



## COMMENTARY

# The Reaches of Freedom: A Response to An Ecomodernist Manifesto

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*An Ecomodernist Manifesto's* ardent recommendations on some of the most salient ecological and social quandaries we face are motivated by a future world of “vastly improved material well-being, public health, resource productivity, economic integration, shared infrastructure, and personal freedom.”<sup>1</sup> The Manifesto calls for building a global civilization that is cosmopolitan, connected, and high-tech, in which all people enjoy social and political freedoms and can partake of other liberties that modernity valorizes, especially access to goods and technologies, mobility, and diverse opportunities. The world that the Manifesto hopes to see globalized is one where modern privileges are shared—from longevity and a modern standard of living, to rule of law and liberation from want. This world of universal prosperity can be achieved, the authors claim, on an ecologically vibrant planet. For the Manifesto such a future is well worth pursuing as it realizes a core value: human freedom.

The Manifesto's point of view—the social-material-natural world it envisions and that world's promise of freedom for all—is a humanism. Humanism is a Western sociocultural platform centered on human affairs, values, and wellbeing, and aspiring to the achievement of human dignity and the realization of human potential. Freedom is the precondition for the highest expression of the human and thus the ultimate value of humanism. Humanist goals are realized as authoritarian regimes fall, democratic forms of governance are instituted, a spirit of coexistence and tolerance becomes universally normative, poverty is abolished, and education, medical care, and leisure and the arts spread around the globe. All these goals are explicitly articulated and promoted in the Manifesto. Further, the authors' unabashed optimism for the future echoes historical humanism's affirmation of humanity's heroic capacity for progress and self-renewal. It is not incidental, of course, that humanism is at the heart of the Manifesto: humanism and modernity co-emerged, and it was the elaboration of the ideals of the former that enabled the latter to declare a decisive break from the past. The Manifesto augments

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<sup>1</sup> John Asafu-Adjaye, Linus Blomqvist, Stewart Brand, Barry Brook, Ruth de Fries, Erle Ellis, Christopher Foreman, David Keith, Martin Lewis, Mark Lynas, Ted Nordhaus, Roger Pielke Jr., Rachel Pritzker, Joyashree Roy, Mark Sagoff, Michael Shellenberger, Robert Stone, and Peter Teague, “An Ecomodernist Manifesto,” accessed 9 October 2015, <http://www.ecomodernism.org/manifesto>, 28.

humanism with its explicit concern for nature's fate. Perforce, since the destruction of nature has come to threaten the viability of modern civilization. Moreover, because by means of spreading modernization, the natural world itself will be saved. The authors thus advance a thesis for the mutual salvation of nature and civilization by means of modernization.

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All facets of the Manifesto's argument revolve around the mandates of its humanism. The latter dictates which developments humanity must proactively pursue, and conversely, which should be allowed to unfold in accordance with the inertia of their trajectories. The Manifesto's humanism also prescribes what aspects of nature's destruction demand immediate response and what aspects of nature's destruction it must pass over in silence.

According to the authors, technological development is the main engine for realizing the aspired-to world, and thus the imperative most stridently advocated. The construction and invention of needed technologies and technological systems—especially zero-emission energy solutions and techno-fixes for big problems like the depletion of freshwater and wild fish—are high priorities. So is the global spread of communications, infrastructures, and technological interventions into agriculture. Borrowing language from the Manifesto, technological progress must be accelerated in an active, assertive, and aggressive manner.

On the other hand, the trajectory of global population is released to unfold as it will. There is no call for active, assertive, and aggressive international policies to accelerate the stabilization and reduction of the human population as a strategy for heading toward a better world. (This omission is all the more notable since a call to become proactive about population is compatible with the modernization process that the authors advocate.) Instead, the population question is mentioned in passing, only to be promptly dropped with the claim that modernization—by fostering smaller families—will eventually lead to a stable and perhaps lower global population. The power injected into modernization to resolve the population question as a side-effect of modernization itself, coupled with the Manifesto's commitment to human freedom, streamline to deliver its position: let population follow its present course without agitating for international policies which might challenge people's reproductive behavior or their current cultural norms. Thus, moving forward, global population size is something that *happens* not an issue we deliberately and concertedly *do* something about.

