

Anthropocene, Deep Time and Geological Posthumanism¹

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I assume you've invited me to this roundtable because I represent a strand of contemporary theory or philosophy called "critical

¹ This is an edited and annotated version of my contribution to a roundtable organised by Trevor Norris and the Posthumanism Research Institute at Brock University, entitled "Competing and Contrasting Conceptions of the Anthropocene: In Search for Unity", and held on Monday 26 January 2026. The other roundtable participants were Martin Head (Palynologist and stratigrapher at Brock University), Francine McCarthy (Micropaleontologist at Brock University) and Hannah Spector (Independent Scholar).

The rationale put to the participants was the following:

The "Anthropocene" is a term first coined in 2001 to denote a particular geological era characterized by post WWII 'Hockey Stick' shaped increases in many key environmental and industrial indicators, a Great Acceleration or Golden Spike. This new epoch in the earth's Geological Time Scale indicates that we're not just interacting with our environment but changing it in unprecedented manner. This is an era in which human activities rather than natural processes have come to dominate the planet in categorically — rather than incrementally — distinct ways, bringing about an end to the 11,700 year Holocene era (Cf. Simon Turner et al., "What the Anthropocene's critics overlook – and why it really should be a new geological epoch", *The Conversation* (12 March 20224); available online at: <https://theconversation.com/what-the-anthropocenes-critics-overlook-and-why-it-really-should-be-a-new-geological-epoch-225493>).

Crawford Lake, on Niagara Escarpment just north of Brock University, has been selected as the site for research because it is small but deep, which limits circulation and allows for greater consistency and clarity in sedimentary accumulation, a well-preserved global record of organic material and atmospheric change. This makes it one of the most useful and unique locations to study the Anthropocene on the planet (cf. N.a., "International experts choose Brock-led proposal for Crawford Lake as site for proposed Anthropocene", *The Brock News* (11 July 2023); available online at: <https://brocku.ca/brock-news/2023/07/international-experts-choose-brock-led-proposal-for-crawford-lake-as-site-for-proposed-anthropocene/>).

But what exactly is the Anthropocene, and perhaps most controversially, when did it begin.

The Anthropocene Working Group (AWG) established in 2009 invested whether the term "Anthropocene" should be adopted to refer to our current geological era. Following 15 years of deliberation, in March 2024 the AWG decided against adoption of the term. Why did the Group not adopt the term and what are the implications?

Its potential adoption concerns not just conceptual clarification and more effective scientific categorization, but will impact decisions regarding further human actions. It's a meta or self-reflective concept in that sense.

But like flows and currents in the natural world, this word was not easily confined; it has entered popular and academic discourse beyond the natural sciences. Even if not adopted, it may serve as an important and helpful descriptor for understanding our times and our potential future. Even if not adopted, these processes are likely to continue unabated, compounded by new and unanticipated processes. Though perhaps the most political fraught and politically important term for any geological era, countless more nebulous terms compete:

Capitalocene, technocene, Westernocene, plantationocene, chthulucene, polycene.

The emergence of the Anthropocene, even if an unadopted Geological term, indicates the importance of a new Posthuman worldview that emphasizes our entanglements with —rather than separation from —the natural world, prioritizing a conception of the human being that doesn't seek to master or remake nature.

There is something categorically unique about our times. We live and move and have our being in a world increasingly of our own making, reflecting ourselves and our activities back to ourselves and obscuring what precedent and what is not man made. Arendt calls this 'worldly' or 'earthly' alienation, motivated by a "resentment towards the given". In other words, the Anthropocene is emerged because of certain human values, and impacts the world in which humans live.

posthumanism”,² and because I have expressed myself on the relationship between posthumanism and deep time.³

What does critical posthumanism mean? It means a way of thinking politically, ethically and critically about what is wrong with humanism and anthropocentrism and how to change or inflect them at a time when “we” (but who exactly is this “we”?) are caught in between radical climate change and accelerated technoscientific development (what one might call “the posthumanism-Anthropocene-climate change nexus”). So, I guess this is what the Anthropocene stands for in this context: an impossible choice between current ecological and technological challenges.

