



## The Anthropocene: The Promise and Pitfalls of an Epochal Idea

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What would it mean to imagine *Homo sapiens* as not merely a historical but a geological actor, a force of such magnitude that our impacts are being written into the fossil record? What would it mean to acknowledge that, for the first time in Earth's history, a sentient species, our own, has shaken Earth's life systems with a profundity that paleontologist [Anthony Barnosky](#) has likened to an asteroid strike? How might that perceptual shift disturb widespread assumptions about human history, ethics, power, and responsibility?

Such consequential questions follow from the turn to the Anthropocene, [a hypothesis advanced by](#) Nobel Prize-winning atmospheric chemist Paul Crutzen and ecologist Eugene Stoermer in 2000. They argued that the Holocene was history: the Earth had entered a new, unprecedented geological epoch, triggered by human actions.

Crutzen and Stoermer dated this rupture to the late eighteenth century beginnings of the industrial revolution. So according to the dominant Anthropocene script, over the past two-and-a-quarter centuries we have been laying down in stone a durable archive of human impacts to Earth's geophysical and biophysical systems. Those long-term impacts have become particularly acute since 1950 during the so-called Great Acceleration.

We have decisively altered the carbon cycle, the nitrogen cycle and the rate of extinction. We have created unprecedented atomic isotopes and fossilized plastics. We have erected megacities that will leave an enduring footprint long after they have ceased to function as cities. We have changed the pH of the oceans and have shunted so many life forms around the globe—inadvertently and intentionally—that we are creating novel ecosystems everywhere. Of vertebrate terrestrial life, humans and our domesticated animals now constitute over 90% by weight, with less than 10% comprised by wild creatures.



*The melting of Greenland. Photograph by Anne McClintock.*

When Crutzen and Stoermer advanced their hypothesis, they couldn't possibly have imagined what an immense, omnivorous idea it would become. It took a while, but by the millennium's second decade those enthralled and appalled by the Anthropocene were being sucked, in their interdisciplinary masses, into its cavernous maw. Enthusiasts and skeptics poured in from paleobotany and postcolonial studies, from nanotechnology and bioethics, from Egyptology, evolutionary robotics, feminist psychology, geophysics, agronomy, post-humanism and druidic studies. The classicists arrived alongside the futurists, where they mingled with students of everything from plastiglomerates to romantic prosody, from ruins to rewilding.

This has arguably been the most generative feature of the Anthropocene turn: the myriad exchanges it has stimulated across the earth and life sciences, the social sciences, the humanities and the arts, bringing into conversation scholars who have been lured out of their specialist bubbles to engage energetically with unfamiliar interlocutors. The humanities and arts have become vital to this conversational mix, which is as it should be. For the Anthropocene hypothesis shakes the very idea of what it means to be human. If, collectively, we're a hurtling hunk of rock that feels, what does that mean for the stories we tell about our species and our place in life on Earth? What does it mean for the ethics of human actions? What are the imaginative and emotional pressures of opening up the human to

geological time scales? We're simply not accustomed—maybe even equipped—to conceive of human consequences across such a vastly expanded temporal stage. How can we begin to internalize our role as Anthropocene actors, to inhabit that role feelingly?

To such imaginative questions we must add political ones. The Anthropocene—often for good reason—has proven hugely controversial. Let's focus on a few crucial disagreements. First, what is lost and gained by adopting the Anthropocene's grand species perspective on the human? Does this epic vantage point risk suppressing—historically and in the present—unequal human impacts, unequal human agency, and unequal human vulnerabilities? Does lumping together under the sign of the human the average twenty-first century Liberian and the average American as agents of planetary change risk concealing more than it reveals?

So a crucial challenge facing us is this: how do we tell two large stories that can often seem in tension with each other, a convergent story and a divergent one? First, a collective story about humanity's impacts that will be legible in the earth's geophysical systems for millennia to come. Second, a much more fractured narrative. For the species-centered Anthropocene meme has arisen in the twenty-first century, a period in which most human societies have experienced a deepening schism between the uber-rich and the ultra-poor. In terms of the history of ideas, what does it mean that the Anthropocene as a grand explanatory species story has taken hold during a plutocratic age? And from an imaginative perspective, how can we counter the centripetal force of the dominant Anthropocene species story with centrifugal stories that acknowledge immense inequalities in planet-altering powers? (Not to speak of inequalities in access to resources and exposures to risk in a time of deepening disparities.) We may all be in the Anthropocene but we're not all in it in the same way.

