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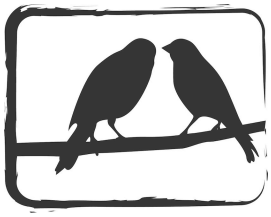

PROVOCATION

On the Poverty of Our Nomenclature

Eileen Crist
Department of Science and Technology in Society, Virginia Tech, USA

ABSTRACT This paper examines the recent proposal to christen our geological epoch "the Anthropocene." The reasoning offered for this new name is that humanity's enormous mark on the geological strata would be a discernible boundary to future geologists; therefore a change in nomenclature is called for to reflect our transition out of the Holocene (our epoch's current formal name). I argue, however, that the pitch for the Anthropocene goes well beyond this rationale. The Anthropocene has morphed into a discourse that is organizing the perception of a world picture (past, present, and future) through a set of ideas and prescriptions that is tenaciously anthropocentric; indeed, the championed name itself—Anthropocene, or the age of Man—evokes the human-centeredness that is at the root of our ecological predicament. The main argument of this paper is that the discourse of the Anthropocene refuses to challenge human dominion, proposing instead technological and managerial approaches that would make human dominion sustainable. By the same token, the Anthropocene discourse blocks from consideration the possibility of abolishing a way of life founded on the domination of nature. In conclusion, I submit that while technological and managerial approaches have a place in addressing ecological problems, our predicament primarily calls for a drastic pulling back and scaling down of the human presence—welcoming limitations of our numbers, economies, forms of habitation, and uses of land and sea, so that humanity may flourish together with the entire breadth of Life.

"Nature is gone … You are living on a used planet. If this bothers you, get over it. We now live in the Anthropocene—a geological epoch in which Earth's atmosphere, lithosphere and biosphere are shaped primarily by human forces." Erle Ellis

"When all is said and done, it is with an entire anthropology that we are at war. With the very idea of man." The Invisible Committee

Introducing the Anthropocene

The Anthropocene is a discursive development suddenly upon us, a proposed name for our geological epoch introduced at century's turn and now boasting hundreds of titles, a new journal, and over a quarter million hits on Google. This paper's thesis is an invitation to consider the shadowy repercussions of naming an epoch after ourselves: to consider that this name is neither a useful conceptual move nor an empirical no-brainer, but instead a reflection

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and reinforcement of the anthropocentric actionable worldview that generated "the Anthropocene"—with all its looming emergencies—in the first place. To make this argument I critically dissect the discourse of the Anthropocene.[1]

In approaching the Anthropocene as a discourse I do not impute a singular, ideological meaning to every scientist, environmental author, or reporter who uses the term. Indeed, this neologism is being widely and often casually deployed, partly because it is catchy and more seriously because it has instant appeal for those aware of the scope of humanity's impact on the biosphere. Simply using the term Anthropocene, however, does not substantively contribute to what I am calling its discourse—though compounding uses of the term are indirectly strengthening that discourse by boosting its legitimacy.

By discourse of the Anthropocene I refer to the advocacy and elaboration of rationales favoring the term in scientific, environmental, popular writings, and other media. The advocacy and rationales communicate a cohesive though not entirely homogeneous set of ideas, which merits the label "discourse." Analogously to a many-stranded rope that is solidly braided but not homogeneous, the Anthropocene discourse is constituted by a blend of interweaving and recurrent themes, variously developed or emphasized by its different exponents. Importantly, the discourse goes well beyond the Anthropocene's (probably uncontroversial) keystone rationale that humanity's stratigraphic imprint would be discernible to future geologists.

The Anthropocene themes braid; the braided "rope" is its discourse. Chief among its themes are the following: human population will continue to grow until it levels off at 9 or 10 billion; economic growth and consumer culture will remain the leading social models (many Anthropocene promoters see this as desirable, while a few are ambivalent); we now live on a domesticated planet, with wilderness[2] gone for good; we might put ecological doom-and-gloom to rest and embrace a more positive attitude about our prospects on a humanized planet; technology, including risky, centralized, and industrial-scale systems, should be embraced as our destiny and even our salvation; major technological fixes will likely be needed, including engineering climate and life; the human impact is "natural" (and not the expression, as I argue elsewhere, of a human species-supremacist planetary politics[3]); humans are godlike in power or at least a special kind of "intelligent life," as far as we know, "alone in the universe"; and the path forward lies in humanity embracing a managerial mindset and active stewardship of Earth's natural systems.

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[1] My thanks to anonymous reviewers of an earlier draft who enjoined me to clarify the meaning of the "discourse of the Anthropocene."

[2] Anthropocene exponents invoke the straw-man definition of "wilderness" as a completely untouched-by-humans state; this enables them to make an irrefutable claim that it is entirely gone. Defenders of wild nature, however, regard wilderness as large tracts of relatively undisturbed natural areas. (See Eric Sanderson *et al*., "The Human Footprint and the Last of the Wild," *Bioscience* 52, no.10, October (2002): 891-904 and Tim Caro *et al*., "Conservation in the Anthropocene," *Conservation Biology* 26, no. 1 (2011): 185-188 for discussion of remaining wildernesses.) In the words of environmental author Paul Kingsnorth, wilderness defence is not about the illusion of guarding pristine states of nature, but about "large-scale, functioning ecosystems … worth getting out of bed to protect from destruction." Paul Kingsnorth, "Dark Ecology," *Orion* January/February (2013).

[3] See Crist forthcoming 2014.

Of equal if not greater significance is what this discourse excludes from our range of vision: the possibility of challenging human rule. History's course has carved an ever-widening swath of domination over nature, with both purposeful and inadvertent effects on the biosphere. For the Anthropocene discourse our purposeful effects must be rationalized and sustainably managed, our inadvertent, negative effects need to be technically mitigated—but the historical legacy of human dominion is not up for scrutiny, let alone abolition.[4]

The commitment to history's colonizing march appears in the guise of deferring to its major trends. The reification of the trends into the independent variables of the situation—into the variables that are pragmatically not open to change or reversal—is conveyed as an acquiescence to their unstoppable momentum. Paul Ehrlich and John Holdren's famous formula that human Impact ("I") equals Population times Affluence times Technological development ("PAT") encapsulates some of the paramount social trends which appear to have so much momentum as to be virtually impervious to change. The recalcitrant trends are also allowed to slip through the net of critique, accepted as givens, and consequently projected as constitutive of future reality.