I should add that while *posthumanism* is often confused with *transhumanism* and perceived as a more or less science fictional discourse focused on the imagination of posthuman futures that involve some form of technological enhancement, artificial intelligence or space travel, and so on, *critical* posthumanism is engaging, precisely, *critically* with the desire to transcend the so-called “human condition” that underpins both traditional humanist *and* transhumanist fantasies of disembodiment, dematerialization and of overcoming “our animal bodies” or our so-called “nature”.

In stark contrast, *critical* posthumanism, rather, is about the ongoing deconstruction of the underlying humanist, anthropocentric, speciesist and exceptionalist values that inform humanism including its contemporary transhumanist version with its techno-utopian and post-biological desires. This is why critical posthumanism emphasises the material and biological but also technical “entanglement” between human and nonhuman life and technology at a planetary

² For more on critical posthumanism and its background see my website at: <https://stefanherbrechter.com>.

³ Cf. Stefan Herbrechter, “Posthumanism and Deep Time”, in Stefan Herbrechter et al., eds., *The Palgrave Handbook of Critical Posthumanism* (Cham: Springer, 2022), pp. 29-54.

scale – which can be understood as a (technically inflected) form of biophilia or, in the geological context of planetarity and deep time, as a kind of geophilia.⁴

The popularisation of the term “Anthropocene”, however, is somewhat of a mixed blessing for critical posthumanism because, on the one hand, it could be seen as further illustration of why moving towards a postanthropocentric ethics, politics and way of thinking in general is so important and urgent. On the other hand, however, it also plays into the hands of transhumanist desires of human grandeur in naming an entire geological epoch after the “Anthropos”, this arch-humanist, universalist, Western phantasm of an essential “humanity”, which apparently is now so powerful that its impact can decide over survival or extinction of life on this planet.

From the point of view of a *critique* of the latter, the “human-supremacist” point of view, the adoption of the Anthropocene notion is compromised by a “suspicious timing” – namely: just when the human “Anthropos”⁵ has been almost successfully “decentred” (by feminism, postcolonialism, queer studies and other critical discourses including posthumanism), the Anthropocene comes along and threatens to radically “re-centre” it.⁶ From this, more suspicious, angle one might therefore ask: what is the *ideological* function of the term “Anthropocene”? Is this the term that attempts to hide transition from (modern, capitalist, neoliberal) biopower to an even more fearsome “geopower” to prepare the next phase of

⁴ See Jeffrey Jerome Cohen’s work on “geophilia” in *Stone: An Ecology of the Inhuman* (Minneapolis: University of Minnesota Press, 2015) and Elizabeth A. Povinelli on “geo(nto)power” in *Geontologies: A Requiem to Late Liberalism* (Durham: Duke University Press, 2016).

⁵ On the history of the “anthropos” see, for example, Christophe Bonneuil and Jean-Baptiste Fressoz, “Who is the anthropos?”, *The Shock of the Anthropocene* (London: Verso, 2016), pp. 65-96.

⁶ Cf. Clive Hamilton’s take on a “new anthropocentrism” in his *Defiant Earth: The Fate of Humans in the Anthropocene* (Cambridge: Polity, 2017).

technocapitalist extractivism (now at a planetary, interstellar or cosmological level)?⁷

One can maybe demonstrate this ambivalent role the Anthropocene plays most clearly by looking at the two very different regimes of “responsibility” that seem to arise from it: on the one hand, a bio-ecological responsibility for the protection of life on this planet; on the other, a regularly invoked techno-cosmological responsibility for the survival of “intelligence” and its continued “evolution” or “progress”, through intensified technological development on this planet or indeed beyond it – a survival so precious that it would even sanction the jump from biological to technical evolution of humans into their successor species (AI) at the expense of everything else.⁸

Institutionally, the Anthropocene discussion is having is that by taking on questions concerning biopower and geopower, extinction, climate change and technological development – questions that used to be the exclusive domain of the “natural”, bio- and geo- or Earth sciences – the contemporary critical (post)humanities⁹, or the environmental humanities as well as the social sciences, have witnessed what one might call a “geological turn” (one of many turns and “wars” in recent decades).¹⁰ This can be seen in the fact that they have embraced the

⁷ On the notion of extractivism see Philip John Usher, *Exterranean: Extraction in the Humanist Anthropocene* (New York: Fordham University, 2019).

