Industrializing Bacterial Work: Microbiopolitics, Biogas Alchemy, and the French Waste Management Sector

Daniel, François-Joseph (2023.0)

ABSTRACT ORIGINAL

Biological waste recycling has recently attracted widespread interest and investment. Large industrial plants that use microbiological engineering to process municipal waste and produce biogas have been established in different countries including Germany, France, Portugal, Brazil, Canada, and China, to name a few. These biowaste facilities are not simply classical energy infrastructures, as they are commonly described, but rather rely on the power of bacteria, archaea, and fungi at several levels to accomplish the work of waste metamorphosis. Such an appropriation of microbes' vital force is based on specific and complex human–microbe relations, or microbiopolitics, that rely on practices of attention, care, and proximity with waste material. However, in these industrial attempts of upgrading the metabolic work of bacteria, the need for more hands-on daily care of waste materials and biological processes is being superseded by the automation of waste processing. Close examination of the French context shows that this shift produces ignorance regarding the growth and evolution of bacterial colonies and reduces humans' attention and proximity to the industrial process, thereby depriving the microbes of elements that hitherto kept them domesticated.