

# ENVIRONMENT AFTER NATURE: TIME FOR A NEW VISION<sup>1</sup>

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## Abstract

Environmentalism clings to a limited vision of environment-as-biophysical nature. I trace the origin of this vision in progressive understandings of environment over time, and note resonances with our understandings of science and religion. In both cases, an assumed binary of nature and culture is at the heart of the problem. Among other scholars, Bruno Latour has diagnosed the roots of this problem in modernity, and pointed to hybrid approaches that stress connection. The recent “death of environmentalism” debate suggests both the need and the challenge in defining this new vision of environment.

Environmentalism is today more about protecting a supposed “thing”—“the environment”—than advancing the worldview articulated by Sierra Club founder John Muir, who nearly a century ago observed, “When we try to pick out anything by itself, we find it hitched to everything else in the Universe.”<sup>2</sup>

## Introduction

Recently I left an enviable faculty position of thirteen years, sold my house on the ocean, and became director of an environmental studies program at a small liberal arts school in the US Pacific Northwest. I say this, so that when I say what I will say next you will not ignore me as some rabid anti-environmentalist:

I am anti-environment.

At least in the sense that environment is generally understood today, a taken-for-granted notion underlying everything from environmentalism to “environmentology.”<sup>3</sup> Somehow our notion of environment got wrapped up in our notion of nature, and with it came a whole host of conceptual binaries that effectively drive a wedge through any lasting resolution of environmental problems.

This is not a new argument; in fact, everything I cite to support my claim is someone else’s idea, not mine.<sup>4</sup> What is surprising is that so little of it has found its way into environmentalism. Thirtysomething years ago, around the time of the birth of the modern environmental movement, there was a great deal of low-hanging fruit to be picked, lots of obvious environmental problems that had pretty much been ignored up to then. Maybe this is why environmentalists didn’t want to spend too much time forging new conceptual tools: nature was imperiled, in some cases people were imperiled as a result, and the imperative was action, not talk. Well, thirtysomething years later, it’s no revelation that there are environmental problems; we’ve all tasted the low-hanging varieties. And, sadly, it’s no secret that many have proven rather indigestible, while the higher-up fruit has been virtually impossible to reach, let alone digest. Maybe it’s time to rethink—to paraphrase Neil Evernden—what exactly *is* this environment we struggle so hard to save.<sup>5</sup>

I offer no magic here: environmental problems will not go away once we forge a new vision of environment. Indeed, when you start walking down this path you may feel more and more uncertain as to where we are going. I’ve learned that many environmentalists are impatient folks: climate change demands an immediate and lasting response, biodiversity is being lost at an alarming rate, more toxins are finding their nefarious way into pregnant women, more families in the Third World are working more degraded lands, harvesting less and less each year. The imperative of decisive and timely action is inarguable. And this, perhaps, is the very problem: we have been so busy talking about strategy, so deeply committed to proclaiming facts and prescribing action, that we’ve not

taken the risk to think deeply. When we do, as I will suggest below, we may find that not only our notion of environment is in need of repair, but also our notions of the sources of authority upon which we often justify environmental concern, science and religion being the most prominent.

If there is one thing I want to retrieve about environment, it is the vision of connectedness articulated—perhaps a bit expansively—in John Muir’s famous quote cited above. Connections matter empirically, morally, politically. The best of our knowledge of nature, of scientific inquiry, of religious wisdom is the sense of connection they offer. The worst of environment in the contemporary sense is the binary disconnect it presumes by its very utterance. As such, environment echoes a recent usage of nature as biophysical reality separate from culture—whether above or below us in beauty, intelligence, worth, or moral considerability.<sup>6</sup> Even to say that we are connected to nature/environment itself presumes a disconnect. Would you ever need to argue that there is a connection between mother and child, lover and lover, predator and prey? No, because these are relational terms: a mother is a mother by virtue of mothering a child, a predator seeks prey which avoids predator.

Recently, there has been a great deal of talk about whether or not there are connections between science and religion, but here too the very discussion presumes a disconnect—one enforced by the disconnection police, those who for many good reasons wish for science to remain distinct from, say, creationism, or those who wish for religion to be more than, say, an empirical experiment. And the disconnect between science and religion is perfectly analogous to the disconnect between nature and culture, a conceptual gap that leaves us resorting to the unimaginative language of seeking some “balance” between environment and society.