⁸ For a detailed critique of transhumanism see Michael Hauskeller, *Mythologies of Transhumanism* (Cham: Palgrave/Springer, 2016).

⁹ On the critical posthumanities see Rosi Braidotti et al., “A Theoretical Framework for the Critical Posthumanities”, *Theory, Culture & Society* 36.6 (2019): 31-61.

¹⁰ Most notably and recently the “nonhuman turn”, cf. Richard Grusin, ed., *The Nonhuman Turn* (Minneapolis: University of Minnesota Press, 2015); on the “geological turn” see Christophe Bonneuil, “The Geological Turn: Narratives of the Anthropocene”, in Clive Hamilton, Christophe Bonneuil and François Gemenne, eds., *The Anthropocene and the Global Environmental Crisis: Rethinking Modernity in a New Epoch* (London: Routledge, 2015), pp. 17-31; see also Kathryn Yusoff, *Geologic Life: Inhuman Intimacies and the Geophysics of Race* (Durham: Duke University Press, 2024).

notion of “deep time” and fostered what one might call a “geological imaginary”.

One could therefore speak of a “geologisation” of the kind of critical posthumanism that now operates in large parts of the humanities and social sciences.¹¹ It is in fact this “deep time” perspective that forms an increasingly important antipode to the techno-utopian and techno-centred figure of the posthuman as envisaged by transhumanists. In fact, ironically, there seems to be something “cathartic” and meditative about humbly embracing deep time, as a kind of deceleration and an opportunity for much needed human self-reflection.¹²

Placing the human within a deep-time geo-political and geo-ecological framework in the context of the Anthropocene, global climate change and extinction threats may therefore allow for a new deep ecological thinking and new forms of postanthropocentric narrativisations, or “geo-stories”. These deep-time narrativisations are able, mainly through “speculation”, to provide alternative and differential accounts of both deep pasts and deep futures, and to diversify scenarios of ancestrality and extinction.¹³

In this sense, the Anthropocene can be seen as a troubled “present”, haunted both by uncertain origins and uncertain futures. In other words, what it means to be human today is being caught between two “world-without-us-scenarios”,¹⁴ the deep prehuman time of

¹¹ See my “Posthumanism and Deep Time”, *op. cit.*

¹² Cf. for example Vincent Ialenti, *Deep Time Reckoning: How Future Thinking Can Help Earth Now* (Cambridge: MIT Press, 2020).

¹³ See my *Before Humanity: Posthumanism and Ancestrality* (Leiden: Brill, 2023), where I engage with Quentin Meillassoux’s notion of ancestrality in the context of object-oriented-ontology and the critique of (Post-)Kantian “correlationism” in *After Finitude: An Essay on the Necessity of Contingency* (London: Continuum, 2008). See also Roman Krznaric, *The Good Ancestor: A Radical Prescription for Long-Term Thinking* (New York: The Experiment, 2020).

