gary Snyder, *The Practice of the Wild* (Berkeley: Counterpoint, 1990), 15.

ingly untouched, and are swept into imperceptibility in vast expanses of ocean. Nonetheless, humanity has wrought changes that decisively challenge the idea of wilderness as pristine nature. As but one example, consider how the anthropogenic causes and consequences of climate change are global in scope. Writer and environmentalist Bill McKibben has suggested that we rename our planet “Eaarth,” since climate change has rendered it a different place than the one that we have long inhabited.³⁹ Nobel laureate and chemist Paul Crutzen has termed the current geological era the “Anthropocene”—in recognition of the fact that anthropogenic environmental change is now the determining geological force. Or, in the description of geologist Jan Zalasiewicz:

whatever we as a species do from now, we have already left a record that is now indelible, even while the scale of this fossilization event is still in question, and within our power to determine. . . . our actions now will literally be raising mountain belts higher, or lowering them, or setting off volcanoes (or stifling them), or triggering new biological diversity (or suppressing it) for many million years to come. . . . However we are interpreted in some distant future, there will be little doubt that we will be associated with—and responsible for—some of the most extraordinary geology of this, or any other, planet.⁴⁰

The operative point is that the idea of a separate and enduring wilderness is increasingly an illusion. “Where nature does survive pristine,” suggested Neil Smith in 1985,

miles below the surface of the earth or light years beyond it, it does so only because as yet it is inaccessible. If we must, we can let this inaccessible nature support our notions of nature as Edenic, but this is always an ideal, abstract nature of the imagination, one that we will never know in reality. Human beings have produced whatever nature will be accessible to them.⁴¹

It is not something enduring, out there, just beyond our reach. Rather, wilderness is an idea that has been influential over time but is now largely vestigial. While the idea of the wild signals and evokes something important in human discourse, its resonance should not be taken as a descriptive datum to which “nature” can be reduced. The shape of the planet may be wild and unruly, but it is also decisively human.

FROM BALANCE TO FLUX: NATURE, ECOLOGY AND ENVIRONMENTALISM

Ecology emerged as an early form of natural philosophy that sought to

39 Bill McKibben, *Eaarth: Making a Life on a Tough New Planet* (New York: Times Books, 2010).

40 Jan Zalasiewicz with contributions from Kim Freedom, *The Earth After Us: What Legacy will Humans Leave in the Rocks?* (New York: Oxford University Press, 2008), 240-241.

41 Smith, *Uneven Development*, 81.

delineate order and relationships in nature and was initially known as an inquiry into the “economy of nature,” in the sense of the *oikos*, or household—emphasizing the relationship of parts to wholes in a coherent framework. Until the late twentieth century, a holistic ecological theory of “the balance of nature” held sway in popular imagination, and especially in environmentalist discourse. In Celia Deane-Drummond’s summary, this holistic model assumes that ecological systems “are essentially closed; are self-regulating; possess stable point or stable cycle equilibrium; have deterministic dynamics; are free of disturbance; are independent of human influences.”⁴² She suggests that this idea of the “balance of nature” is “widespread in the [non-scientific] literature” and that “theories of human obligation commonly take their inspiration from what is perceived to be a scientific ontology of nature.”⁴³ One resulting complication is that some strains of environmentalism (i.e., social and political activism aimed at addressing the causes and effects of environmental degradation) have been built upon inaccurate assumptions about ecological relationships.

In ecological science, the idea of steady-state, closed-system relationships has been debunked: homeostatic equilibrium is not considered an accurate descriptor of complex ecological processes. Rather, ecosystems are now understood to be dynamic, open, complex systems, impacted by human actions, in ways that can be dramatically altered and within which there are limits to adaptability. In other words, the idea of the “balance of nature” has been replaced by a chastened appreciation of contingency and flux. Insofar as this second approach recognizes the openness of biotic and geological systems, especially their susceptibility to human influence, the difference becomes morally significant. As Deane-Drummond points out, taking ecological science seriously requires skepticism towards the timeless, bucolic, metaphysical ideals of early ecological thinkers and their theological and ethical manifestations. The harmony of an ever-equilibrating ecosystem has been replaced by uncertainty and ambivalence, although it should be noted that the ascription of flux does not necessarily preclude the idea of an ever-shifting, discernible order.

