

Meaningful clearings: human-ant negotiated landscapes in nineteenth-century Brazil

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Abstract

Humans live in (and thereby alter) environments as much as they and their activities are themselves the environment of other living beings. As selves, these beings interpret what humans do and act accordingly, producing historically consequential environmental transformations. In this article, I explore the conflicts between people and *Atta* leafcutter ants over the meaning of anthropogenic deforestation in nineteenth-century Brazil. As human agricultural settlement advanced the ants followed in its wake harvesting leaves, flowers, fruits, and stems from crops to supply their own underground fungus gardens. How have Brazilians dealt with being the targets – rather than the drivers – of socially organized devastation? How have the responses to leafcutter exploitation helped shape Brazilian society during the critical period of post-emancipation nation-building? By analyzing legislation, travel journals, agricultural manuals, naturalists' accounts, newspapers, and other historical sources against the backdrop of modern scientific studies, I show how leafcutter proliferation has fueled social innovations and rearrangements such as technical ingenuity, legal-administrative practices, parliamentary discussions, and even local electoral arenas. Human responses to leafcutters unfolded in part as science and technology, as both private individuals and the government struggled to find ways to “exterminate” what they thought of as an “enemy.” Notwithstanding their ineffectiveness, the nineteenth-century ingenious, often extravagant gadgets were networked mobilizations of various elements of the biosphere, the technosphere, and the sociosphere – chemicals, metal tools, enslaved people, and underground morphology – that put the world in motion in response to deforestation and insect infestation. Other responses were legislative and political-administrative, as the social anxieties prompted by mounting perceptions of infestation progressively pushed ant management efforts toward the state's orbit. In Brazil as elsewhere, the spatial control of domesticated mammals has been a central locus of institutional modernization throughout the nineteenth century, especially in urban contexts. Leafcutter ants were part of this process, but in a more complex way due to their size, ecosystem engineering capabilities, and the ambiguity of their legal status: though they were not, unlike horses or pigs, owned by anyone as “living capital,” their nests were often located on private property, making them private liabilities with potential externalities. I conclude by briefly discussing the importance of considering what I call ‘cross-species misunderstandings,’ and more generally how an explicitly semiotic approach substantiates environmental historians' claims about addressing human-nonhuman negotiations. No matter how symbolically-suffused human projects are, once materialized in the landscape they become part of a more-than-human, negotiated public sphere, and thus susceptible to unexpected iconic associations. This effortless, unintended propagation of spatial form resets the possibilities of what Paul Vidal de La Blache has pioneeringly called “cohabitation,” or the “use in common of a given area.” Nonhuman resignifications of anthropogenic environmental interventions tilt ecosystem change trajectories in such a way as to destabilize symbolic expectations and understandings, with consequences that can resonate through the most diverse realms of human societies, including the distribution of power. This semiotic friction, therefore, is historically productive – it shapes the conditions of landscape-making and thus of the human experience of being alive on this planet.

Key-words: Deforestation; Leafcutter Ants; Nineteenth-Century Brazil; Human-Animal Relations.