

Age of Man Environmentalism & Respect for an Independent Nature

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Nature no longer runs the Earth. We do. It is our choice what happens from here (Lynas 2011, 8).

Humans neither can nor ought to denature their planet . . . On larger planetary scales it is better to build our cultures in intelligent harmony with the way the world is already built, rather than take control and rebuild this promising planet by ourselves . . . We do not want a de-natured life on a denatured planet (Rolston 2012, 26, 46, 48).

Abstract

The debate over whether we have entered a new geological epoch known as “The Anthropocene” has helped spawn “Age of Man Environmentalism” (AME). According to AME, humans’ planetary scale impact indicates that respect for an independent nature can no longer serve as a guiding value for environmentalism. Traditional environmental goals of nature preservation and restoration are problematically grounded in the illusory ideal of pristine nature. Humans are now fully integrated into nature and have no choice but to become responsible managers of the earth we have created and to govern it according to our ideals.

This essay critically examines AME and defends traditional environmental values of naturalness and respect for nature’s autonomy. AME’s serious exaggeration of the extent of human influence over Earth manifests an anthropocentric narcissism that is blind to the ongoing agency of nature. Rather than becoming gods or parents of a nature that allegedly needs us, human flourishing requires we strengthen our commitment to humility, restraint, and respect for the gifted character of the world. Naturalness is increasingly valuable the rarer it becomes, including the remaining naturalness in highly humanized areas. AME’s insistence on a thoroughly managed future ignores the possibility of rewilding and turning nature loose. Its promotion of non-native species and ill-defined “novel ecosystems” is an attempt to polish the image of human-impacted nature and denigrate the value of preserved wild areas. Taking seriously the massive human impact on earth does not require abandoning traditional environmental values.

Introduction

The human impact on Earth has been so extensive that geologists are considering designating the present as a new geological epoch named after us: “The Anthropocene” (Subramanian 2019). This massive human influence has spawned what I call “Age of Man Environmentalism” (AME). According to AME, the longstanding and global impact of humans on the planet means that respect for an independent nature can no longer serve as a guiding value for environmentalism. A realistic appraisal of humans’ effects on the planet justify the ideal of

humans as responsible managers of a nature that we have for the most part created. AME promotes acceptance of, and admiration for, human-impacted ecosystems, including emerging “novel ecosystems,” while denigrating wilderness ecosystems and native species. The value of nature’s autonomy is either rejected outright or is relegated to peripheral importance in environmental valuation.

This essay is a critical examination of AME and a defense of the idea that the traditional environmental values of naturalness and respect for nature’s autonomy are of ongoing—and even increasing—importance¹. I argue that AME seriously exaggerates the extent of human influence over Earth and manifests an anthropocentric narcissism that is blind to the ongoing agency of nature. AME is so enamored with human activity that it wildly misconstrues our influence as fundamentally changing the character of the planet and our relation to it. But despite our planetary-scale influence, humans remain earthlings, deeply dependent upon independent natural processes that they ought to respect and not try to control.

Human impacts

There is no question that humans are a dominant species affecting nature on global scales. Humans now consume between 30 and 40 percent of net primary production, consume more than half of all surface fresh water, and fix more nitrogen than all other terrestrial sources combined (Vitousek et al. 1997). Humans rival the major geologic forces in our propensity to move soil and rock (Monastersky 1994). Overfishing has devastated sea life (Jackson 2001); our dams control water flow in two thirds of the world’s longest rivers (Lovgren 2019); and human-assisted, nonnative species are replacing native ecosystems with cosmopolitan ones (Newbold 2018). Our contribution to greenhouse gases may raise the planet’s temperature as much as 4.8°C (Hayhoe 2017), affecting climates, and thus ecosystems, globally. Human-caused extinctions are said to be between 100 and 1000 times the background extinction rate (Zalasiewicz et al. 2010, 2229).