Beyond this important critique of ecological interpretation, ecological science has been a vital conversation partner and catalyst for environmentalism, especially in the mid-twentieth century. In its attention to relationships, ecology—and allied applied sciences such as conservation biology—has tended to buck scientific temptations of reductionism or hyperspecialization.⁴⁴ As is well known, Rachel Carson was among the first to draw out the significance of key ecologi-

42 Celia Deane-Drummond, *The Ethics of Nature* (Oxford: Blackwell, 2004), 36.

43 Deane-Drummond, *The Ethics of Nature*, 36. In Deane-Drummond’s persuasive elaboration, among the influential theories that capitulate to this conceptual error are James Lovelock’s Gaia hypothesis and Michael Northcott’s work in Christian environmental ethics.

44 Ecologists have been among the first to observe that controlled test situations (such as those found in most economic theories or in most laboratory environments) do not necessarily encompass or accurately represent the range of possible scenarios in the real world. Furthermore, ecological discourse has increasingly resonated with developments in physics—with regard to features of interdependence, complex causality, natural variability, long-term sustainability, the limitations of current knowledge, uncertainty, and the problem of unintended consequences. Nature is the polysemic hinge and context of this interesting convergence among chaos theory, quantum physics, and ecology.

cal insights for a general audience. Her famous account, *Silent Spring* (1962), accented ethical aspects of environmental degradation by charting the negative effects of pesticides—especially DDT—on the environment, animals and humans. In the intervening decades, biomagnification and bioaccumulation have become abundantly evident, and ecologists and nature writers alike have followed Carson's lead in analyzing the ways that the environment has been impacted by synthetic chemicals, industrial economic interests, and the failures of industry, agriculture and government to employ the precautionary principle.⁴⁵ In the 1970s, critiques of the unholy alliance between modernist science and free-market capitalism augmented this discourse, as indicated by publications like E.F. Schumacher's *Small is Beautiful* and the Club of Rome's *Limits to Growth*.⁴⁶

During this fertile period—which saw the advent of the first Earth Day in 1970—some scholars wondered what sorts of philosophical or theological assumptions could be pinpointed as somehow responsible for environmental degradation. The most influential account—for better or worse—has been that of medieval historian Lynn White, Jr., who in 1967 published an article in *Science* magazine, entitled “The Historical Roots of Our Ecological Crisis.” White argued that while all humans have modified their contexts, the Industrial Revolution marked a decisive shift in the relationships between humans and nature—and that this shift was uniquely characterized by an attitude of exploitation that took its warrant and its form from Judeo-Christian biblical narratives of human dominion and superiority over the rest of creation.⁴⁷ While White's article suffers from historical selectivity and conceptual omissions, it nonetheless identified the relationship between humans and nature as *the* most important issue in environmental discourse—an orientation that persists even to the present day. At best, White's insights have prompted an interrogation of different fields of study and religious practice as scholars and practitioners have sought to ascertain where these traditions may have been complicit in the degradation of the material world. In ecological theology, the work of Thomas Berry, John Cobb, John Haught, Elizabeth Johnson, Sallie McFague, Rosemary Radford Reuther, Mary Evelyn Tucker and John Grim, and others continues to attest to the importance of advancing constructive alternatives to dominion and anthropocentrism.

Of course, dominion and anthropocentrism are not solely the property of theology and religion. Many of White's respondents have suggested that culture, economy, and political arrangements have also been significant or decisive factors

45 From the perspective of an ecologist, see especially Sandra Steingraber, *Living Downstream: An Ecologist's Personal Investigation of Cancer and the Environment*, 2nd edition (Philadelphia: Da Capo Press, 2010) and *Having Faith: An Ecologist's Journey Towards Motherhood* (Berkeley: Berkeley Trade, 2003), which deals in narrative form with toxicology and bioaccumulation as they impact pregnant women, fetuses and infants. For a naturalist writer's account, see Terry Tempest Williams, *Refuge: An Unlikely History of Family and Place* (New York: Vintage Books, 1992).

46 In the early twenty-first century, ecologically-based critiques of economic growth and profit motives are resurfacing rapidly.