In brief, here is what we know: population, affluence, and technology are going to keep expanding—the first until it stabilizes of its own accord, the second until "all ships are raised," and the third forevermore—because history's trajectory is at the helm. And while history might just see the human enterprise prevail after overcoming or containing its self-imperiling effects, the course toward world domination should not (or cannot) be stopped: history will keep moving in that direction, with the human enterprise eventually journeying into outer space, mining the Moon and other planets, preempting ice ages and hothouses, deflecting asteroid collisions, and achieving other impossible-to-foresee technological feats.

> Looking deeply into the evolution of the Anthropocene, future generations of *H. sapiens* will likely do all they can to prevent a new ice age by adding powerful artificial greenhouse gases into the atmosphere. Similarly any drops in CO_2 levels to low concentrations, causing strong reductions in photosynthesis and agricultural productivity, might be combated by artificial releases of CO_2, maybe from earlier CO_2 sequestration. And likewise, far into the future, *H. sapiens* will deflect meteorites and asteroids before they could hit the Earth.[5]

The Anthropocene discourse delivers a Promethean self-portrait: a genius if unruly species, distinguishing itself from the background of merely-living life, rising so as to earn itself a separate name (anthropos meaning "man," and always implying "not-animal"), and whose unstoppable and in many ways glorious history (created in good measure through PAT) has yielded an "I" on a par with Nature's own tremendous forces. That history—a mere few thousand years—has now streamed itself into geological time, projecting itself (or at least "the golden spike" of its various stratigraphic markers[6]) thousands or even millions of years out. So

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[4] "An exciting but also difficult, and daunting task lies ahead of the global research and engineering community to guide mankind toward global, sustainable, environmental management," Crutzen and Stoermer (2000): 18.

[5] Will Steffen *et al.*, "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 620.

[6] Boundaries in the strata marking transitions from one geological period to another are referred to as golden spikes. In the case of transitioning into the Anthropocene, a glut of such markers are offered—

unprecedented a phenomenon, it is argued, calls for christening a new geological epoch—for which the banality of "the age of Man" is proposed as self-evidently apt.

Descriptions of humanity as "rivaling the great forces of Nature," "elemental," "a geological and morphological force," "a force of nature reshaping the planet on a geological scale," and the like, are standard in the Anthropocene literature and its popular spinoffs. The veracity of this framing of humanity's impact renders it incontestable, thereby *also* enabling its awed subtext regarding human specialness to slip in and, all too predictably, carry the day.

In the Anthropocene discourse, we witness history's projected drive to keep moving forward as history's conquest not only of geographical space but now of geological time as well. This conquest is portrayed in encompassing terms, often failing to mention or nod toward fundamental biological and geological processes that humans have neither domesticated nor control.[7] A presentiment of triumph tends to permeate the literature, despite the fact that Anthropocene exponents have understandable misgivings—about too disruptive a climate, too much man-made nitrogen, or too little biodiversity. "We are so adept at using energy and manipulating the environment," according to geologist Jan Zalasiewicz, "that we are now a defining force in the geological process on the surface of the Earth."[8] "The Anthropocene," the same author and colleagues highlight elsewhere, "is a remarkable episode in the history of our planet."[9] Cold and broken though it be, it's still a Hallelujah. The defining force of this remarkable episode—the human enterprise—must contain certain aspects of its "I," but, in the face of all paradox, PAT will continue to grow, and the momentum of its product will sustain history's forward thrust. Extrapolating from the past, but not without sounding an occasional note of uncertainty, Anthropocene supporters expect (or hope) that this forward movement will

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from mass extinction and human and livestock biomass, to climate change and the nitrogen cycle, from man-made chemicals and radioactive materials, to roads and certain cities, which according to its supporters warrant the designation of the proposed geological epoch. See Gaia Vince, "An Epoch Debate," *Science* 334, 7 October (2011): 32-37; Nicola Jones, "Human Influence Comes of Age," *Nature* 473, 12 May (2011): 133; Jan Zalasiewicz *et al*., "The New World of the Anthropocene," *Environmental Science & Technology* 44, no. 7 (2010): 2228-2231.

[7] Ecological psychologist David Kidner argues this point as follows: "Even a rudimentary ecological awareness makes it clear that nature emerges through the interaction between *many* forms of life; and absolute control by any single species does not signal a unique form of construction, but rather the death of the ecosystem. Thus the notion that humans have "constructed" the wilderness [for example] stems from a delusory anthropocentric arrogance that greatly overestimates human contributions while downplaying those of other lifeforms almost to the point of nonexistence" (forthcoming 2014).

[8] Quoted in James Owen, "New Earth Epoch has Begun, Scientists Say," *National Geographic News* 6 April (2010). But also compare Tim Lenton: "In a feat unprecedented for a single animal species, humanity's total energy use has now exceeded that of the entire ancient biosphere before oxygenic photosynthesis, reaching about a tenth of the energy processed by today's biosphere." (Tim Lenton, "Engines of Life," *Nature* 452, 7188 (2008): 691-692; or *The New York Times*: "We are the only species to have defined a geological period by our activity—something usually performed by major glaciations, mass extinction and the colossal impact of objects from outer space" (Editorial: "The Anthropocene," 27 February (2011).

[9] Zalasiewicz *et al*., "New World," 2231.

keep materializing variants of progress such as green energy, economic development for all, a gardened planet, or the blossoming of a global noosphere.

How true the cliché that history is written by the victors, and how much truer for the history of the planet's conquest against which no nonhuman can direct a flood of grievances that might strike a humbling note into the human soul. Adverse impacts must be contained insofar as they threaten material damage to, or the survival of, the human enterprise, but the "I" is also becoming *linguistically* contained so that its nonstop chiseling and oft brutal onslaughts on nature become configured in more palatable (or upbeat[10]) representations. The Anthropocene discourse veers away from environmentalism's dark idiom of destruction, depredation, rape, loss, devastation, deterioration, and so forth of the natural world into the tame vocabulary that humans are changing, shaping, transforming, or altering the biosphere, and, in the process, creating novel ecosystems and anthropogenic biomes. Such locutions tend to be the dominant conceptual vehicles for depicting our impact.[11]

This sort of wording presents itself as a more neutral vocabulary than one which speaks forcefully or wrathfully on behalf of the nonhuman realm. We are not destroying the biosphere—we are changing it: the former so emotional and "biased"; the latter so much more dispassionate and *civilized*. Beyond such appearances, however, the vocabulary of neutrality is a surreptitious purveyor (inadvertent or not) of the human supremacy complex,[12] echoing as it does the widespread belief that there exist no perspectives (other than human opinion) from which anthropogenic changes to the biosphere might actually be experienced as devastation. The vocabulary that we are "changing the world"—so matter-of-factly portraying itself as impartial and thereby erasing its own normative tracks even as it speaks—secures its ontological ground by silencing the displaced, killed, and enslaved whose homelands have been assimilated and whose lives have, indeed, been changed forever; erased, even.