Overall estimates of human influence on land surface range from 75% of ice free land showing “evidence of alteration as a result of human residence and land use” (Ellis and Ramankutty 2008, 339) to 83% of total land manifesting such influence (Sanderson et al. 2002).² Some estimate that there now are more “novel ecosystems”—approximately 1/3 of ice free land (Perring and Ellis 2013, 78)—than ecosystems displaying significant historical fidelity (Mascaro et al. 2013, 48). Note that human influences are “affecting the structure and functioning of the Earth System as a whole” (Steffen et al. 2007). Thus “the Earth system now functions in ways

¹ By ‘naturalness’ I mean the degree to which an entity is not influenced by humans. By ‘nature’s autonomy’ I mean nature’s ability to carry on its own activities unimpeded by humans. Nature’s autonomy also comes in degree, but it need not be lessened by some human influence.

² A helpful summary of human land use concludes that 28% of useable land (about 2.5 billion hectares) is relatively natural in the sense of not being actively managed by humans:

The total land surface of Earth is 13 billion hectares, of which 4 billion hectares are in the Arctic or Antarctic, or are desert or tundra. The vast majority of the remaining 9 billion hectares is heavily used by people, with about 5 billion hectares serving as agricultural lands, roughly one-fourth of which is farmed and the rest used for livestock production. Much of the remaining land is forested, with about 1.5 billion hectares being actively managed for tree production globally (Tilman 2012, 114-115).

unpredictable without understanding how human systems function” (Ellis and Haff 2009, 473). It appears likely that we are altering the planet on a scale comparable to the major events that mark past changes in geological epochs, thus supporting the idea we have moved out of the Holocene into the “Anthropocene.”

Interpreting human impacts

What shall we make of this human impact? Traditional environmentalism considers this an assault on the natural world and promotes lessening human influence and more fairly sharing the planet with other species (as well as within our own species). Respect for nature requires preserving the remaining twenty-five percent of relatively natural land surface, protecting the ocean from further incursion, and restoring degraded ecosystems when feasible. In contrast, AME argues that the massive scale of human impact requires that we give up the traditional values of environmentalism. Old-fashioned goals of preservation, restoration, and respect for nature are, for the most part, passé. Naturalness is now either gone or so tenuous that desires to preserve, restore, and value it are sentimental pipe dreams. The virtues of humility and restraint toward the natural world are no longer possible or desirable, and we need to reconcile ourselves to a humanized world and adapt to it. We have been thrust into the role of planetary managers who must engineering nature according to our values and ideals. Rather than bemoan or resist this new ecological world order we should celebrate “the age of man” for it offers us hope for a world in which humans take their responsibilities seriously and are freed from constraints grounded on a misguided desire to preserve a long-gone, pristine nature.

Humans as creating and responsible for Earth

One of AME’s more provocative claims is that humans have “created” the earth—and because of this—are in some way “responsible” for it. It is hard to know how seriously to take such Promethean language. An editorial by AME enthusiasts titled “Hope in the Age of Man” boldly claims: “This is the earth we have created” and hence we should “manage it with love and intelligence” . . . “designing ecosystems” to instantiate “new glories” (Marris et al. 2011). Erle Ellis—perhaps the major champion of the nature-created-by-humans idea—writes:

As we accept responsibility for the anthropogenic biosphere we have created and begin to practice the planetary stewardship we have earned in the Anthropocene, we can only hope that human systems will continue to evolve in their capacity to create and sustain the biosphere we want and need (2011, 1029).

Emma Marris, another AME agitator, argues for a “rambunctious gardening” approach to nature, one that “creates more and more nature as it goes, rather than building walls around the nature we have left” (2011, 3). Philosopher Allen Thompson writes that: “We now know that the fundamental conditions of the biosphere are something that, collectively, we are responsible for. . . . Once the planet was larger than us, but it no longer is” (2009, 96, 97). Ellis concurs: “We used to depend on nature to care for us. Now it's entirely the other way around. . . . Will we be proud of the planet we create in the Anthropocene?” (2011b).