For the Manifesto pursuing technological developments that are greener and more efficient in material throughput, energy requirements, and waste output is pressing. But changing economic structures and consumer behaviors regarding the production and consumption of materials, food, and energy is not at all necessary: in fact, as modernization unfolds, production and consumption patterns find an equilibrium of their own accord. According to the authors, the use of many resources peaks and the demand for many material goods saturates as societies grow wealthier.<sup>2</sup> Thus, just as modernization can handle the

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<sup>2</sup> Asafu-Adjaye *et al.*, "An Ecomodernist Manifesto," 13-14. The high energy/high consumptive lifestyle of the developed world, far from being called into question, is portrayed as the norm to be aspired to. Since, according to the authors, the per capita impact of a modern standard of living peaks and then finds a balance, the modern production-consumption nexus is not in need of radical change (beyond requisite energy shifts, efficiency tuning, and recycling solutions). The mega-technological systems that

population question, so the Manifesto suggests it may eventually resolve the conundrum of economic growth. The agency imputed to modernization to address the interlinked problems of a growing population and burgeoning affluence enables the authors to avoid urging specific changes in either demographic or economic/consumer trends. This allows the Manifesto to stand resolutely, if implicitly, by its value of human freedom.

Just as the Manifesto's point of view dictates what must be proactively pursued and what is to be released to work itself out, so it also delimits which environmental problems are critical and which—finding no available solution within its framework—must be elided. Unsurprisingly, for the Manifesto climate change is the burning issue since it directly threatens civilization's stability and the future fruition of global modernization.<sup>3</sup> Stepping up on technological R&D (e.g. next-generation solar and nuclear fusion), technological policy shifts (e.g. nuclear power), technological fixes (e.g. carbon capture and storage), and technological efficiency gains (e.g. decarbonization transitions) is strongly advised.

On the other hand, the mass extinction of life forms that the human enterprise has set into motion receives no mention in the Manifesto. (And extinction of species is mentioned once.) This is a startling omission for an eco manifesto: mass extinctions are geologically rare and catastrophic events; following such past cataclysms, it took millions of years for biological diversity to rebound—a timescale irrelevant for all future human generations. And yet the omission of mass extinction makes sense from the Manifesto's point of view.

Most saliently perhaps, mass extinction does not have a technological solution.<sup>4</sup> Effective action for preempting extinctions and halting a mass episode would consist in humanity embracing the twofold strategy of scaling down the human enterprise at demographic, economic, and infrastructural-expansion levels, while simultaneously protecting large-scale landscapes and seascapes as natural habitat. This approach calls for becoming proactive on the fronts of lowering the human population, de-growing the global economy, and restricting the spread of modern infrastructures; in parallel, it calls for substantially limiting human development or exploitation of the natural world. The twofold strategy of *scaling down* and *pulling back* challenges the freedom of humanity to continue growing as well as people's freedom to avail themselves of the biosphere as deemed necessary or desirable. But such an approach to averting extinctions comes into tension, if not direct conflict, with the Manifesto's point of view. Mass extinction thus remains unaddressed in the document, one, for lacking a technological solution, and two, for having a robust solution with the drawback of significantly limiting human freedoms.

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The authors do, however, have something to say about saving nature, and propose the mechanism of *decoupling*. After modernization transpires, goes the argument, some natural areas either remain relatively undisturbed or may regenerate following disturbance; humanity can then decouple itself (materially) from such places letting them be in a natural state. Just as

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the Manifesto advocates expanding (e.g. nuclear power and desalinization) are embraced *exactly* because they can (theoretically) continue sustaining a consumer standard of living.

<sup>3</sup> The Manifesto also mentions ozone depletion and acidification but focuses on climate change.

<sup>4</sup> De-extinction and synthetic biology, notwithstanding. Thankfully the Manifesto does not bring up these pseudo-fixes.

modernization ultimately balances global population and consumption levels, similarly the Manifesto contends that decoupling from nature will come to pass largely as a result of modernization itself.<sup>5</sup>

Decoupling is said to happen as a bonus of two modern trends: urbanization and industrial agriculture.<sup>6</sup> By concentrating people and food production into densely populated and densely cultivated areas, these trends allow some nature to be unoccupied and uncultivated. The nature that gets freed up humanity can stop damaging further. But *before* such decoupling can occur modernization must be carried forward, and this unavoidably entails “peak impact” in the authors’ words.<sup>7</sup> After the requisite peak impact has gotten everyone up-to-speed with modern life, and the dust settles in the wake of modernization, then whatever nature is left can be decoupled from. Neither the extent nor condition of the natural areas left over, post-global-modernization, are possible to predict; thus, the Manifesto remains silent about this particular aporia which is, of course, the heart of the matter for those concerned about the fate of the more-than-human world.