Connection is emphasized in other essays in this volume, though it may take different forms. The geographer David Livingstone’s attention to locating our visions of nature, science, and religion in space, and the historian John Brooke’s attention to doing the same in time, suggest that concepts arise from the connections we engage in via our situated practice. Whether or not we emphasize connectedness, it is our located connections that help explain what we emphasize in the first place. Connection is also emphasized by a wide array of fellow contributors struggling to define the wonderful yet convoluted relationship between science, religion, and nature, whether this involves delving into the inner lives of primates (Barbara King), the complex hybrids of genetic technology (Andrew Lustig), the imagination and practice of landscape in the Mediterranean (Martha Henderson), a new metaphysics of complexity (Robert Ulanowicz), or the binding of facts and values into visions of nature as theologies (Willem Drees). What I wish to discuss here is how one prominent popular sense of nature as the biophysical world has fostered disconnect in contemporary environmentalist thought and practice; thus, in restoring a sense of connection, environmentalists may well have to leave behind this treasured vision of nature.

To restore relationality, connection, to environment requires a new vision only in listening to all the existing visions that entail relationality—this is not an entirely new vision! When we do this in a wholehearted way, we find that our other guiding landmarks such as science and religion change too. This is threatening to the very best of us. It sounds abstract, of little practical value. There are lots of good reasons to turn away. Now would be a good time. But if you can be patient for a little while, I can at least sketch a broad-brushstroke picture for you.

### **The environment, defined**

You would think that one easy way to resolve this semantic issue is simply to go to a dictionary. What we find is that environment is a relatively recent word, by no means as old as nature, so perhaps it is understandable that environment has increasingly been understood in terms of nature.

But this was not always so. The *Oxford English Dictionary*<sup>7</sup> traces environment back to the early 17<sup>th</sup> century, a mere 400 years ago: at this incipient moment, and for the next two centuries, environment was used in its etymologically direct sense as that which environs or surrounds. Yet by the mid-19<sup>th</sup> century a more specific sense had arisen, of environment as consisting of those surroundings necessary to the development of moral character or biological life. This suggests a binary, stated explicitly in the *Webster's Dictionary*<sup>8</sup> second definition (the first being that which surrounds) as environment consisting of either (a) the biophysical factors that determine the life of an organism, or (b) the sociocultural conditions that influence human life. What we see already, tracing back to the mid-19<sup>th</sup> century, is a parsing out of environment into natural or cultural surroundings, both of which are significant but dissimilar enough to warrant distinction.

The third step in the evolution of our notion of environment is much more recent, possibly dating back only several decades. To get at this most recent step, consider Rachel Carson's *Silent Spring*,<sup>9</sup> which to many marks the birth of the modern environmental movement. Carson begins her famous book with a brief fable, then immediately presents her notion of environment at the start of the second chapter: "The history of life on earth has been a history of interaction between living things and their surroundings. To a large extent, the physical form and the habits of the earth's vegetation and its animal life have been molded by the environment" (p. 5). To Carson, the environment is our environment, our biophysical surroundings, to which we are connected. *Silent Spring* in many ways echoes Carson's 1951 bestselling *The Sea Around Us* in stressing connection.<sup>10</sup>

Fast-forward to the major environmental agencies today. As noted on its website, the US Environmental Protection Agency aims to "protect human health and the environment," working for "a cleaner, healthier environment for the American people." Is this not Carson's very wish, born of the damage wrought by DDT to chicks and now spread to a thousand and one connections necessary to life and well-being? Or what of the UK Environment Agency, whose job it is to "look after your environment and make it a better place—for you, and for future generations"? Or what of the United Nations Environment Programme, whose motto is "Environment for Development"? These agencies have by no means cast their backs on the received notion of environment as a connection with our biophysical surroundings.

But a closer look behind the rhetoric reveals a common set of compartments into which the environment is divided: the European Environment Agency website features content on acidification, air quality, biodiversity change, chemicals, climate change, and so forth. Each of these compartments is given due scientific and policy scrutiny. This attention to the environment would have been lauded by Carson, but there is something that has been lost, too, in its bureaucratized management: the environment as connection. Now, it is a an object among other objects to be managed. Environment is little different from roads, or the economy, or a disease outbreak. All of these are things, important to human well-being to be sure, but things nonetheless.