Nature’s ongoing agency

The severity of human impacts on Earth and our responsibilities to make amends should

not be underestimated. Nevertheless, AME's creation and responsibility claims are tremendous—and pernicious—exaggerations. It is critically important to recognize the ongoing efficacy of the non-human forces that pervade the planet and continue to support human (and other) life. Humans are not responsible for the existence of sunlight, gravity, or water; nor for the photosynthetic capacity of plants, the biological process of predation, or the chemical bonds between molecules; nor, more generally, for the diversity of life on the planet or its spectacular geology. Such examples could be extended indefinitely, as a quick perusal of any physics, chemistry, biology, or geology textbook will demonstrate. That we have influenced many of these natural forces does not mean they are properly identified as human forces. While humans may well have a greater causal impact on the planet than any other individual species, this is a far cry from the idea that human causal influence on Earth is greater than the combined causal contributions of the nonhuman forces of the planet: That we are the dominant species, does not show that we are dominating nature.

Why does AME single out human causal factors influencing Earth and then designate them as the cause—or the creator—of these processes? Identifying the cause of some phenomenon is perspectival: We think the failure to put out the campfire caused the forest fire, while Venusians insist the cause was that “the atmosphere of the darned planet is saturated with oxygen” (Putnam 1983, 214). Separating out one contributing factor as the cause and the rest as background conditions depends on one's purposes. One of AME's purposes seems to be to undermine the picture of humans as earthlings subject to natural laws and processes. For AME, nature's agency is simply there as background on a stage of human action. “Human influence is arguably the most important factor affecting life of all kinds in today's world” (Sanderson et al. 2002, 891). But the idea that what humans do is important—and what nature does is not—is a kind of anthropocentric narcissism that begs the question about how we should think about our relationship with Earth. Are we gods or creatures? Parents or children? Gardeners or beholders? AME's answer is clear:

We are poised at an important time in human and Earth history. For the first time, we . . . are changing the way the entire planet functions. This is an amazing opportunity—humanity has now made the leap to an entirely new level of planetary importance. As Stewart Brand said in 1968: “We are as gods and might as well get good at it.” (Ellis 2011b).

Or as Thompson suggests, we humans are like “adoptive parents . . . enabling. . . the flourishing of life on earth” (2009, 97). A former chief scientist of The Nature Conservancy argues that “ours is a world of nature domesticated” (Kareiva et al. 2007, 1866) and that “we create parks that are no less human constructions than Disneyland” (Kareiva et al. 2012). AME's infatuation with human causal influence results in an utterly distorted characterization of Earth and its processes as human artifacts.³

Novel ecosystems

AME's promotion of the “novel ecosystem” concept further develops its theme of

³ There are interesting parallels here between AME's misconception of earth as a human-created artifact and Eric Katz's heavily criticized idea that restored ecosystems are artifacts (Katz 1997).

humans as creators of nature. Novel ecosystems are human “caused” (though not maintained) systems with new combinations of species and altered ecological functions that it would be impossible or impractical to return to their historical states (Hobbs et al. 2006). The degree of alteration of a system before it warrants the novel designation is ill-defined and thus so is the suggestion that novel ecosystems are human-created or widespread. Marris claims that “novel ecosystems are going to be driving most of natural processes on Earth” (2011, 13) and that “novel ecosystems represent the future of our planet, like it or not” (2011, 122). Such claims are either highly pessimistic or they employ a very low standard of alteration for novelty. The nebulous nature of the novel ecosystem notion becomes undeniable when it is applied to the entire earth:

Perhaps . . . simplistic definitions tend to categorize the whole Earth as a novel ecosystem because the whole Earth *is* a novel ecosystem: a creation of anthropogenic change under varying levels of day-to-day-management (Marris et al. 2013, 346).

Rather than providing evidence for the humans as nature’s creator idea, the novel ecosystem concept functions mainly to polish the image of human-impacted ecosystems—a point AME supporters admit:

Proponents of the novel ecosystem concept . . . seek to rebrand lands currently described by ecologists as "degraded" . . . to color our emotional reaction . . . to make us see possibilities were we formerly saw only failure. Thus the concept may be useful as a . . . propaganda tool" (Marris et al. 2013, 346).