And here also lies the Anthropocene's existential and political alliance with history and its will to secure human dominion: history has itself unfolded by silencing nonhuman others, who do not (as has been repeatedly established in the Western canon[13]) speak, possess

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[10] On the Anthropocene and "eco-optimism" see Margaret Wente, "Can Enviro-optimists Save the Movement from itself?" *Globe and Mail,* 20 April (2013); Emma Marris *et al*., "Hope in the Age of Man," *New York Times*, Opinion Pages, 7 December (2011). For an example of lighthearted-yet-serious exploration of "humans qua geological force," visit the Stanford University initiative, "Generation Anthropocene," http://www.stanford.edu/group/anthropocene/cgi-bin/wordpress/

[11] For example, according to Peter Kareiva and his colleagues, "all around the world, a mix of climate change and nonnative species has created a *wealth of novel ecosystems* catalyzed by human activities." Peter Kareiva *et al*., "Conservation in the Anthropocene: Beyond Solitude and Fragility," *Breakthrough Institute* Fall (2011): 35, (emphasis added). See also the language of Erle Ellis, "Anthropogenic Transformation of the Terrestrial Biosphere," *Philosophical Transactions of the Royal Society A* 369 (2011): 2010-2035.

[12] I regard this complex as composed of three mutually reinforcing and widely shared beliefs: the Earth is a collection of resources and services; the planet belongs to people; and humans are different from, and superior to, all other life forms.

[13] For analyses, see for example Christopher Manes, "Nature and Silence," *Environmental Ethics* 14, Winter (1992): 339-350; Gary Steiner, *Anthropocentrism and its Discontents: The Moral Status of Animals in the History of Western Philosophy* (Pittsburgh: The University of Pittsburgh Press, 2005);

meanings, experience perspectives, or have a vested interest in their own destinies. These others have been de facto silenced because if they once spoke to us in other registers—primitive, symbolic, sacred, totemic, sensual, or poetic—they have receded so much they no longer convey such numinous turns of speech, and are certainly unable by now to rival the digital sirens of the dominant culture. The centuries-old global downshifting of the ecological baseline of the historically sponsored, cumulative loss of Life[14] is a graveyard of more than extinct life forms and the effervescence of the wild. But such gossamer intimations lie almost utterly forgotten, with even the memory of their memory swiftly disappearing. So also the Earth's forgetting projects itself into humanity's future, where the forgetting itself will be forgotten for as long as the Earth can be disciplined into remaining a workable and safe human stage. Or so apparently it is hoped, regarding both the forgetting and the disciplining.

Not only is history told from the perspective of the victors, it often also conceals chapters that would mar its narration as a forward march. Similarly for humanity's future, the Anthropocene's projection of a sustainable human empire steers clear of envisioning the bleak consequences of the further materialization of its present trends. What is offered instead are the technological and managerial tasks ahead, realizable (it is hoped) by virtue of *Homo sapiens'* distinguished brain-to-body ratio and related prowess. In a 2011 special issue on the Anthropocene, *The Economist* (a newspaper sweet on the Anthropocene long before chemist Paul Crutzen introduced the term) highlights that what we need in the Age of Man is a "smart planet." As human numbers and wealth continue to swell, people should create "zero-carbon energy systems," engineer crops, trees, fish, and other life forms, make large-scale desalinization feasible, recycle scrupulously especially metals "vital to industrial life," tweak the Earth's thermostat to safe settings, regionally manipulate micro-climates, and so forth, all toward realizing the breathtaking vision of a world of "10 billion reasonably rich people."

When history's imperative to endure speaks, the "imagination atrophies."[15] There is the small thing of refraining from imagining a world of 10 billion reasonably rich people (assuming for argument's sake that such is possible)—a refraining complied with in the Anthropocene discourse more broadly. How many (more) roads and vehicles, how much electrification, how many chemicals and plastics at large, how much construction and manufacturing, how much garbage dumped, incinerated, or squeezed into how many landfills, how many airplanes and ships, how much global trade[16] and travel, how much mining, logging, damming, fishing, and

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Eileen Crist, "Ecocide and the Extinction of Animal Minds," in *Ignoring Nature No More: The Case for Compassionate Conservation,* ed. Marc Bekoff (Chicago: University of Chicago Press, 2013), 45-61.

[14] I use "Life" (capital L) as shorthand for the interdependent arising of biological diversity, ecological complexity, evolutionary potential, and variety of minds that occurs in terrestrial and marine wildernesses. By "wilderness" I do not refer to the spurious sense of untouched, pristine spaces, but to large-scale natural areas off-limits to excessive interference by civilized people, areas in which diversity, complexity, speciation, and the wild and free lives of nonhumans may not only exist but *flourish*, and where humans—far from being in charge—can still end up being some other being's lunch.

[15] Max Horkheimer and Theodor Adorno, *Dialectic of Enlightenment* (Continuum, 1972 [1944]):35.

[16] The link between trade and biological decline has been documented for many specific cases (such a Brazilian and Indonesian rainforests), but has recently also been globally estimated. According to the research of Manfred Lenzen and his colleagues, "developing countries find themselves degrading

aquaculture, how much plowing under of the tropics (with the temperate zone already dominated by agriculture), how many Concentrated Animal Feeding Operations (aka factory farms)—in brief, how much of little else but a planet and Earthlings bent into submission to serve the human enterprise?