What has happened? Environment started as a relation, a sense of connection, then turned into a thing. First a generic expression of one's surroundings, then either one's connection to biophysical or sociocultural surroundings (the two tacitly understood as distinct), then just the biophysical stuff constituting our surroundings: air, water, and so forth. Each of these three steps is related: from surroundings to biophysical (or, alternately, human) surroundings to simply biophysical reality, what many people would call nature. The result is a double disconnect: first, moving from environment as surroundings to environment as a thing, and second, splitting environment into nature and culture sets of things along the way.

This observation that the term environment has not simply dropped out of the sky in some immutable form has not been entirely lost on its commentators. In his comprehensive history of the environmental sciences, for instance, Peter Bowler admits that this very category is a recent reconstruction of those physical and biological sciences that are relevant to understanding environmental problems. Yet he too conflates environment with Nature (his capitalization) in tracing its cultural history, thus failing to problematize the very process by which environment became understood as biophysical nature.<sup>11</sup>

Yet I am not sure you will be convinced by the above, especially in how I have characterized the final chapter of this drama. After all, don't we hear environmentalists often speak of our connection with nature in a quite Caronesque way? What is fascinating about contemporary connection-talk, however, is that it can lead in such differing directions: the environmentalist asserts our connection with nature in order to bring the environment back as a dominant feature of the human equation, whereas many of those derided as anti-environmentalists assert our connection with nature in order to bring people back as a dominant feature of the environmental equation!<sup>12</sup> Both of these efforts invoke a rhetoric of connection to assert not connection but reduction, championing biophysical or human reality in environmental controversies, and thus adopting one of the two poles implied in the evolution of the concept of environment.

### **The dual authorities: science and religion**

The problem with our concept of environment is not restricted to environmental issues; indeed, it did not arise there. To get a broader sense of how environment came to be understood as (threatened) biophysical stuff, we need to reconsider our ways of understanding science and religion as well. Why science and religion? One important reason is that they play a major role as domains of epistemic, moral, cultural, indeed even political authority. How do we decide what is true? what (or who) is right? The contribution of science and religion to these questions is immense. How many times have you read some pronouncement on the global environment, or for that matter war, or stem cell research, or consumerism, or sexual behavior that cited a major scientist or religious organization? Though not all pronouncements of true and right are founded immediately in science and religion, their authoritative role in many sectors of society is inarguable, and the environment is certainly no exception.

There has been considerable recent interest in the relationship between science and religion. Though many of us wish to maintain a respect and openness to both science and religion, we often suspect that they are supporting rather different pronouncements on current issues, and none of us enjoys cognitive dissonance, so the inevitable question arises: can science and religion somehow be harmonized? Are they inevitably in conflict? How could we possibly live our lives in accordance with some version of both?

Recently, I had the pleasure of organizing a research and lecture series on the topic, culminating in the volume *Science, Religion, and the Human Experience*.<sup>13</sup> What I learned in examining popular and scholarly beliefs about science and religion is that they are generally assumed to fall into either one or two domains. If science and religion fall in one domain, they can be understood as either in conflict or in harmony; if two domains, they are understood as essentially independent, thus without conflict (nor much harmony). It is common to hear of conflict accounts: think, for instance, of struggles in the United States over incorporating evolutionary theory in school science curricula. Here, science and religion are understood as vying for the same turf (the truth about the origin of human life), hence conflict.

One common way to avoid these conflicts between science and religion is to separate them, hence the popularity of independence accounts, pronouncements that science and religion are two entirely different things mapping onto two entirely separate domains. A typical approach is that championed by the late scientist Stephen Jay Gould in his book *Rocks of Ages*.<sup>14</sup> Gould's NOMA (non-overlapping magisteria) account relegates science to the realm of facts and religion to that of values: both are essential in understanding the human condition, but science does a bad job when it gets mixed with values, and religion has little business making pronouncements of fact.<sup>15</sup>

Yet many people desire more than this separatist account of science and religion. Surely facts and values, hence science and religion, are not as distinct as the independence account would have it? Following this inclination, we find many current attempts to harmonize science and religion, to bring them into one domain. What is especially significant here is that this shared domain is often the environment. Consider this opening paragraph to a statement signed in 1992 by nearly 90 major American scientists and religious leaders:<sup>16</sup>

We are people of faith and of science who, for centuries, often have traveled different roads. In a time of environmental crisis, we find these roads converging...Our two ancient, sometimes antagonistic, traditions now reach out to one another in a common endeavor to preserve the home we share.

