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"Notes on Mineral Evolution: Life, Sentience, and the Anthropocene"

Gillen, Paul

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Mineral evolution (ME) is a geologic paradigm postulating that Earth's minerals formed sequentially and have interacted with life forms for billions of years. The evolution of Earth and its minerals is therefore entangled with the evolution of life. This "Provocation" ponders the implications of ME for the environmental humanities in general and for Anthropocene narratives in particular. ME relies on non-Darwinian evolutionary principles. In common with other branches of Earth system science, it also destabilizes prevailing ontological categories. Life becomes more material, matter more alive. This essay suggests that the development of sentience in the Phanerozoic eon exerted an emergent, autonomous influence on the interaction of minerals and life. Conscious human agency and its effects on planetary transformation are therefore the culmination of a very long process. However, the control that our conscious agency can exercise upon planetary transformation is very limited even over human time scales, let alone geologic ones. (Text from author's abstract)

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