Ongoing economic development and overproduction, the spread of industrial infrastructures, the contagion of industrial food production and consumption, and the dissemination of consumer material and ideational culture are proliferating "neo-Europes"[17] everywhere. The existential endpoint of this biological and cultural homogenization is captured by the Invisible Committee's description of the European landscape:

> We've heard enough about the "city" and the "country," and particularly about the supposed ancient opposition between the two. From up close, or from afar, what surrounds us looks nothing like that: it is one single urban cloth, without form or order, a bleak zone, endless and undefined, a global continuum of museum-like hypercenters and natural parks, of enormous suburban housing developments and massive agricultural projects, industrial zones and subdivisions, country inns and trendy bars: the metropolis … All territory is subsumed by the metropolis. Everything occupies the same space, if not geographically then through the intermeshing of its networks.[18]

This passage describes territory from which wilderness has been thoroughly expunged. The Invisible Committee delivers a snapshot of the domestication awaiting the Earth in the Anthropocene, even as many of the latter's "optimistic" exponents prefer to describe the future's geography as akin to a garden.[19]

The "human enterprise"[20] is what Anthropocene exponents are bent on saving from its self-generated, unwanted side-effects:

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habitat and threatening biodiversity for the sake of producing exports. Among the net exporters a total of 35% of domestically recorded species threats are linked to production for export. In Madagascar, Papua New Guinea, Sri Lanka and Honduras, this proportion is approximately 50–60%" ("International Trade Drives Biodiversity Threats in the Developing World." *Nature* 486 (2012): 109). Add to this current assessment of trade's enormous impact on biodiversity that *more* trade routes are rapidly opening around the world and that existing ones are expanding. For example, in the port of Los Angeles/Long Beach alone container traffic is expected to double by 2030, while in the next few years, Africa could be China's biggest trade partner (*The Economist,* "Global Trade: View from the Bridge," 19 January (2013). The frenzy of moving more and more stuff around the world—fueled by growing human numbers and increasing affluence within a capitalist profit-driven system—is at the core of civilization's superficial definition of "prosperity," and a death knell for the more-than-human world.

[17] See Richard Manning, *Against the Grain: How Agriculture Hijacked Civilization* (NY: North Point Press, 2005). The phrase might also be "Neo North Americas," except that the Old World remains the occidental paragon of the erasure of the wild.

[18] The Invisible Committee, *The Coming Insurrection*, (France: Semiotext(e), 2009), 52.

[19] Kareiva *et al*., "Conservation in the Anthropocene," (2011); Michael Shellenberger and Ted Nordhaus, eds., *Love Your Monsters: Postenvironmentalism and the Anthropocene* (ebook, 2011); Emma Marris et al., "Hope".

[20] The term "human enterprise" is used in publications on the Anthropocene to characterize the trajectory of human development from the hunter-gatherer phase through the industrial revolution, to the post world war two period of the "Great Acceleration" into the present time. Sometimes "human

> One of the key developments in moving from problem definition to solution formulation is the concept of the Anthropocene … which cuts through a mass of complexity and detail to place the evolution of the human enterprise in the context of a much longer Earth history. This analysis sharpens the focus on an overarching long term goal for humanity—*keeping the Earth's environment in a state conducive for further human development*.[21]

Keeping the human enterprise viable is never about rejecting history's trajectory of planetary conquest, but about sustaining that trajectory with the caveat of some urgently needed corrections: most especially, the management of certain biophysical boundaries too risky to breach, so as to stabilize "a safe operating space" where humanity can continue to develop and maneuver.[22] The implicit loyalty to history's human-imperialist course is backed by an enthrallment with narratives of human ascent[23] and by the compulsion to perpetuate Earth's reduction into a resource-base.[24] "But still," as philosopher Hans Jonas entreated decades ago, "a silent plea for sparing its integrity seems to issue from the threatened plenitude of the living

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enterprise" is used multiple times in a single publication (for example, at least 14 times in Steffen et al. 2011a.). To my knowledge "the human enterprise" is never defined, allowing for the cultural meaning (encouraged also by its hint of Star Trek) of history as unfolding progress to be readable in the term. In this paper, I rhetorically tap into the expression "the human enterprise," not to target Anthropocene exponent Will Steffen and his coauthors (who seem especially partial to it), but to flag the anthropocentric, progress-laden preoccupations and narratives of the Anthropocene discourse that the expression captures.

[21] Steffen et al., "Global Change," 741, (emphasis added).

[22] Johan Rockström et al., "A Safe Operating Space for Humanity," *Nature* 461, no. 24, September (2009): 472-475; Johan Rockström *et al*., "Planetary Boundaries: Exploring the Safe Operating Space for Humanity," *Ecology and Society* 14, no. 2 (2009): 32; Will Steffen, "The Anthropocene," TedxCanberra.org, 14 November 2010; Mark Lynas, *The God Species: How the Planet Can Survive the Age of Humans* (London: Fourth Estate, 2011).

[23] For example, after sketching the emergence of hominid tool-making, rudimentary weapons, control of fire, and a subsequent shift to an omnivorous diet, Will Steffen and his colleagues inform that the human brain size grew three-fold, giving "humans the largest brain-to-body ratio of any animal on the Earth," which in turn enabled the development of language, writing, accumulation of knowledge, and social learning. "This has ultimately led to a massive—and rapidly increasing—store of knowledge upon which humanity has eventually developed complex civilizations and continues to increase its power to manipulate the environment. No other species now on Earth or in Earth history comes anywhere near this capability" (Steffen *et al*., "The Anthropocene: Conceptual and Historical," 846). For another example of the human ascension narrative, see Erle Ellis, "A Planet of No Return: Human Resilience on an Artificial Earth," *Breakthrough Institute*, Winter 2012, breakthrough.org/index.php/journal/past-issues-2/the-planet-of-no-return.

[24] On the worldview of "resourcism," see Paul Shepard, *Man in the Landscape: A Historic View of the Esthetics of Nature* (Athens, Georgia: University of Georgia Press, 2002/1967); Dave Foreman, "The Arrogance of Resourcism," *Around the Campfire* Issue 5, 1 March (2007) and Eileen Crist "Abundant Earth and the Human Population Question," in *Life on the Brink: Environmentalists Confront Overpopulation,* ed. Philip Cafaro and Eileen Crist (Athens, Georgia: University of Georgia Press, 2012).

world."[25] The threatened plenitude of Life asks that we view timeworn stories of human ascent with the deep suspicion they deserve, see through the self-serving ontology of the world recoded as "resources," "natural capital," and "ecological services," and question what it is we are salvaging in desiring to sustain the human enterprise. For there is no "human enterprise" worth defending on a planet leveled and revamped to serve the human enterprise.