The statement continues:

We believe that science and religion, working together, have an essential contribution to make toward any significant mitigation and resolution of the world environmental crisis. What good are the most fervent moral imperatives if we do not understand the dangers and how to avoid them? What good is all the data in the world without a steadfast moral compass?

We hear in this statement shades of Gould's magisteria: science provides understanding and data, religion provides a moral compass. But, though they have their distinct identities, they have now come together in a common agenda of environmental protection.

This statement is not unique: it echoes a broad sentiment to harmonize science and religion in building coalitions to save the environment. A more recent version, titled "Earth's Climate Embraces Us All,"<sup>17</sup> was signed by a large number of prominent religious leaders and scientists to support the Climate Stewardship Act then under consideration by the US Senate. This statement similarly acknowledges the differences between science and religion, for instance in stating that "We do not have to agree on how and why the world was created in order to work together to preserve it for posterity." Yet it posits the global environment, specifically climate, to be a unifying domain of concern.

What sort of notion of environment is implied in these accounts of the relationship between science and religion? Do we detect a sense of environment as connection with that which surrounds? as our physical surroundings? as the biophysical realm itself, without necessary connection to us? Here the distinctions become more subtle. It would seem that the recent regathering of science and religion over environmental concern suggests the very sense of connection I stressed above. But science and religion themselves continue to be relegated to Gould's magisteria, retaining their dual-frequency heartbeat even in the harmony accounts. And I have not told the full story: for every publication bringing science and religion together over the environment, there is another expressing alarm that bringing religion in will compromise scientific rationality in environmental decisionmaking.<sup>18</sup>

No, we have not yet dug deep enough to understand how environment became a thing, became stuff. Science and religion have been subjected to the same forge that cast environment in its new

shape, a forge in which the binary of nature and culture has served as a two-compartment hammering mold. Evidence comes from the mind of Gould himself, the multisyllabic NOMA echoing a simple dichotomy between fact and value that pervades even the harmony accounts of science and religion. What is a fact? What is a value? How are they different? The simplest way to understand their difference is to say that facts cling to nature, and values to culture: facts are true by virtue of their correspondence to reality, i.e. biophysical nature, and values are meaningful by virtue of their connection to the valuer, i.e. culture.

To the extent that environment is understood as nature, and to the extent that nature is understood as revealed by science, environment inevitably carries an objectivist tinge, a sense of environment as stuff, and a separation is assumed between us and environment that must presumably be overcome. We may be connected to the environment, we are concerned about it, we and it are perhaps even one, but we and it started as two, and this assumed binary point of origin inevitably weakens any sense of connection implied in environment. Environment becomes a schizophrenic term when hard, cold scientific rationality is paired up with soft, warm spiritual impulse, not because science and religion are necessarily so distinct, but because they too have been progressively defined over time in relation to this sacred binary of nature and culture. In many ways, environment-as-connection was doomed, because relation is a fragile thing in an age ruled by the dichotomous key of nature vs. culture. Environment was faced with two choices: become the whim, the desire, the imagination of people, or become a hard reality as separate from people as quarks. Environment, under the guiding authority of science and religion, has in some contexts become both, and though this looks like connection it maintains the very seed of alienation it attempts to overcome.

### **Latour's new vision: Counting beyond two**

So, where did this binary of nature and culture come from, this bi-monocular vision of science, religion, and environment? Many environmental accounts lament modern society's rejection of its dependence upon nature, often implying some oneness of old, perhaps citing organismic metaphors such as Gaia<sup>19</sup> as reinforcement. These accounts may be true but they are certainly also trite: yes, the social organization of modernity is more complex than some earlier societies, and their connections with biophysical reality have become more distanced in space and time.<sup>20</sup> But these accounts have, in invoking modernist notions of nature, retained the very conceptual binary they wish to dispel. It is not a trivial point that virtually all premodern societies have no word for nature: of course they have plenty of words for birds, and soil, and climate, and medicinal herbs, but no overarching category of nature in which nonhuman items are lumped. There was/is a natured culture, a cultured nature, a set of polluted categories in modernist terms. We thus need to dig deeper than these accounts to understand how environment has become stuff, how science and religion cannot in their current form help us save the environment.

