

An Eco-Realist's Response

An examination of "An Ecomodernist Manifesto"

By Joseph Ratliff

I love the idea that humans are capable of using technology to solve big problems. I also love the idea that, in some ways, we can use that technology to control our environment (e.g. air-conditioning).

But I worry that we get so excited about what we are capable of doing as a species, that we lose sight of the long-term impacts of the politics, thinking, and technologies we produce as we explore our environment. Those same politics, our thinking, and our technology that sometimes drive us to do things that do **not** have the desired impacts we originally intended.

Take our extraction and use of carbon, oil, etc... and its initial benefits to society. Cheap energy, the Industrial Age, and many other technological innovations were made possible as a result of these resources.

But now, we are running head-on into the realistic catastrophe that is the result of our thinking, politics and technology use. Carbon depletion, a warming planet, and stubborn industry executives who insist on straining the very life blood of this planet (and our existence on it) are the result of our overuse (and quite frankly, disrespect) of the gift our only planet provided us.

But I'm not going to turn this short manifesto into a seething diatribe against "Big Oil" and other industry giants, which are seemingly bent on draining every last dollar of profit worth of carbon and selling it back to us, even in the face of our obvious environmental challenges. They are a problem to contend with, that is for sure. I

wanted to provide a very short introduction of sorts to the perspective this writing is coming from.

Now I want to (with my human biases intact) examine *An Ecomodernist Manifesto*.

Let's begin...

To say that the Earth is a human planet becomes truer every day.

This is the first line of “An Ecomodernist Manifesto,” and seems to have a rather arrogant tone to it. We (humans) do not own this planet. The planet itself, and all of the complex ecological systems that comprise it (us included), do not establish ownership over one another, of any kind.

We exist within it.

Did we sign some “deed of ownership” to the planet Earth?

We are an animal species, existing in a symbiotic relationship with other living species (and organisms). Of course, “symbiotic” means that we do not always exist in a beneficial relationship with other species, but that is much different than respecting that we do not own this planet.

That said, we are in the **Anthropocene** within the context of the geological age. This is because humans are the dominant influence on the climate and environment, but **not** because of the entitled view of ownership (and “remaking the planet in our hands,” as said in *An Ecomodernist Manifesto*).

We are not mystically entitled to “make room for Nature” as said in another part of their Manifesto (bolding mine):

In this, we affirm one long-standing environmental ideal, that humanity must shrink its impacts on the environment to make more room for nature, while we **reject** another, that human societies must harmonize with nature to avoid economic and ecological collapse.

Entitled species, aren't we?

To think that we should declare ourselves “owners,” and decouple ourselves from the very environment that gave us birth (actually, the organisms that evolved over time into Homo-sapiens)?

Which leads to the confusion I had with *An Ecomodernist Manifesto*, the rather entitled “have our cake and eat it too” mentality that is written throughout.

Let's take this statement as one example:

Intensifying many human activities — particularly farming, energy extraction, forestry, and settlement — so that they use less land and interfere less with the natural world is the key to decoupling human development from environmental impacts. These socioeconomic and technological processes are central to economic modernization and environmental protection. Together they allow people to mitigate climate change, to spare nature, and to alleviate global poverty.

There are two problems I see with this guiding principle in their Manifesto.

1. That this is some sort of negotiation, where we bring our science and technology to “the table,” and Nature (the environment) is somehow “spared” along with mitigating climate change and alleviating global poverty.
2. That “intensifying human activities” is allowed because we will make it so, within the finite resources available on our planet.

Now I'm going to grant that yes, we are capable of doing and thinking big things with our technology. We could develop, for example, technology that could “clone” any part

of a cow and with that meat ... we could potentially feed millions of people that currently starve.

But remember the extraction, use, thinking and politics that went into carbon energy and our current version of industry in the first place?

Look where that has led us ... “peak oil,” fracking (no, it isn’t safe, and earthquakes), pollution of the atmosphere, and spills, mistakes, endless growth etc...

That’s us, too. We, a species of animal on this planet, did all of that.

But when I read their Manifesto, I get the feeling that somehow we are going to “make it all go away.”

We are going to decouple ourselves from the environment, keep doing what we’ve been doing (but with better technology and practices), at an increased pace, and somehow create our own magical ecosystem where Nature is a separate entity we no longer have to “harmonize” with.

But I digress.

Let’s continue examining their Manifesto...

Average life expectancy has increased from 30 to 70 years,

This is debatable. Adult life expectancy has remained about the same, but because of low birth rate the average age of our species was about 30-ish years ago.

(NOTE: Here is a [five part series that links to the reputable explanations of this and other common longevity misconceptions](#))

So, if our understanding of longevity is debatable, can our technological advances really “bring enough to the table” to **intensify** them *and* respect the environment (that same technology, with all of the energy costs and externality that come along with it)?