¹⁴ See Alan Weisman, *The World Without Us* (London: St. Martin’s Press, 2007).

planetary history and the anticipated posthuman time when some alien future geologists might be discovering the sedimentational impact of our species (an idea that extends the notion of “fossilisation” into a humanless future, a kind of wondering about “our” anticipated human legacy readable through our “technofossils”).¹⁵

This geo-imaginary scenario, however, could nevertheless be interpreted as somewhat “melancholic”, and maybe as a little too comforting, since it represses the inter- and intra-species differences that the Anthropocene produces and exploits, and instead promises or even anticipates some kind of exculpation of humans by “arguing ourselves out of the picture”, where, in fact, taking responsibility *now* would probably be the right thing to do.¹⁶

The peculiar “future-orientation” the discipline of geology acquires through the Anthropocene¹⁷ as well as the cultural “geologisation” effects this has caused more widely can be described, in Marija Grech’s words, as the “*future-retro-vision* of our times: a vision of the

¹⁵ The geologist and paleoanthropologist Jan Zalasiewicz frequently uses the trope of the future geologist looking back at the Anthropocene and humans’ geological traces, notably in *The Earth After Us; What Legacy Will Humans Leave in the Rocks?* (Oxford: Oxford University Press, 2008), or *The Planet in a Pebble: A Journey into Earth’s Deep History* (Oxford: Oxford University Press, 2010); on the notion of “technofossils” and their “futurity” see David Farrier, *Footprints: IN Search of Future Fossils* (London: 4th Estate, 2020); see also Sy Taffel, “Technofossils of the Anthropocene: Media, Geology, and Plastics”, *Cultural Politics* 12.3 (2016): 355-375.

¹⁶ Cf. all those approaches that aim to substitute the “Anthropocene” with a more socially just or critical notion like the “Capitalocene”, cf. for example Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), Jason W. Moore, ed., *Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism* (Oakland: PM Press, 2016).

¹⁷ Cf. for example Jeremy Davies, “Geology of the Future”, *The Birth of the Anthropocene* (Oakland: University of California Press, 2016), pp. 69-111.

present that is haunted by the future memory of itself as past”.¹⁸ In other words, “The Anthropocene paradigm is structured by a gesture of future-retro-vision in which the present functions as the spectral past of a speculative future”.¹⁹ It is this “ghosting of the human”, as I would call it, that needs to be unmasked as ideological and resisted.

Why? Because of the political nature of the very specific “construction of the future” this ideology hides, and which is all about resource allocation, based on an apparent “choice” between several equally futurological (and utterly resistible) scenarios: the degrowth/rewild option; the geoconstructivism/geo-engineering/technosphere vision; or the interstellar/exoplanet phantasm.

More concretely, the political challenge the idea of the Anthropocene poses lies in how to reconcile universalist and particularist claims as to what kind of responsibility humans (at an individual or singular level) and humanity (at a collective or species level) have and how to act on these.²⁰ Critical posthumanism proposes that we *both* individually *and* collectively start by accepting the social, biological, ecological and geological reality of entanglement with the nonhuman, which should be the starting point for working towards a multispecies planetary justice, a form of geo-cosmopolitanism leading towards what Timothy Morton has called “humankind” based on solidarity with nonhumans.²¹

¹⁸ Cf. Marija Grech, *Spectrality and Survivance: Living the Anthropocene* (Lanham: Rowan & Littlefield, 2022), p. 5.

¹⁹ *Ibid.*, p. 6.

²⁰ On the question of social justice (i.e. “intra-species inequalities”) see, for example, Andreas Malm and Alf Hornborg, “The geology of mankind? A critique of the Anthropocene narrative”, *The Anthropocene Review* 1.1 (2014): 62-69.

²¹ Cf. Timothy Morton, *Humankind: Solidarity with Nonhuman People* (London: Verso, 2017) and my *Solidarities with the Non/Human, Or, Posthumanism in Literature* (Leiden: Brill, 2025).

In other words, the positive effect the notion and the reality of the Anthropocene *could* have is that they might eventually lead to a “negative postanthropology”²² capable to deal *both* with the *unexceptionality* (that is the plurality, difference and entanglement) of humans, as well as and *at the same time* with their *exceptionality* (humanity’s undeniable achievements and its potential cosmological importance, in the absence of intelligent alien life forms).