Mastery and the forfeiting of human freedom

The sixth extinction is a casualty of history, the grand finale of the mowing down of biological diversity over the course of many centuries and accelerated in the last two. As a historical trend with a lot of momentum, the Anthropocene literature emphasizes the facticity of the sixth extinction. It does so in two distinct but connected ways: it sees anthropogenic mass extinction through to its potential completion; and it deploys mass extinction as a keystone stratigraphic marker giving a stamp of approval to its proposed nomenclature. "The current human-driven wave of extinctions," we are informed, "*looks set* to become the Earth's sixth extinction event."[26] Will Steffen and his colleagues also note as fact that "the world is likely entering its sixth mass extinction event and the first caused by a biological species."[27] Mass extinctions qualify as powerful indicators of geological transitions, and thus the sixth is a sound criterion for a new epoch (or even era) demarcation. According to Steffen, the strongest evidence that we have left the Holocene is "the state of biodiversity," since "many periods of Earth history are defined by abrupt changes in the biological past."[28] Indeed, Zalasiewicz *et al*. maintain, "a combination of extinctions, global migrations … and the widespread replacement of natural vegetation with agricultural monocultures is producing a distinctive biostratigraphic signal."[29] The condition of biodiversity calls for painstaking scientific evaluation: "Care will be needed to say how significant is the current, ongoing extinction event by comparison with those that have refashioned life in the past—and therefore how significant is the Anthropocene, biologically."[30]

Describing human-driven extinction with detachment (and often in passing), and certainly avoiding by a wide berth a Munchian scream for its prevention, sidesteps a matter of unparalleled, even cosmological significance for a "world of facts,"[31] while also marshalling those facts as favoring the championed geological designator. Detached reporting on the sixth extinction amounts to absence of clarity about its earth-shattering meaning and avoidance of voicing the imperative of its preemption. This begs some questions. Will the human enterprise's legacy to the planet, and all generations to come, be to obliterate a large fraction of

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[25] Hans Jonas, "Technology and Responsibility: Reflections on the New Task of Ethics," in *Philosophical Essays* (New Jersey: Prentice Hall, 1974), 126.

[26] Zalasiewicz *et al*., "New World," 2229, (emphasis added).

[27] Steffen *et al*., "The Anthropocene: Conceptual and Historical Perspectives," *Philosophical Transactions of the Royal Society A* 369 (2011): 850.

[28] Steffen, "The Anthropocene."

[29] Zalasiewicz *et al*., "Are we now living in the Anthropocene?" *GSA Today* February (2008): 6.

[30] Zalasiewicz *et al*., "Hope," 2230.

[31] This move of layering so many coats of "the factual" as to smother the call of "the normative" was pointed out by critical theorists as a characteristic of the Enlightenment worldview: "The new ideology has as its objects the world as such. It makes use of the worship of facts by no more than elevating a disagreeable existence into the world of facts in representing it meticulously. This transference makes existence itself a substitute for meaning and right" (Horkheimer and Adorno, *Dialectic*, 148).

our nonhuman cohort, while at the same time constricting and enslaving another sizable portion of what is left? Might the refusal to flood light on this legacy-in-the-making be judged by future people—as it is judged by a minority today—as a historical bequest of autism[32] to the human collective? And in a world where the idea of freedom enjoys superlative status, why are we not pursuing larger possibilities of freedom for people and nonhumans alike, beyond those of liberal politics, trade agreements, technological innovations, and consumer choices?

What remains unstated in the trend reifications that characterize the Anthropocene discourse (projections of rising human numbers,[33] continued economic development,[34] expanding technological projects and incursions, and a deepening biodiversity crisis) is the abdication of freedom that reifying the trends affirms: the freedom of humanity to choose a different way of inhabiting Earth is tacitly assumed absent. This very assumption, however, does nothing but further steel the absence of freedom that it implicitly holds given. The inability to change historical course remains a tacit adhered-to claim within the discourse of the Anthropocene. And not in a way that is altogether innocent of its own framing preferences: were humanity's powerlessness to shift history's direction openly appreciated, it would collide dissonantly with the breathless presentation of the "I" as, on the one hand, "an elemental force" (the human on a par with Nature's colossal powers) and, on the other, the upshot of the uniqueness of *Homo sapiens* (the "God species"[35] with its own distinct powers). Admitting that we are locked into a course beyond humanity's willpower to shift would render the "I" of the human enterprise as something less glamorous than a show of power; as more likely due to blundering into the condition of species arrogance and existential solipsism that holds humanity in its hypnotic sway. Instead of such seemingly uncontroversial empirical assessments as "we are so adept at using energy and manipulating the environment that we are now a defining force in the geological process on the surface of the Earth," factoring in a candid admission of our powerlessness to create (or even imagine) another way of life might

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[32] Writes Thomas Berry: "Our primordial spontaneities, which give us a delight in existence and enable us to interact creatively with natural phenomena, are being stifled. Somehow we have become autistic. We don't hear the voices. We are not entranced with the universe, with the natural world. We are entranced instead with domination over the natural world, with bringing about violent transformation." Quoted in Derrick Jensen, *Listening to the Land: Conversations about Nature, Culture, and Eros* (Vermont: Chelsea Green, 2002), 36.

[33] Most publications in the Anthropocene genre offer the rote prediction that human population will increase by at least two billion by mid to end century; they report this as though it were a natural event beyond judgment or human ability to control. For arguments to stabilize and reduce the global population, and why it is achievable, see Philip Cafaro and Eileen Crist eds., *Life on the Brink: Environmentalists Confront Overpopulation* (Georgia: University of Georgia Press, 2012); Dave Foreman, *Man Swarm and the Killing of Wildlife* (USA: Raven's Eye Press, 2011).

[34] The Anthropocene literature often embraces Western-style economic development as inexorable and desirable. For example, Kareiva *et al*. write: "Scientists have coined a name for our era—the Anthropocene—to emphasize that we have entered a new geological era in which humans dominate every flux and cycle of the planet's ecology and geochemistry. Most people worldwide (regardless of culture) welcome opportunities that development provides to improve lives of grinding rural poverty" ("Conservation in the Anthropocene," 35).

[35] Lynas, *The God Species*.

yield "we are so impotent to control our numbers, appetites, and plundering technologies, and so indifferent to our swallowing up the more-than-human world, that we are now a colonizing force in the biosphere stripping it of its biological wealth and potential, as well as of its extraordinary beauty and creative art."