Again, I don’t want to downplay our ability to build technology that does some amazing things. We have improved mobility, hygiene, communication, decreased violence, and we are even controlling our environment to some degree.

But the questions we seem to forget to fully acknowledge when we get excited by our advances and progress is:

*What is the **full** inventory of the “costs” of using our various technologies?*

And...

*How can we avoid doing what we’ve already done, failing to **internalize** those costs to the entities (companies, cities etc...) creating them?*

In other words, if we ignore the short and the long-term costs and consequences of our “ecomodernism” ... as we have already done with extraction, use of, and our politics of carbon and oil resources ... then how can we “intensify” our human activities and still live as good stewards of this planet, let alone “spare” Nature?

Here is where I begin to seriously part ways with *An Ecomodernist Manifesto*:

The role that technology plays in reducing humanity’s dependence on nature explains this paradox. Human technologies, from those that first enabled agriculture to replace hunting and gathering, to those that drive today’s globalized economy, have made humans less reliant upon the many ecosystems that once provided their only sustenance, even as those same ecosystems have often been left deeply damaged.

Just because technology we create allows us to reduce our dependence on Nature, does **not** mean we can choose to ignore the impact that our technology has *on* Nature.

Plus, this implies we are going to engineer our own Nature, necessary to fully decouple, somehow.

So, reducing our dependency on Nature isn't enough for an Ecomodernist, apparently...

Despite frequent assertions starting in the 1970s of fundamental "limits to growth," 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.

To the degree to which there are fixed physical boundaries to human consumption, they are so theoretical as to be functionally irrelevant. The amount of solar radiation that hits the Earth, for instance, is ultimately finite but represents no meaningful constraint upon human endeavors. Human civilization can flourish for centuries and millennia on energy delivered from a closed uranium or thorium fuel cycle, or from hydrogen-deuterium fusion. With proper management, humans are at no risk of lacking sufficient agricultural land for food. Given plentiful land and unlimited energy, substitutes for other material inputs to human well-being can easily be found if those inputs become scarce or expensive.

The problem with this part of the Manifesto is (at least) two-fold.

1. We didn't choose to adopt this plentiful energy supply initially, instead opting for the low hanging fruit of oil and carbon.
2. That type of short-term thinking concerns me. If we had waited 125 years or less as a species (a blip on the cosmic timescale) we could have saved the predicament we are in now on this planet.

But we cannot focus on "could have" can we?

Because we haven't yet adopted any of this "plentiful" energy fully, and worked out the bugs and politics of doing so, so "prove it" comes to mind (like I Tweeted of my initial impression when I skimmed it). As for the land, well, we also need to overcome the depleted resources in our soil before we can definitively say we have "plentiful" amounts of it in an agriculturally useful sense.

And it's functionally irrelevant?

I'm sure all 19 signatories of this manifesto won't make the leap to "plentiful" unless most or all of that "plentiful" is useful for the long-term, correct? In short, prove it.

Because we cannot, if we were "Ecomodernists," continue to use more and more of a **finite** resource such as land (our planet is mostly water). This use would also disrupt the balance of other ecosystems and force other animal species to migrate or become extinct.

An Ecomodernist Manifesto takes a turn to acknowledging these bigger problems here:

There remain, however, serious long-term environmental threats to human well-being, such as anthropogenic climate change, stratospheric ozone depletion, and ocean acidification. While these risks are difficult to quantify, the evidence is clear today that they could cause significant risk of catastrophic impacts on societies and ecosystems. Even gradual, non-catastrophic outcomes associated with these threats are likely to result in significant human and economic costs as well as rising ecological losses.

But then, pulls a minor re-direct to more "immediate" problems here:

Much of the world's population still suffers from more-immediate local environmental health risks. Indoor and outdoor air pollution continues to bring premature death and illness to millions annually. Water pollution and water-borne illness due to pollution and degradation of watersheds cause similar suffering.

I agree on both parts, the “bigger” AGW problem, **and** the more immediate problems. But you can’t wash your hands of one or the other, and any attempts to decouple *from* Nature cannot ignore (or externalize) the impact your solutions have *on* Nature.

An Ecomodernist Manifesto then takes a turn into what I will call the “danger zone.”

Including (merging, assimilating), “economic growth” as a tool to show a, in these 19 signatories’ words, relative decoupling of human well-being from environmental impacts...

Even as human environmental impacts continue to grow in the aggregate, a range of long-term trends are today driving significant decoupling of human well-being from environmental impacts.

Decoupling occurs in both relative and absolute terms. *Relative* decoupling means that human environmental impacts rise at a slower rate than overall economic growth. Thus, for each unit of economic output, less environmental impact (e.g., deforestation, defaunation, pollution) results.