I wish to summarize some of the work of Bruno Latour in digging deeper. Latour has discovered a curious paradox about modernity: the more we mix nature and culture, the more we speak of purifying the two. As but one example he cites in *We Have Never Been Modern*:<sup>21</sup>

The smallest AIDS virus takes you from sex to the unconscious, then to Africa, tissue cultures, DNA and San Francisco, but the analysts, thinkers, journalists and decision-makers will slice the delicate network traced by the virus for you into tidy compartments where you will find only science, only economy, only social phenomena, only local news, only sentiment, only sex.

And all of these compartments ultimately parse into one of two boxes, as if two very powerful magnets draw any particle attempting the treacherous middle path to one or the other pole. These magnets are recharged bit by bit, each time we defend evolutionary science as objective (i.e.,

untainted by cultural bias), each time we approach American evangelical religious belief as a matter of personal faith (i.e., unconstrained by the laws of nature). Unwittingly, we join the disconnection police in conceptually disentangling an increasingly entangled nature-culture. And when it comes time to make sense of environmental problems, what options have we but to turn environment either into natural reality, or cultural construction? If the former, environment awaits the testimony of science as to its objectively-verifiable plight; if the latter, environment serves as at best an important source of personal inspiration, or at worst a white middle-class special interest. Scientific realism and cultural constructivism are to Latour the only tongues an impoverished modernity can speak.

Latour has been known as a cofounder of actor-network theory, or ANT. It is a term he has repudiated.<sup>22</sup> But it implies a sense of things as a result of connection. Actors could be anything: the AIDS virus, African farmers, the San Francisco mayor, simian demographics, sexual desire. Each is what it is only in relation to the others, thus the network. Latour's work stresses process: things could be different. It also stresses hybridity: the categories of nature and culture (and other binaries, principally local and global) are discarded as useless. Time to count beyond two.

Contrast a network with a system—a concept beloved of many environmentalists.<sup>23</sup> A system has stocks (something being stored) and flows (something being moved from one stock to another). The system only makes sense where there is a relative purity to the thing being stored and moved around. It could be water, or carbon dioxide, or genetic information. This also gives it a consistent language to use, e.g., the language of fluid mechanics. The environment as a giant biophysical system is comprised of many natural systems such as hydrology, climate, and geomorphology, affected by cultural systems such as politics, economics, and demography. Each has a relative purity, though all connect to the extent that one can be translated into the other. Ultimately, any one thing (a water droplet, a political uprising) is relegated to its particular system, then ultimately to nature or culture as a result of the system to which it belongs. Systems make sense as analytical constructs, but their implied purity actually takes us away from the sense of connection environmentalists may intend by invoking a “systems approach” or “whole-systems view.” Systems are, in short, highly refined networks, sort of a refined-sugar way of looking at the hybrid reality environmentalists confront daily.

Science and religion are often understood as two major, contrasting ways of knowing, and this interests Latour because of what it reveals about modernity. Latour speaks of the modernist notion of knowledge-versus-belief in terms of the duality of “fact” and “fetish.”<sup>24</sup> The modernist is to Latour a hammer-wielding iconoclast, a critic ready and able to smash idols to bits. The fact must be shown to be unfabricated; the fetish must (an even more difficult challenge!) be shown to be arising from some autonomous god or gods. In both cases illusion is understood as fabrication masking as reality.

Given modernity's penchant against fabrication, science alone stands as our guide to reality, and religion becomes consigned to the cultural curio shop of inspirational moments. Yet Latour is unmoved by the impulse that led to this tidy duality (p. 267):

Once theory has made its analytical cut, once the noise of the breaking bones has been heard, it is no longer possible to account for how we know, how we construct, how to live the Good Life. We are left to try and patch back together subjects and objects, words and world, society and nature, mind and matter—those shards that were made to render any reconciliation impossible.

What, then, is Latour's solution? To be sure, he recognizes the challenge he has created for himself, the challenge facing anyone who wishes to speak in a more connected way (pp. 266-67):

Why is it that we cannot readily recover for our ordinary speech what is so tantalizingly offered by practice? Why is it that associations of humans and nonhumans always become, once clarified, rectified, and straightened out, something so utterly different: two opposing sides in a war between subjects and objects?