47 Lynn White, Jr., “The Historical Roots of Our Ecological Crisis,” *Science* 155, no. 3767 (10 March 1967).

to environmental degradation. In Carolyn Merchant's assessment, for example,

The idea of dominion over the earth existed in Greek philosophy and Christian religion; that of the nurturing earth, in Greek and other pagan philosophies. But, as the economy became modernized and the Scientific Revolution proceeded, the dominion metaphor spread beyond the religious sphere and assumed ascendancy in the social and political spheres as well.⁴⁸

And Donald Worster, after ranting against what he views as Christianity's impoverished ecological vision, nonetheless suggests in *Nature's Economy* that the West has long exhibited an "imperial" view "that has made the domination of the earth—often promoted in the name of a purely secular welfare—one of modern man's most important ends," in ways that are *distinct* from its Judeo-Christian heritage.⁴⁹ In a variety of ways, then, biblical and/or Western ideas of dominion and entitlement may well have fueled humanity's exploitation of natural resources. But, as many contemporary commentators indicate, globalized capitalism has accelerated the process immeasurably—and perhaps irreversibly.

Another enduring topic of scholarly analysis derived from White's article has focused on how nature should be valued—as instrumental or extrinsic, or as a good in itself? These modes of inquiry represent important critiques and reconfigurations of baldly exclusionary, anthropocentric value hierarchies. However, a growing number of contemporary theorists (myself included) argue that there are more constructive ways to elucidate some of the issues at stake than by rehashing what Celia Deane-Drummond has called "the somewhat stale philosophical debate between anthropocentric and biocentric views."⁵⁰ One such promising direction involves the steady recognition of fundamental interdependencies among living things and nonliving substrates, that is, the suggestion that traditional divisions between humans and nature are far too blithe. Given this insight, questions of value can be perspicuously mobilized in ways that avoid the binary reduction of intrinsic vs. extrinsic value.

DECONSTRUCTING NATURE IN THE TWENTY-FIRST CENTURY

In the second half of the twentieth century, critical theory and deconstruction opened new vistas onto the dynamics of power and the production of knowledge. The consequences have been profound for the humanities, social sciences, and the arts (although, generally speaking, this family of criticisms has held less sway in the physical sciences).⁵¹ The relationship between nature and

48 Merchant, *Death of Nature*, 3.

49 Worster, *Nature's Economy*, 29.

50 Deane-Drummond, *The Ethics of Nature*, xii.

51 For example, where Kohlberg's developmental theories had been taken as authoritative and objective statements on human morality, the work of Carol Gilligan indicated that these were by no means universal, inasmuch as the results were biased by selective behavioral measures that espoused contingent values, and by the non-universalizable, culturally homogenous sample comprised entirely of boys. What had previously been regarded as objective and universalizable could no longer

culture has been a key topic of analysis. Social theorists have shown that human diversities that had been assumed to be inferior natural endowments were, in fact, opportunistic and systematic cultural constructions, which served to perpetuate systems of injustice, oppression, and power. The problem is not merely that facts were assumed to convey inherent values, but also that pre-existing evaluations and cultural biases were read back on to embodied features, and then defended as “natural” in ways that served primarily to reify a status quo. The history of the construction of gender and race, and concomitant evaluations of “superior” human natures, are now commonly recognized examples.

These accounts are crucially important because, as scholars of ideology have pointed out, processes of naturalization and universalization are integral to how a particular position comes to be seen as normative and incontestable. Critical theory has helped us to see that description and prescription are more intimately interwoven than we would have previously acknowledged. With regard to the topic of this essay, developments in ecofeminism and social ecology have been especially effective in altering our perceptions of nature.

ECOFEMINISM AND THE ARTICULATION OF OPPRESSION

Feminist theory was one of the earliest discourses to interrogate universalizing, naturalizing assumptions and to unmask the privileges afforded. Connections were quickly made with environmental concerns. Drawing out systematic linkages among portrayals of nature and women in *The Death of Nature*, for example, Carolyn Merchant indicated how normative assumptions about women and the earth have been embedded in regnant images of nature, and how material injustices to both women and nature have been thereby sanctioned. Merchant could be dubbed an ecofeminist—a term coined by French scholar Françoise d’Eaubonne in 1974—insofar as ecofeminism refers to the observation and elucidation of how patriarchal attitudes towards women (and evaluations of their worth) parallel dominating attitudes towards nature.⁵² With a wide range of interpreters and inflections, ecofeminism seeks to draw out and grapple with these linkages in ways that promote the flourishing of life.