Humans created the “economic growth” this Manifesto points to. But the organisms within the ecological systems on this planet had no “say” in creating the “rules” that guide this economic growth, and understandably so (they can’t speak).

So it begs the question ... are we, if we are an Ecomodernist, to say that an artificially created system of trade dictates or measures (by economic output) our human-generated impacts on the environment?

Why not directly measure our impact on that environment, instead of comparing it to dollars and cents?

Why are we comparing the two if we are to be decoupling?

Next the Manifesto takes on population growth and cities...

The growth *rate* of the human population has already peaked. Today's population growth rate is one percent per year, down from its high point of 2.1 percent in the 1970s. Fertility rates in countries containing more than half of the global population are now below replacement level. Population growth today is primarily driven by longer life spans and lower infant mortality, not by rising fertility rates. Given current trends, it is very possible that the size of the human population will peak this century and then start to decline.

Nobody knows what will happen with a growing population, but let's give the Ecomodernists the "rate" of population growth, wait...

They just wrote population growth will decline ("very possible"), and is now driven by longer life span. So, if we figure out how to technologically live to 150 within the same century (also "very possible"), and we only "start" to decline this century... ??? Those two factors alone leave 9 – 12 billion people on the planet for much longer (approx.).

All of these people will still be consuming resources, using energy etc... so even if (still an "if") we decline in population, the *finite* (not infinite) resources we have still deplete at a rate congruent with their existence on the planet.

Then, the Manifesto covers cities...

Trends in population are inextricably linked to other demographic and economic dynamics. For the first time in human history, over half the global population lives in cities. By 2050, 70 percent are expected to dwell in cities, a number that could rise to 80 percent or more by the century's end. Cities are characterized by both dense populations and low fertility rates.

Cities occupy just 1 to 3 percent of the Earth's surface and yet are home to nearly four billion people. As such, cities both drive and symbolize the decoupling of humanity from nature, performing far better than rural economies in providing efficiently for material needs while reducing environmental impacts.

Minimizing the impact of a city on the environment isn't lost on me, however.

IMPORTANT: That “1 to 3 percent” of the Earth’s surface still requires resources from most of the **other** parts of the same Earth’s surface in order to operate. Enough resources to have to write this (and other) Manifestos, and have important discussions about our environmental impact in the first place.

So while it’s nice to try and think we aren’t consuming resources at an impressive clip, we are.

And the Ecomodernists are correct, cities **are** characterized by dense populations, sometimes too dense (Delhi, India and Tokyo, Japan come to mind).

Providing *efficiently* for material needs, while *reducing* environmental impacts?

Have you seen how many people got displaced, because of the rising sea level, and had to move into already overpopulated cities?

We haven’t quite moved to that utopian vision just yet.

Although I acknowledge we are *slowly* (perhaps too slowly) progressing toward it with new energy technologies like solar and battery storage, but the same questions arise, at what cost? Are those costs (all of them) internalized or externalized?

We haven’t even factored in politics and large companies that stubbornly continue to use the depleting (finite) energy supplies we are currently accessing (carbon and oil).

How many years (decades) will it take before we get to use the utopian “limitless, low impact” energy identified in the Manifesto? Will it be too late to adopt an Ecomodernist position by the time we can access these sources fully?

Again, prove it.

Then, the Manifesto moves to Agriculture, which on the basis it introduces its points, I can mostly agree with. We have a leverage point with Agriculture we aren't using as efficiently as we can (combining it with hopeful upcoming advances in technology allowing us to feed more people with less energy resource depletion).

An Ecomodernist Manifesto then begins to, in its defense, outline some of the issues I've brought up to this point. It highlights energy needs, climate, fossil fuel use etc... as problems (the way we are using them).

Ahhh, but victory is short-lived as an Ecomodernist...

Because this doozy is presented:

Climate change and other global ecological challenges are not the most important immediate concerns for the majority of the world's people. Nor should they be. A new coal-fired power station in Bangladesh may bring air pollution and rising carbon dioxide emissions but will also save lives. For millions living without light and forced to burn dung to cook their food, electricity and modern fuels, no matter the source, offer a pathway to a better life, even as they also bring new environmental challenges.

Meaningful climate mitigation is fundamentally a technological challenge. By this we mean that even dramatic limits to per capita global consumption would be insufficient to achieve significant climate mitigation. Absent profound technological change there is no credible path to meaningful climate mitigation. While advocates differ in the particular mix of technologies they favor, we are aware of no quantified climate mitigation scenario in which technological change is not responsible for the vast majority of emissions cuts.

We can't just ignore long-term challenges (like climate mitigation) in favor of relatively immediate gratification (like improving lives for people in under-developed areas).

We have to solve **both** (if it already isn't too late, because of our ignorance thus far). It's noble to want to wave the hand at the climate, in favor of human well-being ... but both must be addressed.