In brief, according to the authors, in the course of spreading its trends modernization is predicted to save some natural places, which can then be enjoyed for their non-utilitarian values. Yet important details that undermine or complicate this picture are left out or left vague.

Importantly, modern development proceeds by converting and exploiting a massive portion of the natural world, and *that* particular portion is not one humanity is decoupled from. The portion of the biosphere that modernization assimilates, humanity is and will be very much coupled with; except that “coupled” is hardly the right word—comprehensively dominated is a more accurate depiction. Let’s consider the prime case of food production, especially industrial agriculture, CAFOs (concentrated animal feeding operations), and industrial fishing. Industrial agriculture occupies extensive territories, after stripping them of their native life and engineering them for the production of grains, protein, oils, and fiber, most of which do not even directly serve as human food but as raw materials for industrial processing. An even larger portion of the globe allotted to livestock grazing is also roundly dominated, displacing wild animals, plants, and natural ecologies. In CAFOs farm animals are dispossessed of their natural life cycles, and treated as little more than easily subjugated objects to be rapidly turned over into commodities. Meanwhile, the vast majority of so-called fisheries<sup>8</sup> are fished to capacity or overfished, nine out of ten big fish are gone, and massive habitat destruction of continental shelves and increasingly of sea mounts are the legacy of industrial fishing.<sup>9</sup> On all fronts, industrial food production is a ruthless, machine-mediated subjugation

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<sup>5</sup> The Manifesto acknowledges that conservation does not happen automatically, but will require political action and a social movement (27). But the purported “land-sparing” developments enabling nature protection—agricultural intensification and urbanization—are effects of modernization itself.

<sup>6</sup> Interestingly, the Manifesto avoids reference to *industrial* agriculture, preferring the term *intensified* agriculture. By any other word, however, it smells exactly the same.

<sup>7</sup> Asafu-Adjaye *et al.*, “An Ecomodernist Manifesto,” 15, 19.

<sup>8</sup> “So-called” because there are of course no *fisheries* in the ocean; there are (were) fish, among other living beings.

<sup>9</sup> See Jeremy Jackson, “Ecological Extinction and Evolution in the Brave New Ocean,” *PNAS* 105, no.1 (2008): 11458-11465; Kristina Gjerde *et al.*, “Ocean in Peril: Reforming the Management of Global

of land and seas as well as of wild and domestic beings. Thus the decoupling from some unspecified amount of nature in some unspecified condition, envisioned by the Manifesto, is built on the domination of the greater share of the biosphere and nonhuman life.

A further complication surrounding decoupling involves the portrayal of urban centers and industrial agriculture as developments that curb, even minimize, human impact.<sup>10</sup> Yet it is established knowledge that the portion of nature that a city (its ecological footprint) utilizes far exceeds the land it occupies, while high-tech communication and transportation networks crisscrossing the globe have vastly amplified the consumptive reach of urban centers.<sup>11</sup> The claim that intensified agriculture contains human impact by concentrating production withstands even less scrutiny; for as a category of land-use, cities do not occupy the greatest share of the landscape (though typically they have been sited in areas of high-quality habitat). But industrial agriculture has swallowed up the temperate zone and, since the 1970s, has moved with disturbing alacrity into the tropical. But the amount of the physical world industrial agriculture devours is only part of the picture: if there is one defining difference between the respective impacts of preindustrial and industrial agriculture, it is that the latter bleeds its destructive consequences well beyond the land it sits on.<sup>12</sup>

A third complication surrounding decoupling concerns modernization's "peak impact" which, as noted, must precede the hoped-for release of some nature into a wild or quasi-wild state. Thinking this aspect of the Manifesto's argument through is an exercise in cognitive dissonance. The ecological impact of the developed world has been empirically represented by means of the much-publicized hockey-stick graphs showing the exploding consumption of materials, wildlife, food, and energy in the 20<sup>th</sup> and 21<sup>st</sup> centuries, all adding up to the mind-blowing fact that since 1950 people have consumed more than all previous generations combined.<sup>13</sup> Let's call this picture "version A" of modernization. Should version A be globally spread and emulated (more or less what is occurring), it is hard to imagine peak impact looking like anything less than planetary wreckage.