Some theologians have incorporated these methods and insights into their theorizing. With regard to the concept of nature, Rosemary Radford Reuther and Ivone Gebara have been especially important in theorizing the theological significance of links among sexism and environmental degradation.⁵³

Reuther describes ecofeminism as a linkage between deep ecology and

be seen as such. In the wake of this publication, persistent debates about nature/culture, gender, and ethics have ensued. See Carol Gilligan, *In A Different Voice* (Cambridge: Harvard University Press, 1982).

52 For an excellent and concise explication of trends in ecofeminism from the stance of social theory, see Carolyn Merchant, “Ecofeminism and Feminist Theory,” in *Reweaving the World: The Emergence of Ecofeminism*, edited by Irene Diamond and Gloria Feman Orenstein (San Francisco: Sierra Club Books, 1990), 100-105.

53 The work of Sallie McFague in *The Body of God: An Ecological Theology* is not, strictly speaking, an ecofeminist theology, though it complements the ecofeminist approaches of Reuther and Gebara by exploring the theological significance of embodiment within an ecological worldview.

feminism. She has suggested that among the necessary elements for achieving a “just and sustainable planet” are, first, reshaping “our dualistic concept of reality as split between soulless matter and transcendent male consciousness,” as well as discovering “our actual reality as latecomers to the planet.”⁵⁴ Many of her books, articles, and edited volumes dwell on these important topics. Brazilian theologian Ivone Gebara identifies ecofeminism as a linkage between holistic ecology and social feminism. In her book *Longing for Running Water: Ecofeminism and Liberation*, she describes her task as

creating an ecofeminism based on the experience of those who have diminishing access to green things and clean water; of those who breathe an ever greater amount of air pollution that has spread everywhere. My ecofeminism is pregnant with health: not health as we understood it in the past, but the health of a future that promises deeper communion between human beings and all living things.⁵⁵

To this end, Gebara has been simultaneously attentive to the social and environmental realities of women and people living in poverty, while also focusing on epistemological and theological implications that emerge. She claims, for example, that

What we call Christian revelation cannot be reduced to a kind of static metaphysics that assumes we already know what human beings are and who God is. The ecofeminist perspective assumes that, despite the fact that we are human beings, we can know neither God nor human beings by a priori deduction. Ecofeminism has not turned back to a naïve naturalism or to some earlier innocence that would try to speak of humanity “before the fall.” On the contrary: We would question [this] kind of naïve naturalism⁵⁵

Thus, for example, does she “offer a somewhat tentative effort at rebuilding Trinitarian meanings,” by reflecting on the Trinity in the cosmos, on earth, and in relationships “among people and cultures.”⁵⁶

Standing with Gebara’s concern for those who have “diminishing access to green things and clean water,” critics of environmental racism and advocates of environmental justice have made visible how many forms of power and privilege generate—yet ignore—systems of environmental degradation and exploitation, which are built upon well-established premises that nature is a resource to be used for economic gain. Yet the outcomes affect the marginalized and vulnerable

54 Rosemary Radford Reuther, “Ecofeminism: Symbolic and Social Connections of the Oppression of Women and the Dominion of Nature,” in *This Sacred Earth: Religion, Nature, Environment*, 2nd ed., edited by Roger S. Gottlieb (New York: Routledge, 2004), 388.

55 Ivone Gebara, *Longing for Running Water: Ecofeminism and Liberation* (Minneapolis: Fortress Press, 1999), vii.

56 Ivone Gebara, “The Trinity and Human Experience: An Ecofeminist Approach,” in *This Sacred Earth*, 403.

most drastically. Emilie Townes was an early voice in this discourse, indicating in her book, *Breaking the Fine Rain of Death: African American Health Issues and a Womanist Ethic of Care*, how structurally-embedded social and economic situations confer persistent negative outcomes for African American women's health.⁵⁷

As a final example, the work of Leonardo Boff links ecological concerns with the life of the poor, informed by the insights of liberation theology. Having elucidated several case studies of economic exploitation and environmental degradation in South America, Boff observes that, "liberation theology and ecological discourse have something in common: they start from two bleeding wounds."