And an Ecomodernist apparently gives up on the climate mitigation part in the Manifesto:

Transitioning to a world powered by zero-carbon energy sources will require energy technologies that are power dense and capable of scaling to many tens of terawatts to power a growing human economy.

Most forms of renewable energy are, unfortunately, incapable of doing so. The scale of land use and other environmental impacts necessary to power the world on biofuels or many other renewables are such that we doubt they provide a sound pathway to a zero-carbon low-footprint future.

While the Manifesto is incorrect about “land use” (rooftops anyone?), energy and resource depletion again come into play here (to make solar panels etc...), as well as the trap of internalizing costs.

I don't want to stop at ignoring decades of a change in climate we've **already** locked ourselves into (+1.5 C to +3.5 C depending on who you reference).

In fairness, the Manifesto doesn't absolutely ignore this either, bringing nuclear power to the table as well as solar as possible solutions IF we can meet the energy demands.

The problem remains the same, can we also mitigate the demands for energy? At what costs?

Section 4 of the Manifesto does a pretty good job at identifying the problems, not as well for solutions.

But earlier sections of the manifesto were keen on ensuring we could (and should) “decouple” from Nature (if even partially)?

In section 5, the Ecomodernists state their respect for Nature, as I was confident they would:

We write this document out of deep love and emotional connection to the natural world. By appreciating, exploring, seeking to understand, and cultivating nature, many people get outside themselves. They connect with their deep evolutionary history. Even when people never experience these wild natures directly, they affirm their existence as important for their psychological and spiritual well-being.

Humans will always materially depend on nature to some degree. Even if a fully synthetic world were possible, many of us might still choose to continue to live more coupled with nature than human sustenance and technologies require. What decoupling offers is the possibility that humanity's material dependence upon nature might be less destructive.

The case for a more active, conscious, and accelerated decoupling to spare nature draws more on spiritual or aesthetic than on material or utilitarian arguments. Current and future generations could survive and prosper materially on a planet with much less biodiversity and wild nature. But this is not a world we want nor, if humans embrace decoupling processes, need to accept.

What we are here calling nature, or even wild nature, encompasses landscapes, seascapes, biomes and ecosystems that have, in more cases than not, been regularly altered by human influences over centuries and millennia. Conservation science, and the concepts of biodiversity, complexity, and indigeneity are useful, but alone cannot determine which landscapes to preserve, or how.

How can we decouple, even partially, when Nature **is** going to represent the very set of complicated biological processes, resources et al that present the most major challenges in decoupling from it?

Then the Ecomodernists dive right in to the safe statement:

Too often, modernization is conflated, both by its defenders and critics, with capitalism, corporate power, and laissez-faire economic policies. We reject such reductions. What we refer to when we speak of modernization is the long-term evolution of social, economic, political, and technological arrangements in human societies toward vastly improved material well-being, public health, resource productivity, economic integration, shared infrastructure, and personal freedom.

The reason modernization **is** conflated (and quite frankly, connected) with capitalism et al, is because those entities are attached to the idea of a progressing society.

They are baggage for the Ecomodernist.

Then, the identification of “what we all want” as humans enters the Manifesto. All of the good stuff.

But we all have a responsibility that goes along with the benefits identified in the Manifesto. We have to address challenges big and small, and I suppose the “decoupling” being identified in the Manifesto isn’t really a decoupling at all.

It’s more of a negotiation with the ecosystems of this one planet we all live on.

In section 7 of the Manifesto, they finish with this (bolding mine):

It is our hope that this document might contribute to an improvement in the quality and tenor of the dialogue about how to protect the environment in the 21st century. **Too often discussions about the environment have been dominated by the extremes, and plagued by dogmatism, which in turn fuels intolerance.** We value the liberal principles of democracy, tolerance, and pluralism in themselves, even as we affirm them as keys to achieving a *great* Anthropocene. We hope that this statement advances the dialogue about how best to achieve universal human dignity on a biodiverse and thriving planet.

I agree with this conclusion, and bolded part of the content. That said, the “extremes” they refer to must exist in all discussions, which makes moving the discussion forward challenging to say the least.

But the extremes do provide a necessary balance, so we can see what both **MUST** happen, and what **MUST NOT** happen. The Ecomodernists are right in that the “extremes” need not dominate the discussion.

We need to find the middle ground, and quickly.

In the end, this was an admirable effort to bring an entire library's worth of issues to the table, and identify what that middle ground might look like.

I suggest you download and print a [copy from here](#).

I don't know the ultimate answer, some people think there isn't an answer ... and some lean heavily on their version of THE answer.

Maybe we're just human, maybe we will try this Ecomodernist experiment out and it will succeed wildly.

I hope for the best of all of us to come out of this experiment, whether it succeeds or fails. Like Carl Sagan once [said](#), we all exist on the same speck of dust in a stream of light.