But here the authors beg to differ: Rather than disseminating version A, the Manifesto agitates for upgrading it to *version B*, both for the developed world itself and for sharing around

Ocean Living Resources in Areas beyond National Jurisdiction," *Marine Pollution Bulletin* 74, no. 2 (2013): 540-551.

<sup>10</sup> This complication is fudged in the Manifesto, because while cities and intensive agriculture are promoted as positive developments for the natural world, in other places in the same document their destructive impact is acknowledged. The Manifesto does not resolve these contradictory statements.

<sup>11</sup> As Tim Lang puts it, "[R]ich cities such as London or New York exert a covert land 'imperialism', using land elsewhere without owning it." Focusing on food in particular, he adds that "for its food consumption to be more equitable, each Londoner ought to consume 70 percent less meat, eat more than 40 percent local seasonal unprocessed food and cut waste by one tonne a year." Tim Lang, "Crisis? What Crisis? The Normality of the Current Food Crisis," *Journal of Agrarian Change* 10, no. 1, January (2010): 87-97, 92.

<sup>12</sup> As dead zones and greenhouse gas pollution attest. For an argument for the abolition of industrial agriculture, while simultaneously lowering the global population to two billion or lower, see my paper "Choosing a Planet of Life," in *Overproduction, Overpopulation, Overshoot*, ed. T Butler (Goff Books, 2015).

<sup>13</sup> See Will Steffen *et al.*, "The Trajectory of the Anthropocene: The Great Acceleration," *The Anthropocene Review* 2, no. 2 (2015): 81-89.

the globe. In version B of modernization, we are implicitly asked to believe, the perpendicular lines picturing modernity's impacts thus far will be softened into merely swelling curves by means of decarbonization transitions, greater managerial and technological efficiency, recycling operations, and greener material substitutes. Let's grant that version B might be cleaner and better than version A. Yet how the spread of an upgraded version of modernization to billions of people adopting consumer lifestyles within a global economy of expanded infrastructural development and trade could possibly offset the impending magnitude of that juggernaut is left a question mark.<sup>14</sup>

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To be more precise, it is left as a question mark in the reader's mind. It is not even flagged as a potential question in the Manifesto. Global modernization (along with its peak impact) is instead represented as something that *should* be completed and *can* be completed. The reason that it should be completed is for all people to enjoy the social and material freedoms that modernity offers. The reason that it can be completed is that there exist no definite biophysical limits to growth.

"Despite frequent assertions starting in the 1970s of fundamental 'limits to growth,'" the Manifesto asserts, "there is still *remarkably little evidence* that human population and economic expansion will outstrip the capacity to grow food or procure critical material resources in the foreseeable future." The authors add that there are essentially no "fixed physical boundaries to human consumption," and that with the right technologies and practices there exist "plentiful land and unlimited energy" to feed and fuel humanity.<sup>15</sup>

I've italicized the phrasing "remarkably little evidence" for limits to growth, because the Manifesto's humanist point of view is so pithily encapsulated therein. What the authors mean is that there exists little evidence that counts as valid evidence that there are limits to human demographic and economic growth (or that such limits have been exceeded). For the purpose of disclosing the terrain of evidence that the Manifesto does not consider to be evidence for limits to growth, I will grant something heretical for traditional environmentalism: that it is seemingly true that the expansion of the human enterprise has no definable limits. This begs the question: What makes it true?

What makes it true that there exist no limits to human growth is that one percent of the temperate zone remains as temperate grassland ecologies, half or more of Earth's life-rich wetlands are gone, and the rainforests are falling. What makes it true that no limits to growth exist is that glyphosate is everywhere and almost one billion monarch butterflies are missing; that freshwater biodiversity has suffered massive losses and there seems so little hope for what remains. What makes no-limits to human growth true is that the zoomass of wild vertebrates has become "vanishingly small" in comparison to the combined weight of humans and domestic animals, while the once enormous abundance of living beings in the ocean is gone—

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<sup>14</sup> This critique is made in detail in Jeremy Caradonna *et al.*, "A Call to Look Past An Ecomodernist Manifesto: A Degrowth Critique," accessed 9 October 2015, [http://www.resilience.org/articles/General/2015/05\\_May/A-Degrowth-Response-To-An-Ecomodernist-Manifesto.pdf](http://www.resilience.org/articles/General/2015/05_May/A-Degrowth-Response-To-An-Ecomodernist-Manifesto.pdf).