"To become ever more masters of the world," wrote Jonas, "to advance from power to power, even if only collectively and perhaps no longer by choice, can now be seen to be the chief vocation of mankind."[36] When he wrote these words, he more than suspected the grave price of mankind's advancing from power to power: the unraveling of the web of Life entailed by the reconstruction of the biosphere to serve one species. But he also did not miss the profound forfeiting of freedom to cultivate another kind of power—the power to let things be, the power of self-limitation, the power to celebrate the Creation—that is the price of mankind's vocation of mastery.[37] "The almighty we, or Man personified is, alas, an abstraction," Jonas insightfully noted. "*Man* may have become more powerful; *men* very probably the opposite …"[38] The Anthropocene discourse clings to the almighty power of that jaded abstraction "Man" and to the promised land his God-posturing might yet deliver him, namely, a planet managed for the production of resources and governed for the containment of risks. By the same token, however, the power of Anthropos is herding men willy-nilly into the banished condition of being forced to participate in a master identity where there will be no escaping from the existential and ethical consequences of that identity. That our survival as a species may be in jeopardy is a concern shared by all, but is not *who* we are on Earth also of paramount significance? As Jonas cryptically observed: "The image of man is at stake."[39] If in our popular fictions we make archetypal villains those who assimilate others in order to inflate their own enterprise—the Borg—what will men make of themselves when they finally get around to facing Man's assimilating mode of operation?

Deconstructing the Anthropocene

Modes of thinking mesh with how people act and with the ways of life they embrace. Modes of thinking themselves are made possible and structured through *concepts*, among which those Ian Hacking dubbed "elevator concepts" are especially potent.[40] Thus ways of life are, to a large extent, manifestations of concepts—of the ideas they foster and the possibilities of action

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[36] Hans Jonas, "Toward a Philosophy of Technology," reprinted in *Technology and Values: Essential Readings,* ed. Craig Hanks (Oxford: Wiley-Blackwell, 2010 (1979), 17.

[37] Nor did philosopher Martin Heidegger miss that implication: "The rule of Enframing [the way of life and mindset locked into the framework of ordering the world as standing-reserve] threatens man with the possibility that it could be denied to him to enter into a more original revealing and hence to experience the call of a more primal truth … Enframing … threatens to sweep man into ordering as the supposed single way of revealing, and so thrusts man into the danger of the surrender of his free essence" (Martin Heidegger, Martin."The Question Concerning Technology," in *The Question Concerning Technology and Other Essays* (USA: Harper, 1977), 28, 32.

[38] Jonas, "Technology" 22, (emphasis original).

[39] Ibid., 24.

[40] According to Ian Hacking, elevator words are "used to say something about the world, or about what we say or think about the world … [that] are at a higher level" (Ian Hacking, *The Social Construction of What?* (Massachusetts: Harvard University Press, 2000), 22-23. The Anthropocene qualifies as an "elevator concept."

they afford, delimit, and rule out. We need not go too far afield speculating, nor wait to see what the future holds, to ascertain what way of life "the Anthropocene" steers humanity toward: it is exhibited perspicuously in today's literature of the Anthropocene and its popular extensions, which, in alliance, constitute a discourse in the strong sense of organizing the perception of a world picture (past, present, and future) through a set of ideas and prescriptions. The high profile of this discourse is beholden to the authoritative cadre of experts zealously championing the nomenclature, coupled with the infectiousness of the term's narcissistic overtones, reinforced by a fetishizing of factuality that blindsides normative exploration, all bundled together in the familiar feel of history's unstoppable momentum.

What does the discourse of the Anthropocene communicate? Nothing about it—much less the name—offers an alternative to the civilizational revamping of Earth as a base of human operations and functional stage for history's uninterrupted performance. The discourse subjects us to the time-honored narrative of human ascent into a distinguished species; a naturalized, subtly glamorized rendition of the "I" as on a par with stupendous forces of Nature; a homogenized protagonist named "the human enterprise" undefended for either its singularity (are all humans involved in one enterprise?) or its insularity (are nonhumans excluded from the enterprise?); a reification of demographic and economic trends as inescapable, leaving the historically constructed identity of *Homo sapiens* as planetary ruler undisturbed and giving permission to humanity's expansionist proclivities to continue—under the auspices of just-the-facts—as the independent variables of the situation; a sidestepping of confronting Life's unraveling, representing it instead as a worthy criterion for a new name; and a predilection for managerial and technological solutions, including a partiality for geoengineering,[41] which, if worsening climate scenarios continue to materialize, will likely be promoted as necessary to save civilization. Not to put too fine a point on it, the Anthropocene discourse delivers a familiar anthropocentric credo, with requisite judicious warnings[42] thrown into the mix and meekly activated caveats about needed research to precede mega-technological experimentations.

A cavalcade of facts is provided in order to display how human impact is, beyond dispute, leaving a legible mark on the Earth's biostratigraphy, chemostratigraphy, and lithostratigraphy. Through the facts thus meticulously rendered, the causal agency of human domination is spectacularly exhibited, and, at the same time, cognitively muted by twisting domination—by means of the relentless overlay of data—"into the pure truth."[43]

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[41] See, for example, Paul Crutzen, "Albedo Enhancement of Stratospheric Sulfur Injections: A Contribution to Resolve a Policy Dilemma?" *Climate Change* 77 (2006): 211-219. Discussion of geoengineering is standard fare in the Anthropocene discourse. In my view, this discourse (in its conjoined scientific, environmentalist, and journalistic venues) has become the chief force of normalizing the expectation of such mega-technological experimentation in (and/or with) the biosphere.

[42] "The Anthropocene will be a warning to the world," quips Crutzen (quoted in Elizabeth Kolbert, "Enter The Anthropocene—Age of Man," *The National Geographic* March (2011) http://ngm.nationalgeographic.com/2011/03/age-of-man/kolbert-text/1

Why (and how) would a term *with no content* other than the brazen face of "anthropos" stamped over the face of the Earth, be a warning to the world?

[43] Horkheimer and Adorno, *Dialectic*, 9.