The wound of poverty breaks the social fabric of millions and millions of poor people around the world. The other wound, systematic assault on the Earth, breaks down the balance of the planet, which is under threat from the plundering of development as practiced by contemporary global societies. Both lines of reflection and practice have as their starting point a cry: the cry of the poor for life, freedom and beauty (cf. Ex. 3:7), and the cry of the Earth groaning under oppression (cf. Rom 8:22-23). Both seek liberation.⁵⁸

Nature is an important term in his account, for it seems to be a reality that is interdependent with human flourishing, yet in some ways distinct. Boff indicates, for example, how earth should not be reduced "to an assortment of natural resources or to a physical and chemical reservoir of raw materials" and adds that "people feel the need for a new use of science and technology *with* nature, *on behalf of* nature, never *against* nature."⁵⁹ Therefore, it is

imperative to ecologize all that we do and think, to reject closed ideas, mistrust one-way causality, to strive to be inclusive in the face of all exclusions, to be unifying in the face of all disjunctions, to take a holistic approach in the face of all reductionisms, and to appreciate complexity in the face of all oversimplifications.⁶⁰

SOCIAL AND POLITICAL ECOLOGY

In his influential book, *Uneven Development: Nature, Capital, and the Production of Space*, Neil Smith offers a critique of development patterns under the

57 Emilie Townes, *Breaking the Fine Rain of Death: African American Women's Health Issues and a Womanist Ethic of Care* (New York: Continuum, 1998). Along with collaborators, including Mary Evelyn Tucker and John Grim and the Yale Forum on Religion and Ecology), Townes was one of the key organizers of a conference on environmental justice, Environmental (Dis)locations, held at Yale Divinity School in April 2010.

58 Leonardo Boff, *Cry of the Earth, Cry of the Poor*, translated by Phillip Berryman (Maryknoll: Orbis Books, 1997), 104. See especially chapter five for an elucidation of the linkages between poverty and environment.

59 Boff, *Cry of the Earth*, 13.

60 Boff, *Cry of the Earth*, 13.

conditions of global capitalism in order to indicate how realities such as space and nature are produced in societies. Heavily indebted to Marx's historical and dialectical materialism, Smith quotes with delight "Marx's brilliant observation, over 120 years ago, that 'the nature that preceded human history ... today no longer exists anywhere.' This insight," Smith continues, "is today, of course, conventional geographic wisdom, although it is not generally interpreted in terms of the production of nature."⁶¹

Smith's method in *Uneven Development* is to articulate "essential moments of production" that have, for most of history, been present but not apparent; and to argue that nature, too, is among these productions. By "production," he is referring to the idea that, "by producing the means to satisfying their needs, human beings collectively produce their own material life, and in the process produce new human needs whose satisfaction requires further productive activity." The consequences manifest in social, political, economic, and philosophical terrain.⁶² Sometimes these processes are visible to human consciousness and analysis; frequently they remain invisible, yet nonetheless contribute to the shape of human existence. Smith argues that the concept of nature is one such moment of production, and that it manifests in spatial arrangements within and among societies. Acknowledging the dissonance of the idea that nature can be *produced*—since many would protest that nature is, in fact, precisely that "material substratum" that is *not* produced—Smith goes on to explain what he means: "In short, when this immediate appearance of nature is placed in historical context, the development of the material landscape presents itself as a process of the production of nature."⁶³

Fifteen years after Smith wrote *Uneven Development*, David Harvey asked his interlocutors to "consider just one element in the repertoire of our evolutionary capacities: the kind of 'nature' we are now in a position to produce."⁶⁴ Having recognized that nature in its material forms as well as its rhetorical strategies is shaped by social understandings, he goes on to suggest not merely that the concept is in need of critique—but also that we ought to look closely at how "the kind of nature we might be in a position to produce in years to come will have powerful effects upon emergent and even new social forms. How we produce nature in the here and now is therefore a crucial grounding."⁶⁵ In other words, the task is not merely deconstructive, but requires us to attend to our construction of the concept of nature and to the ways in which it is deployed, in the hopes of—to put it casually—doing better next time.

The groundbreaking work of Smith and Harvey has been taken up by a generation of social ecologists who suggest that various facets of environmental reality are substantially constructed through dominant social, economic, aesthetic,

61 Smith, *Uneven Development*, 77.

62 Smith, *Uneven Development*, 55. For example, he describes "the division of society into classes" as a necessary predicate of the emergence of a state "as a means of political control;" and how "the division of labor within the family is subordinated to the broader social division of labor now thoroughly rooted in class structure and the production process" (61).