His solution has been elaborated more recently in *Politics of Nature*.<sup>25</sup> Here, Latour makes what would otherwise be a provocative argument: political ecology (what we would call environmentalism) must let go of nature, indeed “has nothing at all to do with ‘nature’—that blend of Greek politics, French Cartesianism and American parks” (pp. 4-5). Wait, isn't this exactly the option we need to guard against? Perhaps Michael Soulé and Gary Lease were right when they wrote of theorists such as Latour that “Certain contemporary forms of intellectual and social relativism can be just as destructive to nature as bulldozers and chain saws”<sup>26</sup> No, as suggested above Latour is as weary of constructivism as he is of realism. Latour's way out is not to declare nature a cultural construction, look down his nose at scientists backing environmental causes, and retire to his ivory tower. He is attempting something different here, and his best way to describe it is, as foreshadowed in *We Have Never Been Modern*, by recourse to political metaphors (Constitution, Parliament) and hybrid/processual metaphors (collectives, circuits). Latour knows that there is no way to resuscitate a language already binarized, so he will not avail himself of the ready solutions proposed via the nature (or culture)-based frameworks of meaning modernity offers. His preferred metaphors are messy, they emphasize a panoply of actors that are always more than two, they dwell on process versus static substance, there are no trump cards of Nature or Culture (or Science or Religion) to offer some straight road ahead. All actors are provisionally included, all sources of expertise—the Scientist, the Economist, the Moralist, and others—given due consideration.

The details of Latour's solution in *Politics of Nature* are as elaborate as his Gallic style of argument, but what you perceive is an emphasis on connection, a new metaphysics if you will, in which one could potentially recover the original, expanded-circle notion of environment, and revivify science and religion in the process. Once, in Latour's terms, the “mononaturalism” rendered by an objectivist caricature of science is released, once the inevitable “multiculturalism”—privatizing and subjectivizing religion and other sources of inspiration to keep them out of the way of science and politics—is understood for its fracturing implications, then what is left is the task of building a “common world”: “If mononaturalism combined with multiculturalism strikes you as an imposture, if you really no longer dare to be modern, if the old form of the future really has no future, then must we not put back on the table the venerable terminology of democracy?” (pp. 227-228).

### **A new vision: The death and rebirth of environment**

Latour's perspective provides both an ontology of connection, and a critique of the epistemology of disconnection. Greater connection is not, then, needed between people and the environment; this expression comes from binary seed, and will get us no further than we have already come, conceptually, politically, or otherwise. Environment is a way of recognizing the larger circle: it is not the natural stuff to which we must remember our connection, it is the connection itself, which includes, yet moves far beyond, this natural stuff. There are many connections we have forgotten, many interweavings we neglect; there is nothing special at all to environment in the narrow sense, but everything special to environment in the larger sense. There is, similarly, nothing special to science and religion, but everything special to the sense of engagement, understanding, and meaningful action offered through multiple scientific and religious pathways. If we can let go of binaries we may get somewhere.

Recently, there has been something of a stir in contemporary American environmentalism, motivated in no small part due to the shifting political winds ushered in by the Bush administration. One controversial argument that emerged is known as the “death of environmentalism”: its authors, Michael Shellenberger and Ted Nordhaus, are featured in the epigraph at top.<sup>27</sup> The charges put out by Shellenberger and Nordhaus were serious: “Today environmentalism is just another special interest...Most of the movement’s leading thinkers, funders and advocates do not question their most basic assumptions about who we are, what we stand for, and what it is that we should be doing.”<sup>28</sup> The rejoinders were equally strident. For instance, Carl Pope of the Sierra Club argued:

Shellenberger and Nordhaus complain that “Most environmentalists don't think of ‘the environment’ as a mental category at all—they think of it as a real “thing” to be protected and defended. They think of themselves, literally, as representatives and defenders of this thing.” So? Without being too precious, the environment is a real thing. There is a global carbon cycle, human interventions are a small if meaningful part of the evolutionary process, homo sapiens depend upon a complex web of both geochemical and biological processes.<sup>29</sup>