Managing Earth

Rather than moral responsibility for destructive behavior, AME regards human responsibility for Earth as something positive, involving a newly acquired power and licence to manage the planet. Ellis thinks our role as “planetary stewards” is something we have “earned.” How have we earned it? Well, because, as Thompson argues, “there is no corner of the globe, no feature of our biosphere, which escapes the influence of human activity” (2009, 97). This, he thinks, gives us an enhanced authority over the planet: “Whether we accept it or not, human beings now shoulder the responsibility of planetary management” (2009, 97). Marris provides a similar rationale: “We are already running the whole Earth, whether we admit it or not. To run it consciously and effectively we must admit that role and even embrace it” (2011, 2). And again we are told: “Today we live in a biosphere governed by human legacy and design. Humans have altered everything, and there is no going back. . . . as we learn to be conscious managers to our rapidly changing planet (Marris et al. 2013, 348).⁴

Many possible arguments lurk in these claims. One is that because there is no virgin nature left, we have to, and have the right to, neigh the responsibility to, manage nature on earth.

⁴ Despite its dangerous hyperbole, Marris’ *Rambunctious Gardens* is an important and thoughtful book—though not without inconsistency. For example, at one point she distances herself somewhat from the thoroughly managed earth idea: “I think we should keep lots of land unmanaged just to see what it does, to keep evolutionary fires burning and to ensure that future generations might still be able to get lost. . . . I hope that much . . . of the rambunctious garden will be unweeded and untidy (2011, 131). Her treatment of native species and wilderness is also ambivalent in this way.

But if someone were to come into your life and poke around in your affairs, that would not give this person the right—much less the responsibility—to manage your affairs. This would be true even if he had “altered everything” in your life.

Another argument is that because we are already managing nature on earth, we must continue to do so and learn to do it well. But it is just not true that we have become planetary managers. Humans’ massive effects on the planet have been—for the most part—unintentional (and chaotic), while a manager intentionally controls what she manages (or at least intends to). Remarks like “How have we developed into such powerful planetary engineers?” (Steffen et al. 2007) ignore this crucial point. It is also a fallacy to argue that because we are already unintentionally having massive planetary-wide effects, we should now intentionally seek to have those effects and become (would-be) planetary engineers. Furthermore, even if we were managing the planet, it would not follow that we have the right to do this or that we should continue to do so. If someone is managing your affairs and has done so for a long time, that does give this person the right to continue to do so.

Perhaps the argument is that we have so seriously disrupted natural processes (e.g., climate) that we have undermined nature’s ability to function on its own without our management. Not only does this assume a controversial view about the fragility of nature, but it also seems obviously mistaken if the functioning refers to nature’s ability to thrive and prosper without humans. Although certain species and ecosystems need humans to rescue them from our assault, nature as a whole and over the long term will function and thrive without us.

Furthermore, I do not think it plausible to argue that there is some new need for humans to become managers of the planet for it to continue to provide the essential services and products that we need. The longstanding practice of managing large chunks of land for agriculture, timber or urban uses is not managing the planet per se. Managing the planet would involve such intentional planetary-scale activities as geoengineering the climate, regulating the weather around the globe, genetic engineering most life forms (perhaps including human beings), and taking control of what happens in relatively natural areas, including the seas. It would involve treating the earth as a giant garden. As Marris puts it when arguing against the preference for native species: “We have to ask ourselves, ‘Do we want this species in this place right now?’ To answer, we have to know what we want; we have to have a vision for the future of every piece of land” (2011, 108). Stopping our assault on the earth is necessary for long-term human flourishing, but this sort of extreme planetary management is not.

Moral reasons against trying to become planetary managers are based on avoiding arrogance and cultivating proper humility. Consider alternative visions of humans’ relation to Earth. Perhaps Leopold’s “plain members and citizens” account does not fit with human’s massive influence on the planet or with the relative moral importance of the human species when compared to other individual species. But we might consider ourselves healers of a wounded earth. We might become appreciators of a magnificent planet who use its gifts carefully, sparingly, and thankfully. Instead, AME’s vision is that we see ourselves as manager of this place. Humans are boss. We are in charge. Rather than develop our human capacities for “gratitude, wonder, respect, and restraint” (Rolston 2012, 46), we should take control and handle the place. Rather than celebrate a given Earth, we need to create the Earth we think best. I believe the long term well-being of humanity is ill served by such a grandiose vision. The given, gifted

character of the natural world is important to human flourishing; managing (or even attempting to manage) the planet would undermine this.