63 Smith, *Uneven Development*, 49-50.

64 David Harvey, *Spaces of Hope* (Berkeley: University of California Press, 2000), 213.

65 Harvey, *Spaces of Hope*, 218.

and political patterns. Several scholars within the past decade have mobilized these insights in order to call for a thoroughgoing re-assessment of the concept of nature in our discourse.⁶⁶ For the purposes of this essay, I will signal the contributions of two recent expositors: Timothy Morton and Bruno Latour.

In *Ecology without Nature*, Timothy Morton argues that in much environmental thought and eco-criticism, “nature is set up as a transcendental, unified, independent category,” which stultifies and obfuscates more than it illuminates. Thus, the point of Morton’s book, *Ecology without Nature*, is actually to say, in his words, “down with nature!” Or, more precisely:

When I suggest that we drop the concept of nature, I am saying that we *really* drop it, rather than try to come up with hastily conceived, ‘new and improved’ solutions, a new form of advertising language. ... Derrida’s profound thinking on the ‘without,’ the *sans*, in his writing on negative theology comes to mind.⁶⁷

Morton’s specific corpus of analysis is aesthetics, since he believes that this is where “points of contradiction and deep hesitation in systems of meaning” become evident.⁶⁸ The danger, according to Morton, is that the construction of nature, especially in the genre of “nature writing,” is illusory and sometimes even “partly militates *against* ecology rather than for it.”⁶⁹ He is particularly concerned about the deployment of the idea of nature as a distinct category, separate from the realm of human affairs, in what he calls “ecomimesis”:

By setting up nature as an object “over there”—a pristine wilderness beyond all trace of human contact—it re-establishes the very separation it seeks to abolish. ... Ecomimesis works very hard at immersing the subject in the object, only to sit back and contemplate its handiwork. It reproduces with a vengeance the Cartesian opposition

66 As Harvey’s recommendation in the preceding paragraph indicates, not all critical and deconstructive projects need lapse into the impasses of relativism. Perhaps the best account of how this is feasible with regard to discourse about nature is offered by Kate Soper in *What Is Nature?*, especially chapter two. Soper’s work indicates how two distinct and seemingly-oppositional contemporary forms of nature discourse (“nature-endorsing” and “nature-skeptical”) nonetheless overlap in their political aspirations. “Nature-endorsing” generally refers to stances that regard nature as the “domain of phenomena and directly observable forms,” especially equated to the environment; “nature-skeptical” signifies deconstructive approaches, indebted to Derrida, that see in the term “nature” a legacy of cultural constructions and contingent interpretations (see Soper, *What is Nature*, 180). For additional treatments of the issue of nature’s content, and particularly the fractures between deconstructive and environmentalist approaches, see *Reinventing Nature?*, edited by Michael E. Soulé and Gary Lease.

67 Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (Cambridge: Harvard University Press, 2007), 13, 21.

68 Morton, *Ecology without Nature*, 6.

69 Morton, *Ecology without Nature*, 125.

between *res cogitans* and *res extensa*.⁷⁰

Morton's radical recommendation is, then, to "let go of the idea of Nature, the one thing that maintains an aesthetic distance between us and them, us and it, us and 'over there.'"⁷¹ He is, in other words, critical of the subject-object duality posited during the Scientific Revolution. Descartes sought epistemological clarity through this duality and was optimistic about the ends to which resulting knowledge might be mobilized. Morton is skeptical about that project, especially with regard to the human-nature dualism. Despairing about the social and ecological consequences that such a distinction has wrought, he therefore recommends a total disavowal of "Nature" in environmental aesthetics.

Bruno Latour seems not to be tempted to discard nature as a concept. Rather, in *The Politics of Nature*, he wants to know what a theory of collective action would look like if the linkages among social power, scientific discourse, and the concept of nature were acknowledged. He finds the most promising means for achieving this articulation in political ecology, arguing somewhat triumphantly that "political ecology marks the golden age of the social sciences finally freed from modernism"—i.e., unhinged from the need to discover, endorse and defend universal truths about human existence.⁷² Latour illuminates the paradigm shift:

For the moment, 'nature' still has that resonance that 'man' had twenty or forty years ago, as the unchallengeable, blinding, universal category against the background of which 'culture' stands out clearly and distinctly, eternally particular. 'Nature' is thus an unmarked category, while 'culture' is marked. Now, however, through a movement just as vast in scope, political ecology proposes to do for nature what feminism undertook to do and is still undertaking to do for man: wipe out the ancient self-evidence with which it was taken a bit too hastily as if it were all there is.⁷³

DENATURING NATURAL LAW

For centuries, desire for intelligibility and clarity has led to the suggestion that nature—what *is*—holds some kind of interpretive key for what *should be*.⁷⁴ The history of natural law interpretation gives a clear account of that dynamic, for every account of natural law morality is predicated upon an interpretation of

70 Morton, *Ecology without Nature*, 125, 135. Morton is referring to Descartes' famous distinction between the realm of thinking mind and the realm of corporeal substance, or externalities.

71 Morton, *Ecology without Nature*, 205.

72 Latour, *The Politics of Nature*, 226.

73 Latour, *The Politics of Nature*, 49.

74 First codified by David Hume in the seventeenth century, the "fact-value" distinction—also known as the "is-ought" distinction—has become a major point of philosophical conversation. The upshot is that the distinction between facts and values, or *is* and *ought*, has become murky indeed. To assume that the former points directly to the latter is naïve, for the modernist confidence in objectivity has been roundly undermined. Perceptions of nature are under primary scrutiny.

what nature conveys. This was as true for Thomas Aquinas and Hugo Grotius as it has been for twentieth-century “new natural lawyers” like Germain Grisez, John Finnis and Robert George.

Yet the foregoing has indicated how it is no longer the case that we can assume nature to be a self-evident or neutral category, for there is much interpretation written in to what we perceive to be the “facts” of nature. In the apt description of philosopher Craig A. Boyd, whose narrative approach is deeply informed by the philosophical claims of Alisdair MacIntyre:

Those who wish to defend natural law morality must distinguish among the competing accounts of nature, yet these competing accounts of nature are embedded in particular contexts with particular narratives that shape the use of the term. The term has often been invoked to defend local or cultural customs; for example, the cultural belief that women were inferior to men was seen as part of the ancient and medieval understanding of nature, and clearly represents the institutionalization of sexism.⁷⁵

There lurks the temptation to naturalize the social. Hence, the language of nature remains important, but the objectivity of our perceptions and evaluations of nature—whether philosophical, theological, or scientific—is frequently less straightforward than it seems since interpretations are shaped by “particular contexts with particular narratives.”

In the hopes of getting a (better) grip on the variety of ways that the term “nature” is mobilized, Boyd offers a helpful schematic. He distinguishes among three different meanings of nature, with an eye towards their significance for natural law theory.⁷⁶ *Nature*¹ is basically a modern scientific naturalist view of nature—that is, a material reality that can be “objectivized, studied, and manipulated” reliably and without recourse to metaphysical or teleological questions. *Nature*² refers to that which is distinct from grace, interpreted especially by Reformed theologians as “a principle of corruption.” *Nature*³ is an “ontological category that reveals to us what a being’s essential *telos* is,” as exemplified by Aristotle and Aquinas.⁷⁷ While we could quibble with these categories and incorporate more ways that the term functions, Boyd’s analysis is helpful for making visible several key points in the consideration of the meaning of nature in theological and ethical contexts.⁷⁸ The question that Bruno Latour has proposed—“what properties would nature have if it no longer had the capacity to suspend public discus-

75 Craig A. Boyd, *A Shared Morality: A Narrative Defense of Natural Law Ethics* (Grand Rapids: Brazos Press, 2007), 37.

76 Other relevant schematics that extend beyond the scope of this essay include those given by Kate Soper in *What is Nature?* and John Habgood in *The Concept of Nature*.

77 Boyd, *A Shared Morality*, 39-40.

78 Boyd’s important book engages and responds to what he sees as the strongest interdisciplinary challenges to natural law theory to date and proposes that a sufficient natural law morality requires an accompanying virtue ethic. For an overview, see my review of his book in the *Journal of the Society of Christian Ethics* (forthcoming, Spring/Summer 2011).

sion?”—is ripe for theologians and ethicists to consider, especially with regard to natural law theory.⁷⁹

One problem in this discourse is that the different functions filled by the concept of “nature” can be collapsed and used interchangeably, without signaling the shift. *Nature*¹ and *nature*³ are particularly susceptible to conflation.⁸⁰ In such a case, nature becomes something of a trump card and a conversation-stopper—it suspends discourse. One upshot, then, is that any practicable natural law theory must attend very carefully and explicitly to the construction and deployment of the term “nature.” From what sources is this view being drawn? What are key challenges to its interpretive authority?⁸¹ This latter question is especially important.