<sup>15</sup> Asafu-Adjaye *et al.*, "An Ecomodernist Manifesto," 9-10.

and who remembers?<sup>16</sup> What makes it true is that the great animal migrations are disappearing, wild animal populations are plummeting, and so many beings (wild and domestic) are deprived of the freedom to move, enjoy life, or even exist. We live in a time of extinctions and of mass extinction exactly because there are “no limits” to human growth.

When the Manifesto contends that “there is still remarkably little evidence that human population and economic expansion will outstrip the capacity to grow food or procure critical material resources in the foreseeable future,” none of the constrictions, inflictions, and exterminations with respect to the nonhuman world tally as valid evidence. What the Manifesto *would* admit as evidence for limits to growth is humanity encountering some insuperable obstacle to demographic or economic expansion, such as a hard agronomic boundary in food production or the depletion of some indispensable and non-substitutable resource. Since no such obstacle has arisen, nor threatens arising in the near future, then it follows that there is remarkably little evidence for humanity having breeched, or soon breeching, limits to growth.

Perhaps that’s so. But a tacit assumption of humanism is the magnetic force field securing the “no-limits-to-growth” argument’s cohesion. Here’s a quote to capture that assumption: “We are precisely in a situation where there are only human beings.”<sup>17</sup> By flaunting a counterfactual, this piece of sophistry propels its audience to encounter the substantive claim being peddled—that only humans are Subjects whose existence, experience, life-ways, wellbeing, and destiny matter and signify. The nonhuman domain, on the other hand, is one of sheer living and nonliving physicality, a world of objectivity that can, apparently, be rightfully and continually absorbed into the human domain. And so, while the more-than-human world can be damaged, it cannot be violated; even as it is endlessly changed and assimilated, it is never colonized. The nonhuman world can be neither violated nor colonized on account of a sleight-of-hand that humanism effects: the condition of freedom—the indispensable ground for the full realization of being and destiny—is arbitrarily rescinded from applying to that domain.

Humanism (usually *en passé*, since so much of history’s weight silently shores its zeitgeist) submits that there exist no claims to freedom *within* the nonhuman realm that command limits to human expansionism. The question we must duly ponder, however, is whether humanism’s conditioning has not made us tone-deaf to those claims, and whether humanism’s projection screen of nonhuman nature as a physical realm of the merely-living has not served to acquit human conscience from listening and responding to who and what dwells beyond our inculcated self-enclosure.<sup>18</sup>

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<sup>16</sup> Vaclav Smil, “Harvesting the Biosphere: The Human Impact,” *Population and Development Review* 37, no. 4, December (2011): 613-636, 618; Callum Roberts, *The Unnatural History of the Sea* (Washington D.C.: Island Press, 2007).

<sup>17</sup> Jean Paul Sartre, quoted in Martin Heidegger, “Letter on Humanism,” in *Martin Heidegger: Basic Writings*, ed. D. F. Krell (New York: Harper Perennial, 1977/1993), 213-265, 237.

<sup>18</sup> In this section I have been targeting the anthropocentric character of the Manifesto’s humanism. The relationship between anthropocentrism and humanism is both straightforward and complex. The dominant form of humanism since the European Renaissance and Enlightenment eras has been anthropocentric in its celebration of human preeminence and special potential, and its regard of the nonhuman world as a resource domain for human betterment. Nevertheless, humanism constitutes a sophisticated tradition that cannot be simply reduced to anthropocentrism (i.e. human species

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I am partial to the Manifesto's embrace of freedom as the highest ideal, and also agree that there are aspects of modern life that are good to keep and good to spread. (Bad food and nuclear power are not among them.) The problem does not lie with the ideal of freedom, but with limiting that ideal to humanity. Two distortions follow when freedom is delimited solely as a human privilege. One is that human freedom becomes easily founded on the demolition of nonhuman freedom. This is exactly the predicament we are in: Wherever we look the freedom of beings and ecologies is being trampled on by human expansionism. The second distortion that follows pertains to the human side: when our freedom is realized at the expense of the more-than-human world, and in oblivion of what is overrun and dismantled to secure its fulfillment, then a closer look at human "freedom" compels us to scare-quote the word. It is not freedom in any deep sense of the word that we are talking about here, but self-conferred entitlement.