Humans as separate from nature and the value of the natural

The separation of humans and nature that underlies traditional environmentalism's emphasis on the value of the natural is often considered problematic. AME insists that humans must be understood as fully a natural part of nature. Two researchers working on wilderness policy argue that: "It is time to articulate goals and objectives for parks and wilderness that are founded in a perspective that views humans as a part of, rather than apart from, nature" (Aplet and Cole 2010, 26). Science and environmental journalist Andrew Revkin, thinks "taking full ownership of the Anthropocene" means we should accept "our place on the planet, with all of our synthetic trappings, and our faults, as fundamentally natural" (2011).

Humans clearly are a part of nature in important respects. Like other creatures, we evolved from, and continue to be dependent upon, the stable functioning of countless earth processes. Perhaps ignorance of—or willful disregard for—this dependence is a root cause of environmental problems. But it also is true that humans are importantly separate from nature. Humans are not just natural, biological creatures; we are also moral, social, psychological, technical, economic, and political beings. One way in which this makes us different from other creatures is that understanding humans involves the social sciences as much as the natural sciences. Unlike a beaver dam, understanding a human dam involves questions of politics, economics, and technology, as well as moral responsibility. The insistence that humans are just as natural as any other being on the planet is tantamount to insisting that the social sciences should be reduced to the natural sciences.

Demanding that we see humans as just another part of nature has implications. Marris believes in "learning to love exotic species," and she suggests we can get rid of the concept of nonnative species if we "fold humanity back into nature and consider us just another way species move around, along with migration and ocean currents" (2011, 108). Marris also points out that once we see humans as thoroughly a part of nature "the unthinkable, exciting and energizing thought occurs: we can make *more* nature" (2011, 56). But if we can so easily make more nature, then presumably preserving the remaining more natural areas becomes less important (or perhaps superfluous).

Another unfortunate implication of treating humans as fully a part of nature can be seen in the "Ocean Health Index," a well-publicized tool for appraising the state of the oceans. The lead scientist among the dozens of scientists, policymakers and conservationists who developed the tool points out that the index was designed to "embrace the idea that people are part of nature" and thus it defines (in part?) "ocean health by the benefits provided to people" (Halpern, 2012). The result is that when a country is "under-harvesting many fish stocks" (that is, not fishing at maximum sustainable yield), its ocean health score is "penalized." Treating humans as part of nature in this way thus leads to the bizarre conclusion that ocean health can decline when humans take fewer fish from it.

The ability to find value in non-humanized (or relatively more natural) events is also called into question by insisting that humans are fully natural. It is a widely held and well-justified judgment that what is not influenced or controlled by humans (or is less influenced or

controlled by humans) is valuable in virtue of that fact (Hettinger and Throop, 1999). Such value need not be overriding or ever-present. But it is often present and it is frequently critically important. This value is evident when we admire an athlete's "gift" as opposed to the effort she puts into her performance. It is a value that underlies the opposition to genetic enhancement of human beings. As evidence of its power, consider how it militates against the desire to end animal suffering in the wild.⁵ What would happen to your admiration of Old Faithful in Yellowstone Natural Park if you found out that the Park Service controlled its height and timing by adding soap to its underground plumbing? For many, the awe of this spectacular non-human wonder would be drastically reduced. Those who insist that humans are thoroughly natural will need to argue that these positive responses to the naturalness of a phenomenon are a mistake. Marris, for example, suggests that the wonderment aimed at Niagara Falls should not be diminished when we learn that its water flow is manipulated by hydro power operators who "could turn the falls off completely with a flick of a switch" (2011, 169). Separating humans from nature is important to accommodate the idea that human caused or influenced events can have a different valence from nonhuman (or relatively non-humanized) otherwise identical events.

Naturalness: Increasing rare and important

For traditional environmentalism, respect for nature involves regarding naturalness and the autonomy of nature as central environmental values. An important component of AME is an attack on such values. Ellis writes: "In the Anthropocene, the anthropogenic biosphere is permanent.... making the call to avoid human interference with the biosphere irrelevant" (2011, 1027). Thompson claims "My analysis supports that idea that environmentalism in the future . . . will hold a significantly diminished place for valuing the good of the autonomy in nature" (2010, 54). I argue that, rather than becoming an irrelevant goal or a less important value, the massive scale of human impact on Earth makes nature's autonomy more important. While there is a decreasing extent of naturalness on the planet and thus less of it to value, what remains has become all the more precious. Rarity is a value-enhancing property of those things antecedently judged to be good. If naturalness is a value, then, the more it is compromised by human influence and control, the more (not less) important it is to take steps to regain it, as well as protect what remains.

