

We suggest that clear definition of the term best reflects its reality as a distinct phase of Earth's history. This may also help rather than hinder effective stewardship of the planet. Discussion of potential formalisation (a related but separate issue) is set to begin this year, as the working group passes on its findings to the Subcommission on Quaternary Stratigraphy, prior to consideration by the International Commission on Stratigraphy.

Acknowledgements

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Reference

CRUTZEN, P. & E. STOERMER. 2000. The 'Anthropocene'. *Global Change Newsletter* 41: 17–18.

Re-evaluating the Anthropocene

Simon Dalby*

Perhaps the most obvious point about the Anthropocene debate is the one that gets lost most frequently, precisely because it is the most obvious. Paul Crutzen's now famous outburst in 2000 (see Crutzen & Stoermer 2000) stating that we do not live in the Holocene anymore was made in part because he was grappling with the question of the enormity of the anthropogenic transformations of the Earth system. It matters that he formulated the term to indicate the scale of transformation in geological language.

The scale and profundity of what is happening, and its probable long-term impacts, are larger than is usually understood in conventional environmental terms—even with the qualifier 'global' added in—hence the need to specify matters in terms drawn from a science that explicitly thinks on this scale. It matters that this is a geological, not an ecological, biological, geographic or an historical, term, even though it does connect with the deep history discussion.

Yes, Anthropocene has become a term in pop culture, as fans of the San Diego band Cattle Decapitation will have noted in their recent album title, '*The Anthropocene Extinction*'. But much more importantly, the Anthropocene has become a political term, one that is argued over at length in various non-scientific media. This point is key to the conclusion of Todd Braje's judicious and succinct summary of the Anthropocene debate, but not one he draws out in any detail.

Attempting to grapple with the big questions of human futures, and who decides what kind of planet future generations of humans will live on, and with what other species, needs

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a vocabulary suitable to the task. Reorienting our perception of ourselves as geological scale agents seems a helpful step in that direction, although there are no guarantees that it will work effectively in political discourse.

Environment brings with it popular assumptions of a separate nature ‘out there’, somewhere vaguely beyond humanity. The Anthropocene collapses the dichotomy and forces us to understand that human decisions matter in terms of the long-term future in more profound ways than common understandings of an external ‘given’ nature usually grasp.

In simple, non-technical terms the Anthropocene also has the advantage, if linked to a start date related to the steam engine, of emphasising that humans are quite literally turning rocks into air to power contemporary urban life. Burning fossil fuels is directly reversing geological processes of carbon dioxide sequestration. Hence the concern with fossil fuel combustion as the primary cause of anthropogenic climate change. Discussing this under the rubric of a new geological era, rather than as an environmental problem, focuses attention directly on the appropriate causalities.

Yes, humans have been exterminating species and burning things including fossil fuels on a small scale for a long time. Smelting has produced new forms of metamorphic ‘rock’ material too, for this is what metallurgy does in geological terms. Radical disruptions of landscapes and trophic systems are probably causing a sixth planetary extinction event. And yes, 1945, with the appearance of artificial radioactive isotopes in the sedimentary column, is probably a better golden spike than the 1780s. Hence Braje’s composite term Holocene/Anthropocene.

But the key point of the stand-alone term ‘Anthropocene’ emphasises the direct connection between burning fossil fuels and greenhouse gas emissions. This is the theme for immediate political attention even if the geological golden spike is not an exact fit. Focusing on how the steam engine facilitated the rapid expansion of European colonisation, and subsequently a global economy with the consequent disruption of ecosystems worldwide, links the geological process of fossil-fuel use directly into the larger story of planetary transformation.

This focus on the motive forces of transformation also links directly to Braje’s key prospective questions of how the rich and powerful of our species will decide how to configure the next phase of the Anthropocene. Will it be a relatively stable system, a sustainable earth, facilitating human and ecosystem flourishing? Or will the rich and powerful decide to continue to burn fossil fuels, resulting in accelerating change and potentially disastrous (for humanity and many other species) runaway positive feedbacks leading to a very different world?

Thinking in geological terms clarifies these questions very effectively. Geologists and archaeologists may not need the term ‘Anthropocene’, but citizens could find it very useful indeed in the next few years when crucial decisions about the future are being discussed and profound decisions being made.

Reference

- CRUTZEN, P. & E. STOERMER. 2000. The ‘Anthropocene’. *Global Change Newsletter* 41: 17–18.