What if we took on board the aspiration to human freedom but broadened it into a universal ideal. Our intent would become creating an ecological civilization which honored the freedom of all—nonhuman and human.<sup>19</sup> This aspiration would steer our endeavors in a different direction than the Manifesto urges.

Firstly, we'd be bound to recognize that for human freedom to coexist alongside nonhuman freedom, many of our modern so-called freedoms are in need of restricting. What would then galvanize our collective attention is the question of how we inhabit Earth: including how many of us there are, how we organize our economic relations, and what proportion of land and seas we occupy and use. In rethinking human inhabitation, we are directed toward actively doing something about the exact issues that the Manifesto releases to work themselves out of their own accord. To be sure, technology is an important part of the conversation, but it is secondary to and subsumed under the imperative to scale down and pull back the human enterprise substantially. Space considerations limit elaborate discussion. But to give a sense of the vision of scaling down and pulling back in the name of freedom broadly understood, I touch on four issues: transportation, global trade, CAFOs, and wilderness.

Let's assume that humanity achieves the energy transition and recycling revolution required for sustaining modern transportation. (For simplicity's sake, I consider cars.) If people want to enjoy the kind of mobility the automobile offers, without (literally and figuratively) running over the nonhuman world, then it follows that the scale of automobile production and the scope of its reach must be hugely restricted. Restricting the scale of production implies moving, without further delay, toward a far lower human population than today's, and it also

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supremacy). Humanism is a philosophical-cum-lived inquiry into human life that seeks to cultivate such elevated qualities as reason, virtue, responsibility, perfectibility, solidarity, and self-realization. The attainment of (and universal right to) individual autonomy and dignity feature big in humanism. Thus, while historically human supremacy (i.e. anthropocentrism) and humanism have been deeply entangled and usually coextensive, at least theoretically a non-anthropocentric humanism is possible as I hint at the end of this essay.

<sup>19</sup> Including human freedoms that modern techno-industrial civilization abolishes—most importantly, the freedom to live in a world that is not dominated by that civilization.



implies cultivating a global culture of sharing vehicles and making them durable. Restricting the automobile's scope means that the existence of cars does not entitle humanity to build roads endlessly and wherever. Vast territories must remain roadless and many roadways already in existence need to be undone. In other words, if (it turns out that) humans want the desired or perceived freedom of automated mobility, then it behooves us to figure out how to retain that freedom without intruding (or intruding minimally) on the freedom of the more-than-human world.

Trade has always been attractive to human beings. Trade can make for friendly neighbors, works as a safety net in trying times, and enhances human life culturally and materially. But global trade today has become the organizing principle of economic relations with ruinous consequences for the biosphere.<sup>20</sup> Trade is a leading cause of extinctions and the leading cause of the devastation of marine life. Therefore while trade in some measure is good, today's so-called free trade has little to commend it. The scale and scope of trade must be lessened by orders of magnitude. Again, a lower population is vital, but so is the end of drowning the world with junk, rapidly obsolescing products, and more and more on the theme of More. Moreover, the ongoing infrastructural gridding of landscapes and seascapes, intended to serve the endless and mindless expansion of trade, must cease if the freedom of beings and ecologies is to be respected. Prioritizing food sovereignty (i.e. attending mostly to local and regional needs) over food production oriented toward export markets is another critical feature of scaling down trade in an ecological civilization. In short, with universal freedom as the highest value, we are called to redesign how and what we trade and to restrict our trading grids—and of course there must be fewer of us trading.

Turning to the example of CAFOs, let's start by acknowledging that CAFOs represent an epiphany of objectifying and enslaving nonhumans so that modern people might enjoy the "freedom" to eat cheap animal products whenever they feel like it. From the standpoint of freedom for all, CAFOs should be abolished and the animals returned to sunlit fields and free seas where they belong. The abolition of CAFOs, alone, has momentous implications for building an ecological civilization. Because if billions of farm animals were free to graze, then even larger swaths of natural habitat than domestic animals currently occupy would be overtaken, impinging on the freedom of wild ecologies and wild organisms. The pathway to resolving this conundrum is not rocket science. The human population needs to be far lower so that the global domestic animal population can follow suit. Yet even with fewer of us and our domestics, those who choose to be omnivores must eat meat, fish, and animal products sparingly, so that the Earth, the animals, and human wellness may all thrive.