Selectivity without sufficient accountability is one mechanism by which description morphs into prescription in the context of natural law theory. That is, if key objections or challenges to a view of nature are swept under the rug, many a contingent interpretation can quickly come to seem universalizable. (Adjectival and adverbial forms—*natural*, *naturally*—present a particularly slippery way of ascribing normativity while skirting critical engagement.) Since natural law theory deals with a topic that has been abundantly invoked in the interests of power throughout history, the imperative of accountability is all the more important. In the context of natural law theory, then, one major challenge is to parse what is universally true and enduring from what is culturally contingent and mutable; and, from there, to grapple with the question of whether and how this knowledge constitutes some sort of basis for morality. As the foregoing analysis has indicated in a range of ways, two domains seem particularly in need of such critical attention in moral discourse: gender and sexual ethics, and ecology and environmental ethics.

Natural law theorizing must also become truly interdisciplinary, and this includes the suggestion that proponents of natural law morality must take seriously the deconstructive and historiographical criticisms enumerated above. This does not mean that natural law must become a theory of everything. Nor does it mean that any objection will automatically eviscerate natural law claims. Instead, it means that there are no genres of knowledge that natural law theorists should refuse to consider and, when reasonable, engage. Hence, while acknowledging how the content of nature is not necessarily self-evident, natural law theorists are also under an obligation to pursue what *can* be known about humans and the broader world in which we find ourselves. The task is to discern, with prudence and honesty, what can be known from what types of knowledge—and then, also, to recognize where the possibilities and plausibilities of knowledge fall short. Epis-

79 Latour, *The Politics of Nature*, 18.

80 For a discussion of how the concept of nature manifests some of these difficulties in recent documents of Benedict XVI, see Maura Ryan, “A New Shade of Green? Nature, Freedom, and Sexual Difference in *Caritas in veritate*,” *Theological Studies* 71, no. 2 (June 2010): 335-349.

81 For an excellent feminist appraisal of natural law theory in light of its theological and ethical possibilities as well as its historical vagaries, see Cristina L. Traina, *Feminist Ethics and Natural Law: The End of the Anathemas* (Washington, D.C.: Georgetown University Press, 1999).

temic humility is a key outcome of interdisciplinary engagement.

A final point about a denatured approach to natural law theorizing is that dynamism and openness should constitute the discourse. Partly this is because we are ever gaining clarity about how nature *means* in a variety of contexts, from the scientific to the social. And partly it is because, as both Thomas Aquinas and contemporary ecologists would agree, dynamism is a principle of being and knowing in this world. These factors are not in themselves antithetical to the perception of order and the schematization of complex relationships under the rubric of nature; but they do suggest that the ever-shifting complexity of the subject matter is worth taking seriously.

We are the producers of polysemic nature. The norms according to which we do so will remain a topic of great significance for moral theorists. Our moral interpretations might hit the mark; they might go astray. We must be willing to revisit and revise tired assumptions; we should engage in conversations that may show us better ways of thinking. For while nature is *integral* to ethics, it is not self-evident. It is far from monolithic. And it should no longer manifest in moral discourse—especially natural law theory—as an uninterrogated trump card. We know enough about nature, now, to know that nature alone is not enough.

CONCLUSION

We are in the moment when, as Latour has beautifully phrased it, nature is becoming a marked category. Nature is unassailably multiple. It is historical. It evades being under the purview solely of philosophy, theology, or science. It is a term to which so many meanings have been attributed, and which has been put to so many uses, that it is increasingly what we make of it. *How* nature is deployed as a category and norm is varied, but it has significant consequences. The task of this essay has been to depict and grapple with some of these complexities in a constructively deconstructive way, for nature is—and will remain—an important locus for conversations about theology, ethics, and science. And while we will never rid ourselves entirely of invisible assumptions, we may succeed in diminishing their preponderance in our plausibility structures. My suggestion is that, if it is marked well, nature need no longer perpetuate the ethical vagaries so endemic to an unmarked category.