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Out with the Anthropocene and in with Anthroposphere: Shifting from temporal to spatial understanding of human forcing of the Earth system

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Over the past 15 years the Anthropocene has gained significant attention within the geosciences, the humanities, the social sciences, and the media. The Anthropocene discourse has led to useful interdisciplinary discussions and has caused a wide arrange of scholars to reconsider humans' role in the Earth system. Ironically, the Anthropocene discourse has had opposite affects in how different disciplines view humans and nature. On one hand, geoscientists now acknowledge that humans are a geologic driving force rather than playing an insignificant role in geologic process. On the other hand, humanists/social scientists have adjusted their understanding of humans and nature in the opposite direction, by becoming less anthropocentric; no longer can it be thought that humans dominate nature. The Anthropocene Working Group, the group charged with formalizing the geologic time frame for the Anthropocene, has stated that the Anthropocene should be useful not only for the geosciences but also for interdisciplinary fields. However, the geosciences and the humanities/social sciences are defined by different methods and motivations, and each discipline is focused on divergent aspects of the Anthropocene. A geologically defined Anthropocene would officially recognize man's impact on the Earth system; however, a stratigraphically defined Anthropocene could negate many of the humanities/social science perspectives, and it might not meet the aspirations that a broad range of Anthropocene scholars seek—aspirations that perhaps matter more to mitigating the effects of humans on Earth's system. Shifting from a temporally-based Anthropocene to a spatially-based Anthroposphere may enable a more fruitful interdisciplinary interaction.

Part of the misalignment between the geosciences and the humanities/social sciences is the difference between temporal and spatial frames of reference. The formalization of the Anthropocene by geoscientists focuses on temporality. Whereas many in the humanities and social sciences are thinking more about causes, impacts, and implications at the global spatial-scale. Thus, it may be more useful to shift the focus to the more spatially relevant Anthroposphere. The Anthroposphere is part of the Earth system. It intersects spatially with the hydrosphere, the atmosphere, the biosphere, the cryosphere, and the surface of the lithosphere; and it operates on a corresponding temporal-scale, rather than deep time of the geologic timescale.

The realizations about human interactions with nature mentioned in the first paragraph become more obvious in the spatial relation where the Anthroposphere intersects with the other spheres of the Earth system. An example of a shift in reference can be seen when analyzing globalization and climate change. The deep time scale does not allow us to see the connections between these two processes. Whereas the shorter time scale combined with spatial attentiveness enables us to see the complexly ramified connections between the two: when we map how globalization plays out unevenly across the world, we see commensurate changes in climate. This more spatially-oriented thinking enables a more nuanced view of how, when, where, and why climate change has occurred; as such, this spatially-oriented thinking might also enable more fine-tuned solutions for mitigation and adaptation than purely temporal—particularly deep-temporal—thinking has.