Lastly, the most encompassing context for the thriving of all life is the freedom of the biosphere to express its nature. The biosphere's nature (barring anthropogenic or natural catastrophe) is to create biological diversity, abundance of wild beings, complex and dynamic ecologies, extraordinary living phenomena (such as stupendous animal migrations, biodiverse ancient forests, and vast mycorrhizal networks), and fascinating variations of forms of awareness. For the biosphere to be free to express its nature, we must pledge continental- and oceanic-scale territories to remain unoccupied, unexploited, and unfragmented (or minimally

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<sup>20</sup> As well as for many human beings driven off the land, abjectly exploited, or forced into "jobs" that are a soulless grind.

fragmented). Being-wilderness is the original nature of the biosphere and the precondition to fully express itself “as a work of art that gives birth to itself.”<sup>21</sup>

Our work, then, is to think deeply about what human freedom looks like within this autopoietic living world. It may seem like a gloomy exercise in self-restrictions, but such would be a superficial assessment. For ironically, humanity’s willful embrace of limitations harbors the realization of humanism’s ideal. This is so because genuine human freedom cannot be achieved at the expense of the freedom of the whole. It is not only that other beings and places suffer—extinguished, constricted, enslaved, managed, or treated as objects. What suffers by the exact same token is the dignity of the human that humanism holds so dear.

## Bibliography

- Asafu-Adjaye, John, *et al.* “An Ecomodernist Manifesto.” Accessed 9 October 2015. <http://www.ecomodernism.org/manifesto-english/>.
- Caradonna, Jeremy, *et al.* “A Call to Look Past *An Ecomodernist Manifesto: A Degrowth Critique.*” Accessed 9 October 2015. [http://www.resilience.org/articles/General/2015/05\\_May/A-Degrowth-Response-to-An-Ecomodernist-Manifesto.pdf](http://www.resilience.org/articles/General/2015/05_May/A-Degrowth-Response-to-An-Ecomodernist-Manifesto.pdf).
- Crist, Eileen. “Choosing a Planet of Life.” In *Overproduction, Overpopulation, Overshoot*, edited by T. Butler, Goff Books, 2015.
- Gjerde, Kristina, Duncan Currie, Kateryna Wowk, and Karen Sack, “Ocean in Peril: Reforming the Management of Global Ocean Living Resources in Areas beyond National Jurisdiction.” *Marine Pollution Bulletin* 74, no. 2 (2013): 540-551.
- Heidegger, Martin. “The Word of Nietzsche: ‘God is Dead.’” In *The Question Concerning Technology and Other Essays*, translated by W. Lovitt, 53-119. New York: Harper Perennial, 1977.
- \_\_\_\_\_. “Letter on Humanism.” In *Martin Heidegger: Basic Writings*, edited by D. F. Krell, 213-265. New York: Harper Perennial, 1977/1993.
- Jackson, Jeremy. “Ecological Extinction and Evolution in the Brave New Ocean.” *PNAS* 105, no. 1 (2008): 11458-11465.
- Lang, Tim. “Crisis? What Crisis? The Normality of the Current Food Crisis.” *Journal of Agrarian Change* 10, no. 1, January (2010): 87-97.
- Roberts, Callum. *The Unnatural History of the Sea*. Washington D.C.: Island Press, 2007.
- Smil, Vaclav. “Harvesting the Biosphere: The Human Impact.” *Population and Development Review* 37, no. 4, December (2011): 613-636.
- Steffen, Will, Wendy Broadgate, Lisa Deutsch, Owen Gaffney, and Cornelia Ludwig. “The Trajectory of the Anthropocene: The Great Acceleration.” *The Anthropocene Review* 2, no. 1 (2015): 81-98.

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<sup>21</sup> Wilderness means large-scale, contiguous, free, and self-arising landscapes and seascapes. The quote is from Friedrich Nietzsche, cited in Martin Heidegger “The Word of Nietzsche: ‘God is Dead,’” in *The Question Concerning Technology and Other Essays*, trans. W. Lovitt (New York: Harper Perennial, 1977), 53-119, 85.