We hear clear overtones in these quotes of the very issue at hand in this essay. To Pope’s defense, environment-as-thing has led environmentalism to some stunning discoveries and important, albeit generally limited, victories over the last thirty years. Though Shellenberger and Nordhaus use climate change as their prime example of the ineffectiveness of environmentalism, climate change is in some ways a perfect example of the kinds of issues that environment-as-thing is best at clarifying. Think of the amount of computer modeling, the careful studies of air-water interactions in climate cycles, the endless considerations of vegetative feedback loops, all the efforts of science that have all proven indispensable in gaining even an imperfect idea of where the global climate system seems to be heading—all very impressive in its explication of biophysical processes and human impacts. But, as Shellenberger and Nordhaus argue, global warming continues relatively unabated. And the hardest and possibly most important environmental problems demand a language and process that speak of both fact and value, much along the lines of Latour’s preferred “factish” approach to blending fact and fetish—practices generally relegated to the binary of science and religion—in recognizing that culture and nature are interwoven to the point that these über-categories are useless, indeed harmful in the long run.

I am not sure whether Shellenberger and Nordhaus’ argument over the death of environmentalism is primarily about means or ends: certainly a great deal of critique has focused on their discussion of the effectiveness of various means, again reinforcing my concern that environmentalists have difficulty moving beyond strategy to think more deeply about just what sort of environment they struggle so hard to save. But the discussion is a good one. Will environmentalists craft a new vision of environment? Will they continue as a special interest, or will they realize there is no trump card they or anyone else holds, and instead forge a vision of the larger circle, perhaps one founded in terms of democracy as Latour prefers, or maybe a vision of environment molded in another fresh language? Or will Shellenberger and Nordhaus’ notion of post-environmentalism take root, leaving environmentalists behind? It is up to those who care most about the environment to work for a rebirth of the vision of connectedness that aroused such a passion and dedication in the first place. Environment is about more than nature; it is more than some recent meeting-ground between an agreed-upon division of intellectual labor between science and religion. New wine cannot be poured into old wineskins. It is time for a new—at least renewed—vision of environment.

## Notes

<sup>1</sup> This 2006 essay arises from a multi-year collaborative project I directed called New Visions of Nature, Science, and Religion (hence the title; see [www.newvisions.ucsb.edu](http://www.newvisions.ucsb.edu)), and is expected to be published in 2008 in a volume emanating from this effort; please do not cite prior to publication without express permission. I acknowledge the helpful input of New Visions contributors at our May 2006 workshop, plus that of Jennifer Bernstein, Evan Berry, and Brendon Larson. It is always dangerous to attempt such a grand argument in such a small space, so I accept responsibility for all remaining lapses.

<sup>2</sup> Michael Shellenberger and Ted Nordhaus, *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World* (Grist Magazine, 2005 [cited January 13 2005]); available from <http://grist.org/news/maindish/2005/01/13/doe-reprint>.

<sup>3</sup> This neologism has recently been promoted by American Honda Motor Co. to suggest their commitment to environmental leadership. See <http://environmentology.honda.com>.

<sup>4</sup> As but one of a host of related arguments, Tim Ingold has noted how the now-ubiquitous notion of a global environment represents the culmination of the process of separation I allude to in this essay, where *our* environment has become *the* environment writ large. See Tim Ingold, "Globes and Spheres: The Topology of Environmentalism," in *Environmentalism: The View from Anthropology*, ed. Kay Milton (London: Routledge, 1993). A very clear and straightforward discussion of the epistemological path I recommend here is provided by Katherine Hayles; see N. Katherine Hayles, "Searching for Common Ground," in *Reinventing Nature? Responses to Postmodern Deconstruction*, ed. Michael E. Soulé and Gary Lease (Washington, D.C.: Island Press, 1995).

<sup>5</sup> Neil Evernden, *The Social Creation of Nature* (Baltimore: The Johns Hopkins Press, 1993), xi.

<sup>6</sup> There is an important story I am not fully recounting here as to how nature, itself a polyvalent concept, became generally understood as a unified biophysical reality; for some background, see e.g. Raymond Williams, "Ideas of Nature," in *Problems in Materialism and Culture* (London: Verso Press, 1980). In one provocative argument, geographer Kenneth Olwig has maintained that our prevalent understanding of nature changed from generative process to biophysical reality in large part via the politicized European notion of landscape; see Kenneth Robert Olwig, *Landscape, Nature, and the Body Politic: From Britain's Renaissance to America's New World* (Madison, WI: University of Wisconsin Press, 2002).

<sup>7</sup> Entry from second edition, 1989. Accessed via <http://dictionary.oed.com>.