Note that it is not only the remaining, relatively wild nature that increases in value. The naturalness that persists in human-impacted nature is also an increasingly important object of valuation. Unless one ignores a central point maintained by defenders of the natural—that naturalness comes in degrees—and accepts the discredited notion that in order for something to be natural it must be absolutely pristine, things can be natural (i.e., relatively autonomous from humans) and valued as such even when they have been significantly influenced by humans. Take urban parks as an example: Although significantly shaped by humans, they retain much naturalness, and these parks are valued (in large part) for their naturalness by those who enjoy

⁵ Respect for the autonomy of nature strongly counts against Martha Nussbaum's suggestion that predation in nature requires "a gradual supplanting of the natural with the just" (2006, 400). For a discussion about valuing naturalness in the context of concerns about wild animal suffering, see Hettinger 2018.

them. They would, for example, be valued much less if the trees were plastic and the birds genetically engineered. The human person is another example: The fact that humans are thoroughly cultural beings is compatible with there being significantly natural components to us that are valuable and that would be tragically lost if we were to succeed in manipulating and controlling our entire nature.

The pristine wilderness straw man

A repeated theme of AME is that the importance traditional environmentalism places on preserving relatively wild ecosystems and restoring others depends on the fantasy of “an untouched, natural paradise” (Marris et al. 2011). Both long-ago human influences on the planet (e.g., the possible eradication of American megafauna by Pleistocene humans) and recent global impacts (e.g., climate change) undermine the idea of preserving or restoring nature in (or to) a pristine state. The “baseline problem” (how far back in the chain of human causal influence do we aim restoration?) is taken to undermine historical fidelity as a reasonable goal of restoration. The assumption seems to be that the only way to respect nature’s independence from humanity is to return it to the identical condition it was in before humans evolved on the planet—and that is neither possible nor desirable.

But defenders of an environmentalism that places high value on the autonomy of the natural world are well aware of the demise of pristine nature on our planet and the difficulty and often impossibility of replicating pre-human influenced nature. However, there are different gradations of human influence and degrees of naturalness is an important guide for environmental policy. Even if unattainable, virginal nature can remain as an ideal to approximate in some contexts. Additionally, humanization can wash out of human-impacted natural systems and, over time, greater degrees of naturalness can return (Hettinger and Throop 1999, 20-21). Consider the possible eradication of saber-tooth tigers and woolly mammoths by Pleistocene humans in the Americas. While clearly a significant impact on American ecology, the event took place thousands of years ago and nature has had plenty of time to wash out that humanization. Human impacts on an ecosystem diminish over time as nature reasserts itself.

Note that nature need not returned to some original, baseline state or trajectory for naturalness to be enhanced; the lessening of human control and influence on the course of nature is sufficient. Thus, the complaint that the defenders of nature’s autonomy want to set back the clock and preserve museum pieces of earlier pristine nature misses the mark. Even if, as AME insists, it is true that there is “no going back,” that does not mean that the only path forward is a thoroughly managed future increasingly devoid of naturalness.

Rewilding

The idea of turning nature loose to head off onto a trajectory that we do not specify is key to the concept of “rewilding.” Because climate change and other human impacts make historical fidelity a more difficult goal to achieve, the rewilding approach is an increasingly important tool for respecting nature’s autonomy. In his book *Feral* (2013), George Monbiot describes rewilding as a kind of unleashing. Rather than managing and controlling natural processes for fixed human objectives, rewilding does not seek a particular end state. It involves restoring ecological and evolutionary processes (e.g., by reintroducing eradicated plants and animals, controlling human-

introduced exotics, and pulling down fences and dams) and then stepping back and letting nature find its own way. The result is not classic wilderness ecosystems, but self-willed areas, governed not by human managers, but by nature's own processes. These ecosystems will be unpredictable and unlikely to duplicate the past. But the result will be areas of self-willed land and sea, re-populated by missing creatures and the natural processes they embody.

