Knowing {Earth}, {Knowing} {Soil}: {Epistemological} {Work}... - {Google} {Acadêmico}

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ABSTRACT ORIGINAL

Soil carbon sequestration and regenerative agriculture have emerged as technologies of eco-social optimism. In the face of the dire warnings of “peak nitrate” and “peak phosphorus” on the one hand and climate change on the other, soil’s capacity to store carbon, reverse climate change, regenerate itself, and breathe life into agricultural landscapes has been presented as something of a revelation (Kearnes and Rickards 2017; Kon Kam King et al. 2018; Granjou and Salazar 2019). Marshaled as a response to a raft of contemporary sociopolitical and environmental problems, the retention and long-term sequestration of soil carbon and the promise of regenerative agriculture encode soil and farming with political atmospherics that are simultaneously speculative and hopeful (Krzywoszynska 2019a). At the same time, the management of soil carbon concentrations is increasingly being depicted in technoscientific terms. In this guise, soil carbon sequestration is cast as an earthly technology, overlain by the technics of remote visualization, greenhouse gas accounting, and scenario modeling. Soil carbon sequestration is heralded as one of a number of strategies for directly manipulating environmental and climatic systems in response to global warming, what Tim Flannery evocatively terms “third-way” technologies designed to “recreate, enhance or restore the processes that created the balance of greenhouse gases which existed prior to human interference, with the aim of drawing carbon, at scale, out of Earth’s atmosphere and/or oceans”(2015: 151). Agricultural soil carbon sequestration simultaneously features as a core rationale for the emergent paradigm of “smart farming,” which harnesses environmental sensing technologies and automated management systems to enable more efficient, sustainable, and profitable farm outcomes and related market opportunities (Rossel and Bouma 2016). This quintessentially modernist take on carbon sequestration and agriculture is imbued with extremely different language and images to that of “alternative” regenerative agriculture, but shares with it a promissory logic and similarly high hopes for a brighter future.