The discourse of the Anthropocene is arguably an ideational preview of how this concept will materialize into planetary inhabitation by the collective. As a cohesive discourse, it blocks alternative forms of human life on Earth from vying for attention. By upholding history's forward thrust, it also submits to its totalizing (and, in that sense, spurious) ideology of delivering "continuous improvement."[44] By affirming the centrality of man—as both causal force and subject of concern—the Anthropocene shrinks the discursive space for challenging the domination of the biosphere, offering instead a techno-scientific pitch for its rationalization and a pragmatic plea for resigning ourselves to its actuality. The very concept of the Anthropocene crystallizes human dominion,[45] corralling the already-pliable-in-that-direction human mind into viewing our master identity as manifestly destined, quasi-natural, and sort of awesome. The Anthropocene accepts the humanization of Earth as reality, even though this is still contestable, partially reversible, and worthy of resistance and of inspiring a different vision. Yet the Anthropocene discourse perpetuates the concealment that the human takeover is (by now) an unexamined *choice*, one which human beings have it within both our power and our nature to rescind if only we focused our creative, critical gaze upon it.

As sociologist Urlich Beck noted two decades ago, humanity has become threatened by the side-effects of its technological and expansionist excesses (1992). The Anthropocene discourse is deeply concerned about this "risk civilization." But cloistered as it remains within a humanistic mindset, it appears unwilling to acknowledge (the significance of the fact) that nonhuman existence and freedom—and Earth's very art of Life-making—are menaced by the human enterprise itself, whose potential to emerge relatively unscathed from its civilizational game of Russian roulette will only leave humanity stranded on a planet once rich in Life turned into a satellite of resources. As poet and deep ecologist Gary Snyder wrote many years ago in *Turtle Island*, "if the human race… were to survive at the expense of many plant and animal species, *it would be no victory*."[46]

Philosopher Edmund Burke observed that the power of words is to "have an opportunity of making a deep impression and taking root in the mind."[47] There are compelling reasons to blockade the word Anthropocene from such an opportunity. As a Janus-faced

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[44] Leo Marx, "The Domination of Nature and the Redefinition of Progress," in *Progress: Fact or Illusion?* ed. Leo Marx and Bruce Mazlish (Michigan: The University of Michigan Press, 1996), 210. For an implicit and explicit telling of history as a record of continuous improvement, see Ellis, "Anthropogenic Transformation" and "A Planet of No Return: Human Resilience on an Artificial Earth," *Breakthrough Institute*, Winter (2012), http://thebreakthrough.org/index.php/journal/past-issues/issue-2/the-planet-of-no-return/

[45] A related point is made by conservation biologist Tim Caro and his colleagues regarding the consequences for conservation of adopting the term Anthropocene: "We fear that the concept of pervasive human-caused change may cultivate hopelessness in those dedicated to conservation and may even be an impetus for accelerated changes in land use motivated by profit" ("Conservation," 185). In a different and more caustic vein, author Derrick Jensen writes the following about the proposed name: "Of course members of this culture, who have named themselves with no shred of irony or humility *Homo sapiens*, would, as they murder the planet, declare this the age of man." Derrick Jensen, "Age of the Sociopath," *Earth Island Journal* Spring (2013): 41.

[46] Gary Snyder, *Turtle Island* (USA: A New Directions Book, 1974/1969), 103, (emphasis added).

[47] Edmund Burke, *A Philosophical Inquiry into the Origin of our Ideas of the Sublime and Beautiful* (Indiana: University of Notre Dame Press, 1958), 173.

referent it points to Man, on the one hand, and to the spatiotemporal reality of Earth, on the other, presenting as a straightforward empirical match what has been, to a far greater extent, the upshot of a plundering forcing. The occupation of the biosphere is *constitutive* of the conceptual flavor and prescriptive content of the Anthropocene—which, turned into a way of life, will enact that occupation for as long as it can be made sustainable. Thus if the "Anthropocene" were seen as our roadmap forward, it would draw the human collective—docilely or kicking and screaming—to be participants in a project of rationalized domination perpetuated into, and *as*, the future. Such a prospect is a call to arms against the still-ruling idea of Man and his newfound audacity to engrave his name onto a slice of eternity.

What Henry Thoreau might have thought of "the Anthropocene" is likely consonant with his perspective on the Flint family of Concord naming the pond by their farm after themselves. "*Flints' Pond!*" he exclaimed:

> Such is the poverty of our nomenclature. What right had the unclean and stupid farmer, whose farm abutted on this sky water, whose shores he has ruthlessly laid bare, to give his name to it? Some skin-flint, who loved better the reflecting surface of a dollar, or a bright cent, in which he could see his own brazen face; who regarded even the wild ducks which settled in it as trespassers; his fingers grown into crooked and horny talons from the long habit of grasping harpy-like;—so it [Flints' Pond] is not named for me. I go not there to see him nor hear of him; who never *saw* it, who never bathed in it, who never protected it, who never spoke a good word for it, who never thanked God that he had made it.[48]

The Anthropocene? Such is the poverty of our nomenclature to bow once more before the tedious showcasing of Man. To offer a name which has no added substantive content, no specific empirical or ethical overtones, no higher vision ensconced within it—beyond just Anthropos defining a geological epoch. If a new name were called for, then why not have a conversation or a debate about *what* it should be, instead of being foisted (for a very long time, I might add) with the Age of Man as the "obvious" choice?[49]

Integration or takeover?

Indeed, why not choose a name whose higher calling we must rise to meet? We might, for example, opt for ecotheologian Thomas Berry's proposed "Ecozoic," which embraces Earth's integral living community, and invites human history in concert with natural history into uncharted realms of beauty, diversity, abundance, and freedom. "Evaluating our present situation," Berry wrote, "I submit that we have terminated the Cenozoic Era of the geo-biological systems of the planet. Sixty-five million years of life development are terminated. Extinction is taking place throughout the life systems on a scale unequaled since the terminal phase of the Mesozoic Era." Why is this extinction event not all over the news, and why does the culture's intelligentsia follow suit by understating what the mainstream passes over in

[48] Thoreau, H. *Walden—or, Life in the Woods*. New York: First Vintage Books, 1991: 158-159, emphases original.

[49] The name Anthropocene was debated in the Spring 2013 issue of *Earth Island Journal*, including contributions from Raj Patel, Gus Speth, Kathleen Dean Moore, and Derrick Jensen among others. Moore and Jensen offer insightful critiques of this nomenclature (see bibliography).

silence? As Berry argued in all his work, this event might shake humanity out of our disconnection, inaugurating "a period when humans would dwell upon the Earth in a mutually enhancing manner. This new mode of being of the planet," he continued, "I describe as the Ecozoic Era … The Ecozoic can be brought into being only by the integral life community itself."[50] What it would demand of humanity as a member of that integral life Berry called the Great Work (1999).