There is a tension here between restoration and letting nature decide. By restoring species aren't humans deciding what nature will be like? If there are no fixed goals for nature, shouldn't one simply adopt a hands-off policy and let nature take off from its current state? But humans have too often left nature in a degraded state. It is true that nature will proceed on its own even in depauperate states (e.g., natural processes still exist in the oxygen-depleted, dead zones of seas). Nevertheless, it is important to restore keystone species that drive ecological processes (like the Yellowstone wolf). Nature without such species is impoverished and the ecological processes occurring are human-damaged enterprises.⁶ By restoring such species, we rehabilitate and re-invigorate natural processes and free them from human control. Without restoration, these ecosystems will bear the marks of human influence much longer than they otherwise would. One does not set a person free simply by stepping back while leaving her without limbs or in chains.

AME's insistence that there is no way to reverse pervasive human impact ignores the possibility of rewilding. Perring and Ellis suggest that we must "philosophically accept that nature has become embedded within human systems" and thus accept "a permanent role for humans as stewards of the biosphere" (2013, 78). Advocates of rewilding object to this permanent stewardship role and argue that, in many cases, it is important to let nature take care of itself. Revkin claims that "One clear reality is that for a long time to come, Earth is what we choose to make of it" (2011). But when we choose to rewild, we back away from our attempt to control and we enhance nature's power to decide what happens on Earth. While it is true that deciding when, where, and how much to rewild are "management decisions," they are a completely different kind of choice than are outcome-oriented decisions about how to fashion nature. Unlike the latter decisions, they place a trust in nature, emphasize modesty and humility in our relation to Earth, and aim to increase nature's autonomy.

Some advocates of AME have praised "novel ecosystems" because they embody the type of self-willed nature that advocates of rewilding promote. Recall that novel ecosystems are human-altered systems that contain heretofore unseen combination of species and potentially unique ecological processes. Furthermore, they are not managed by humans and do not depend on continued human intervention for their maintenance. As such, they "preserve evolution w/o human guidance" and "the rhythm of life they take up and the interplay of selection pressures they produce on one another are all up to them" (Marris 2011, 121). One should embrace novel ecosystems, Marris says, "If what one values is not existing species or ecosystems per se, but the process of evolution" (2011, 121). Joe Mascaro makes the same argument for novel ecosystems while attacking what he sees as the traditional preservationist goal of preserving museum pieces: "Do we value the fact that nature contains a list of things that where here a thousand years ago, or

⁶ These points are supported by recent findings about the importance of trophic cascades. The prevalence of top-down forcings in ecosystems means that human eradication of apex consumers "may be humankind's most pervasive influence on nature" (Estes 2011). Restoration reduces this influence.

do we value it because it has its own processes that are not under human control. The value I get from nature is seeing things happen naturally. That they include parts that humans moved around doesn't devalue it for me" (Quoted in Marris 2011, 122).

These are good reasons for valuing self-directed nature even when it does not instantiate a human-independent pattern. But respecting the self-willed nature in novel ecosystems is not to denigrate the value of nature that does instantiate such a pattern. It is also compatible with the contention that the self-directed nature in classical wilderness systems not significantly rearranged by humans is of greater value than the self-willed nature in novel ecosystems that have endured such alteration. Note that promoting the value of self-willed nature in novel ecosystems is in tension with both AME's idea that humans must be planetary managers and with its rejection of the central importance of naturalness in environmental policy.

Conclusion

AME is the latest embodiment of human hubris. It manifests a culpable failure to appreciate the profound role nonhuman nature continues to play on earth and an arrogant overvaluation of humans' role and authority. It ignores the absolutely crucial value of respect for nature's autonomy and leads us astray in environmental policy. It will have us downplaying the importance of nature preservation, restoration, and rewilding and it will have us promoting ecosystem invention and planetary engineering. Further, by promoting the idea that we live on an already domesticated planet, it risks the result that monetary and public support for conservation will seem futile and dry up (Caro et al. 2011). We should not get comfortable with massive human influence on Earth as AME suggests, but rather fight it. Such comfort is not the virtue reconciliation, but the vice of capitulation.

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