<sup>8</sup> Entry from third edition, 2002. Accessed via <http://mwu.eb.com>.

<sup>9</sup> Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962).

<sup>10</sup> For recent commentaries on Carson that extend this notion of environment-as-connection, see Finis Dunaway, "The Ecological Sublime," *Raritan* 25, no. 2 (2005), Philip Cafaro, "Rachel Carson's Environmental Ethics," *Worldviews: Environment Culture Religion* 6, no. 1 (2002).

<sup>11</sup> Peter J. Bowler, *The Norton History of the Environmental Sciences* (New York: W.W. Norton and Co., Inc., 1993).

<sup>12</sup> For one recent environmental issue featuring both of these groups, see James D. Proctor, "Whose Nature? The Contested Moral Terrain of Ancient Forests," in *Uncommon Ground: Toward Reinventing Nature*, ed. William Cronon (New York: W.W. Norton, 1995).

<sup>13</sup> For greater discussion of this one/two-domain theory, see James D. Proctor, "Introduction: Rethinking Science and Religion," in *Science, Religion, and the Human Experience*, ed. James D. Proctor (New York: Oxford University Press, 2005).

- <sup>14</sup> Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life*, 1st ed., *The Library of Contemporary Thought* (New York: Ballantine Pub. Group, 1999).
- <sup>15</sup> In an address to the American Academy for the Advancement of Science, John Brooke, a contributor to this volume, has challenged the ready distinction between fact/value and science/religion as recommended by Gould; see John Hedley Brooke, "Shaping the Content of Science: Have Religious Beliefs Played a Role?," in *AAAS Symposium: Non-overlapping magisteria?* (Washington, D.C.: 2005).
- <sup>16</sup> Mission to Washington, "Declaration of the Mission to Washington," in *This Sacred Earth: Religion, Nature, Environment*, ed. Roger S. Gottlieb (New York: Routledge, 1996).
- <sup>17</sup> National Religious Partnership for the Environment, *Earth's Climate Embraces Us All: A Plea from Religion and Science for Action on Global Climate Change* (2004 [cited 9/12/04]; available from [www.nrpe.org](http://www.nrpe.org)).
- <sup>18</sup> As one example, see Paul R. Ehrlich and Anne H. Ehrlich, *Betrayal of Science and Reason: How Anti-Environmental Rhetoric Threatens Our Future* (Washington, D.C.: Island Press, 1996).
- <sup>19</sup> For a classic account, see James Lovelock, *Gaia: A New Look at Life on Earth* (Oxford: Oxford University Press, 1995).
- <sup>20</sup> Anthony Giddens, *The Consequences of Modernity* (Stanford: Stanford University Press, 1990).
- <sup>21</sup> Bruno Latour, *We Have Never Been Modern* (Cambridge, Massachusetts: Harvard University Press, 1993), 2-3.
- <sup>22</sup> Bruno Latour, "On Recalling Ant," in *Actor Network Theory and After*, ed. John Law and John Hassard (Oxford: Blackwell, 1999).
- <sup>23</sup> The use of systems concepts is extremely broad, running minimally from the integrative work of Gregory Bateson (*Mind and Nature: A Necessary Unity* [Toronto: Bantam Books, 1979]) to the recent establishment of systems biology (see [www.systemsbiology.org](http://www.systemsbiology.org)). What I present here emphasizes the general use of systems thought in environmental discourse and analysis.
- <sup>24</sup> Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge, Mass.: Harvard University Press, 1999).
- <sup>25</sup> Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy* (Cambridge, Mass.: Harvard University Press, 2004).
- <sup>26</sup> Michael E. Soulé and Gary Lease, "Preface," in *Reinventing Nature? Responses to Postmodern Deconstruction*, ed. Michael E. Soulé and Gary Lease (Washington, D.C.: Island Press, 1995), xvi.
- <sup>27</sup> An online summary and set of perspectives is provided by Grist Magazine; see <http://grist.org/news/maindish/2005/01/13/doe-intro>.
- <sup>28</sup> Shellenberger and Nordhaus, *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World*.
- <sup>29</sup> Carl Pope, *And Now for Something Completely Different* (Grist Magazine, 2005 [cited January 13 2005]); available from <http://www.grist.org/news/maindish/2005/01/13/pope-reprint/index.html>.

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