

**Beyond Infrastructures: (Un)built Environments in the Anthropocene. University of Vienna,
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Imagining (and Imaging) the Planet: Earth Observation Infrastructures and Anthropological Opportunities

Abstract

As technologies such as satellites are increasingly imagined as tools for managing planetary futures, they generate new forms of infrastructural imagination that go beyond their current functionality. This paper offers a brief introduction to how anthropology might engage with satellite-based Earth observation (EO) infrastructures - not as complete or fixed systems, but as speculative and evolving fields of intervention that promise new opportunities.

A particularly telling example is the growing interest in assessing shades of biodiversity all over the world, or the evaluation of carbon sink potential at small scale that could support future carbon markets and 'nature-based solutions' to climate change. While some of these and other applications remain technically and politically unresolved (e.g. due to image resolution constraints or technical limitations), they illustrate how infrastructures can operate on promises, uncertainties and imagined capabilities long before implementation.

Rather than reporting findings, this paper opens up a field of inquiry: How can we ethnographically engage with infrastructures that are still taking shape? What kinds of futures are encoded in their designs? And how might anthropologists reflect on their own practices of observation in light of infrastructures that seek to observe the earth from afar? Based on an assessment of the interplay and a discussion of what is possible and what isn't by observing from space, this paper outlines different ideas about how anthropologists might approach infrastructures and services that are not yet built, partially built, or only imagined at a planetary scale.

Keywords: Earth Observation, Speculative Infrastructure, Anthropology of Technology, Planetary Imagination