It is this fundamental ambiguity and uncertainty the Anthropocene notion harbours that also explains the lack of agreement on whether our aim has to be, to learn to die,²³ to thrive in²⁴ or to leave the Anthropocene behind as quickly as possible,²⁵ because it already raises another spectre, namely that of the Post-Anthropocene, and whether we might in fact have already entered it, or else what we might have to do to reach it.²⁶

²² See my “Critical Posthumanism and Negative Anthropology”; available at: <https://stefanherbrechter.com/wp-content/uploads/2025/01/CPH-and-Negative-Anthropology.pdf>

²³ Cf. Roy Scranton, *Learning to Die in the Anthropocene; Reflections on the End of Civilization* (San Francisco: City Lights Books, 2015).

²⁴ Cf. Gerasimina Theodora Zapanti and Skanavis Constantina, “Thriving in the Anthropocene: Building Community Resilience to Combat Climate Change”, *Proceedings of the World Conference on Climate Change and Global Warming* 1.1 (2024): 29-43.

²⁵ Cf. for example European Environment Agency, “Exiting the Anthropocene? Exploring fundamental change in our relationship with nature” (12 August 2025); available online: <https://www.eea.europa.eu/en/analysis/publications/exiting-the-anthropocene>.

²⁶ Cf. Claire Colebrook’s use of “post-anthropocene” in *Death of the PostHuman: Essays on Extinction*, vol. 1 (Ann Arbor: Open Humanities Press/University of Michigan Press, 2014) and her “We Have Always Been Post-Anthropocene: The Anthropocene Counterfactual”, in Richard Grusin, ed., *Anthropocene Feminism* (Minneapolis: University of Minnesota Press, 2017), pp.1-20.

On the basis of this sketch I'd like to come back to the questions we were put on the brief for this roundtable and provide some very short answers, also by way of a summary:

1. Who "owns" the term "Anthropocene"? What does it refer to? What is gained or lost by its wide usage and adoption beyond the natural sciences? What exactly is controversial about it?

By calling this new geological epoch or period "Anthropocene" there was always going to be competition between the sciences and the humanities, experts, media and the wider public. Its controversy lies in its political nature (i.e. what to do with differences between humans and nonhumans and with differences within or between humans and their respective implications in "anthropogenic" climate change and its geological effects), and whether in fact it is used as an abdication or as acceptance of human responsibility.

2. Should the meaning of the Anthropocene be restricted to 'overwhelming human impact'? The adoption of agriculture, the industrial revolution? Dating is complicated.

The meaning of the Anthropocene (like that of any other linguistic concept by the way) cannot be restricted or "policed" (even by precisely dating it) because it puts into question the entirety of human history, prehistory and posthistory, i.e. the future of "mankind". It also raises the question of hominization more generally, "our" origins, futures and the role of technology in human development or evolution – all highly contested issues among scientists, humanities scholars and the "general public".

3. What does it mean to be human if the human being is something that brings about these processes – and yet seems less able to contain what it creates or brings into the world? Are any of these trends reversible?

The reason why the Anthropocene is controversial and why its meaning cannot be controlled by geologists is that it also reopens the

question of philosophical anthropology (Kant's fourth question, subsuming the first three: what is the human?).²⁷ It opens the door to both a new humility and a new hubris – the techno-hubris of the sorcerer's apprentice who, finally, it seems is about to become master (or a new Prometheanism),²⁸ and the "eco-humility" of embracing the new postanthropocentric "(post)human condition" of entanglement.²⁹

4. To what extent did Humanism help to bring about this time period?

If we understand humanism solely as anthropocentrism, or the idea of human perfectibility and exceptionalism, then humanism, especially in its contemporary *transhumanist* version, is what needs to be met with deep and continued suspicion, hence the need of the kind of *strategic* postanthropocentrism that critical posthumanism advocates. However, I think humanism is also something else. It is not only a world view and a system of values but also a repertoire of important cultural technologies, maybe best captured in their original ancient separation between the *trivium* (grammar, logic, and rhetoric – central to the arts and humanities, language, writing and literacy) and the *quadrivium* (arithmetic, geometry, music, and astronomy – out of which developed the sciences). Impossible to "do away" with this tradition and its achievements even if one wanted.