A second controversy separates those who might be called command-and-control Anthropocene optimists and those who are skeptical of such a mindset. In the former camp stands geographer [Erle Ellis](#), who believes “we must not see the Anthropocene as a crisis, but as the beginning of a new geological epoch ripe with human-directed opportunity.” Ranked alongside him are science journalists Mark Lynas (author of *The God Species*) and [Ronald Bailey](#) who insists that “over time, we will only get better at being the guardian gods of the earth.” As their mantra, these Anthropocene optimists cite Stewart Brand's exhortation: “we are as gods and must get good at it.”<sup>1</sup>

But for others, talk of *Homo sapiens* as god species, as Earth's surrogate divinity, is positively chilling. Hasn't a hubristic mindset of earth mastery, of dominion over nature, gotten us into this mess as unwitting geological actors? Earth mastery, moreover, conjures up disturbing associations with the race, gender and class hierarchies of the selective enlightenment. For the climatologist Mike Hulme, there is a direct line between such megalomaniacal thinking and the reckless adventurism of a small, powerful set of geo-engineers and their billionaire backers who harbor ambitions to “reset the global thermostat.” To which I'd add this: we should not equate human planetary impact with human planetary control, as either a possibility or an ideal. Moreover, humility before the incalculable complexities of a rapidly changing Earth is not the same as quietism.



*Louisiana Sinking. Photograph by Anne McClintock.*

Science writer Elizabeth Kolbert has tweeted: “two words that probably should not be used in sequence: ‘good’ & ‘anthropocene.’” Environmental philosopher [Kathleen Dean Moore](#) goes further, suggesting that the Anthropocene would have been better named the Unforgiveable-crimescene.

Concern over hubristic responses to the Anthropocene leads us to a third controversy. Does the very notion of an Age of Humans risk encouraging species narcissism? It’s one thing to recognize that *Homo sapiens* has accrued massive bio- and geomorphic powers. But it’s another thing altogether to fixate on human agency to a degree that downplays the imperfectly understood, infinitely elaborate webs of non-human agency, from the microbiome to the movement of tectonic plates, that continue to shape Earth’s life systems. To be sure, humans—especially the wealthiest of us—possess planet-altering powers, but we do not exercise those powers in isolation from other forces.

“Geologically, the Anthropocene is a remarkable episode in the history of the planet,” says paleontologist [Jan Zalasiewicz](#). But what began as a data-driven scientific debate over how to measure and project the human fingerprint in the fossil record has spread to almost every imaginable scholarly field. The power of the Anthropocene—by turns illuminating, exasperating, alarming—is not reducible to metrics. As environmental historian Libby Robin observes, “the question is how people can take responsibility for and respond to their changed world. And the answer is not simply scientific and technological, but also social, cultural, political and ecological.”

To that end, we are witnessing the Anthropocene’s transition from a robustly disputed interdisciplinary idea to one that is permeating the public sphere. We see this in special Anthropocene issues of *The Economist*, *Nature*, and *The Smithsonian*. We see it in the way bloggers, filmmakers, public intellectuals, and curators are trying to reimagine, through the prism of the Anthropocene, what geographer Doreen Massey calls “the ancient manoeuvrings of life and rock.”

To give the Anthropocene a public resonance involves choosing objects, images, and stories that will make visceral those tumultuous geologic processes that now happen on human time scales. With this in mind, the [Anthropocene Cabinet of Curiosities Slam](#) has assembled a lively array of object-driven stories.

The work on display here seeks to give immense biomorphic and geomorphic changes a granular intimacy. Collectively, these Anthropocene stories have the power to disturb and to surprise, hopefully goading us toward new ways of thinking and feeling about the planet we have inherited and the planet we will bequeath.

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Featured image is Jason deCaires Taylor's underwater sculpture "Anthropocene." Photograph by Jason deCaires Taylor.



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1. Note: Stewart Brand originally said, "We are as gods and might as well get good at it" (1968) which he changed to: "we are as gods and must get good at it" (2009). Quoted Diane Ackerman,

*The Age of Humans* p. 152