Timothy LeCain

Hybridity, Techno-Symmetry, and Bio-Indicators:
A Comparative History of Landscape, Culture, and Technology in Japanese and American High Modernist Copper Mining

LeCain's project is the culmination of a three-year NSF-funded collaborative research effort with Professor Brett L. Walker. The Ashio site in Japan and Anaconda site in the US have provided a nearly ideal opportunity for a comparative international research project into the environmental history of large-scale copper mining and smelting. Despite being located in radically different cultural and social settings, the history of the two mine sites demonstrates striking engineering and technological similarities. In a sense, this project is a sort of controlled historical experiment that permits close comparison of two very similar technological complexes in order to highlight and explain the culturally and socially determined constructions of—and reactions to—engineered landscapes, industrial technology, and their environmental and social consequences.

The Ashio and Anaconda mines might best be viewed as hybridized "technological environments," a framing that avoids tidy distinctions between the natural and artificial or the organic and inorganic. Instead of viewing the sub-terrestrial mines as the antithesis of the terrestrial environment of life, as has often been the case, the book will argue it is more useful to think of the mine as an environmentally *simplified* world. The underground world, while perhaps inorganic in many respects, is treated as no less natural than the aboveground world; nor is the work performed there somehow less natural than the technologically sophisticated work of the farmer or silkworm grower. The project will avoid simplistic dichotomies that have often encouraged historians to view mining as an unnatural and thus bad or destructive pursuit, in contrast to farming or silkworm raising, which are often simplistically viewed as natural and thus good and constructive. Rather, this method suggests that both mining and agricultural pursuits are best understood as technological and engineering activities, which frequently end up competing for scientific domination on contested landscapes.