Integration within an organism, an ecosystem, a bioregion, a family, or a community signals a state of being within which gifts of wellness can flow. Being integral, along with the kin quality of possessing integrity, mean working harmoniously together, enhancing and complementing one another, supporting mutual flourishing, respecting distinct identities and appropriate boundaries, and experiencing union-in-diversity.

Through ecological connection, evolutionary change, and organisms' partial shaping of environmental chemistry and morphology, wild nature generates diversity, abundance, complexity, and umwelts (meaning different sensory modalities and thus different forms of awareness). To integrate the human within this original matrix would signal humanity's living in integrity in the biosphere, and reaping such gifts as elude our anthropocentric civilization which appears incapable of conceiving that the wellness of human mind, emotion, body, and surroundings can be built on anything other than "resources."

Living in integration with wild nature is not a veiled invitation for humanity to return to its pre-Neolithic phase;[51] nor does it automatically signal (in my view) an *a priori* ceiling to technological innovation; nor is it intended to conjure a naive view of life as an Edenic kingdom. It is not my aim here to recommend what human integration within the biosphere might specifically look like, but instead to contend about the *prerequisite* for such a way of life to emerge: namely, catching "a sideways glance of a vast nonhuman world that has been denigrated by the concepts, institutions, and practices associated with 'the human'";[52] and also becoming receptive to the view that if the imperative of respecting the natural world's self-integrity and intrinsic value appears unimposing to the human mind, it is because the human mind has been conditioned and enclosed by a species-supremacist civilization. Only from a perspective of profound deference for the living world can an integrated human life be imagined and created. The Anthropocene discourse makes no gesture in the direction of such deference, opting instead to retread the ruts of human self-concern and self-adulation.

The merger between the social and the natural that we are in the midst of completing is not about mutual integration, nor even about a hitherto socially under-appreciated human-nonhuman "composition."[53] This merger is about *takeover*, which has supervened from an alienated praxis on Earth wherein civilized humans have wiped out and reconstructed the more-than-human world for purposes of assimilation—purposes that have been (quite

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[50] Thomas Berry, "The Ecozoic Era," reprinted in *Environment: An Interdisciplinary Anthology* ed. Glenn Adelson *et al*. (New Haven, CT: Yale University Press, 2008), 359, 360.

[51] Though questing in the wilderness is a birthright that some people are called to seek out (see Alan Drengson, "The Wild Way," *The Trumpeter* 20, no. 1 (2004): 46-65. This possibility for those who would choose it is, needless to say, being eclipsed for future people by the destruction of wilderness.

[52] Mathew Calarco, "Identity, Difference, Indistinction," *The New Centennial Review* 11 (2012): 56.

[53] See Bruno Latour, "Love Your Monsters: Why we must care for our technologies as we do our children," In Shellenberger, and Nordhaus, *Love Your Monsters*.

specifically and frankly) unilaterally defined to aggrandize the human enterprise, and most especially its privileged subgroups. There is a yawning chasm between assimilation of the natural *by* the social, on one hand, and integration of the natural *and* the social, on the other—a chasm that the Anthropocene discourse unfailingly blankets in its nebulous descriptions of our present condition of "social-natural coupling."[54]

Takeover (or assimilation) has proceeded by biotic cleansing and impoverishment: using up and poisoning the soil; making beings killable;[55] putting the fear of God into the animals such that they cower or flee in our presence; renaming fish "fisheries," animals "livestock," trees "timber," rivers "freshwater," mountaintops "overburden," and seacoasts "beachfront," so as to legitimize conversion, extermination, and commodification ventures. The impact of assimilation is relentless—as we can see all around us—and it is grounded in the experience of alienation and the attitude of entitlement. Assimilation does not signal the "coupling" of society and nature; rather, it breeds scarcity for both. Of course scarcity for humans and nonhumans will, now and then, always arise; but scarcity's deepening persistence, and the suffering it is auguring for all life, is an artifact of human expansionism at every level. If the Anthropocene's dream to avert scarcity for 10 billion humans (on a gardened smart planet) is somehow realized, scarcity will painfully manifest elsewhere—in homogenized landscapes, in emptied seas, in nonhuman starvations, in extinctions.

For human and biosphere to become integral invites sweeping away the paltry view of the planet as an assortment of "resources" (or "natural capital," "ecological services," "working landscapes," and the like), for a cosmic and truer vision of Earth as a wild planet overflowing in abundance and creativity.

The Anthropocene discourse touts the unavoidable merger of the human-natural, which, according to its reports, calls us to the high road of becoming good managers of the standing reserve. It thus masks an invitation to opt for the low road of rationalizing (and relatedly "greening") humanity's totalitarian regime on Earth. But lifting the banner of human integrity invites the *priority* of our pulling back and scaling down, of welcoming limitations of our numbers, economies, and habitats for the sake of a higher, more inclusive freedom and quality of life. Integration calls for embracing our planetary membership; de-industrializing our relationship with the land, seas, and domestic animals; granting the biosphere unexploited and contiguous large-scale geographies to express its ecological and evolutionary arts; and ensuring our descendants the privilege of witnessing Earth's grandeur. In making ourselves integral, and opening into our deepest gift of safeguarding the breadth of Life, the divine spirit of the human surfaces into the light.

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[54] Reference to the "tight coupling" of the social and the natural systems occurs frequently in the literature. For example, Will Steffen et al. "Anthropocene Global Change," 740 describe "the human enterprise [as] now a fully coupled, interacting component of the Earth system itself." See also Kareiva and Marvier, "Conservation Science," 2012; Kotchen and Young, "Challenges of the Anthropocene," 2007.

[55] Donna Haraway's expression. See *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 80ff.

Eileen Crist is author of *Images of Animals: Anthropomorphism and Animal Mind*, and co-editor of *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in an Age of Crisis* and *Life on the Brink: Environmentalists Confront Overpopulation*. She is professor at Virginia Tech in the Department of Science and Technology in Society and adjunct at the Humane Society University in the Department of Animal Studies. For more information about her work, visit www.eileencrist.com. Email: ecrist@vt.edu.

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