5. Does the Anthropocene also herald—or even necessitate—the arrival of a new "transhuman" that is better able to live within

²⁷ Kant's famous four fundamental questions for philosophy are: What can I know? What should I do? What can I hope? What is man?

²⁸ On a critique of prometheanism, following Günther Anders, see Christopher John Müller, *Prometheanism: Technology, Digital Culture and Human Obsolescence* (London: Rowman & Littlefield, 2016).

²⁹ Cf. Braidotti, *The Posthuman* (Cambridge: Polity Press, 2013) and my *(Un)Learning to be Human?* (Leiden: Brill, 2024).

such an artificial world and contend with its increasingly inhospitable features?

Given the political nature of the Anthropocene outlined, it will become more and more important to highlight the dangers of technological solutionism to the crisis the Anthropocene stands for (i.e. the combined risks of geo-engineering, ecomodernism, or the idea of an autonomous “technosphere”)³⁰ given the hegemony of the technoscientific, neoliberal, globalised, capitalist system that most recently has been transforming itself into a system based on a power alliance between US military, geopolitics, social media platforms, AI, big-tech and big-data, with the aim of dominating the next phase of extractivism (i.e. data-extractivism and the extraction of rare earths and other “natural” resources). All this is happening to prepare the next “space race” and the enormous resources this will need to support in what some, in fact, have called the Trumpocene,³¹ with its return to openly aggressive geopolitics at the expense of *all*, humans and nonhumans, and their *only* habitat.

³⁰ On the notion of the “technosphere” see e.g. Peter Haff, “Technosphere”, in Nathanaël Wallenhorst and Christoph Wulf, eds., *Handbook of the Anthropocene: Humans Between Heritage and Future* (Cham: Springer, 2023), pp. 537-541; for a critique of geo-engineering see Frédéric Neyrat, *The Unconstructable Earth: An Ecology of Separation* (New York: Fordham University Press, 2019). On ecomodernism and its radically anthropocentric rational see the “Ecomodernist Manifesto” available online at: <https://www.ecomodernism.org/manifesto-english>.

³¹ Cf. Claire Colebrook, “Slavery and the Trumpocene: It’s not the End of the World”, *Oxford Literary Review* 41.1 (2019): 40-40. Colebrook argues that rather “panic” at the combination of “post-truth/fake news” politics in the era of Trumpian politics and the widespread “end of the world”, “we might think that the end of the world, fake news, alternative facts and weak relativism are precluding us from contemplating extinction, both the thousands of extinctions upon which the world is built, and extinction to come” (p. 46).

6. If there is merit in restricting the Anthropocene to its geological meaning, what other term(s) might be used for the broader human presence on our planet?

The proliferation of the suffix -cene³² shows that we are way beyond the “restrictive use” phase of the Anthropocene. In fact, it shows the impossibility of a consensus about what the “current situation” actually *means* and what kind of action therefore would be required. It is a reflection of the radically political and conflictual situation as well as the extreme danger and precarity that humans, nonhumans and their environments now find themselves in.

³² Cf. the list compiled by Mark Bould in his *The Anthropocene Unconscious: Climate Catastrophe Culture* (London: Verso, 2021), ebook, n.p.:

the Accumulocene	the Novacene
the Andropocene	the Oliganthropocene
the Agnotocene	the Phagocene
the Anthrobscene	the Phronocene
the Capitalocene	the Plantationocene
the Carbocene	the Planthropocene
the Carnocene	the Polemocene
the Chthulucene	the Proletarocene
the Corporatocene	the Pyrocene
the Econocene	the Suburbocene
the Eremocene	the Technocene
the Eurocene	the Thalassocene
the Homogocene	the Thermocene
the Homogenocene	the Theweleitocene
the Idiocene	the Traumacene
the Manthropocene	[the Trumpocene]
the Misanthropocene	the Urbocene
the Naufragocene	the White (M)anthropocene
the Necrocene	the White Supremacy Scene

etc.