

## London's Ghost Acres, 1850–1919

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This project explores the environmental consequences of the expanding global commodity network that supplied London's industrial economy during the second half of the nineteenth century. As Kenneth Pomeranz argues in *The Great Divergence*, British industrial development was predicated on the resources contributed by distant "ghost acres" of land inside the British Empire and beyond it (2001). This study intends to map metaphorically and concretely the "ghost acres" that fed the factories of London.

The continuous growth of London's industrial economy and population relied increasingly on "ghost acres" located outside of Britain. While the British economy broke free from the long-standing organic restraints on development through an increasing dependence on coal to fuel industrialization, they continued to require large quantities of other raw materials. By the second half of the nineteenth century many of the products consumed in London originated overseas. These included soap, candles, bread, margarine, marmalade, rain jackets, leather shoes, and wooden furniture. These consumer goods were manufactured in factories in the Thames Estuary from raw materials imported from Canada, the United States, Jamaica, Peru, Brazil, Spain, West Africa, India, Ceylon, and New Zealand, among other locations. During the nineteenth century, the discovery and transfer of new plants, combined with the growing demands for food and raw materials, brought more and more of the world's land into cultivation. Significant deforestation resulted from this expansion of agriculture and the growing demand for a wide range of forest products. In many cases, this in turn reduced biodiversity, helped spread plant diseases, and increased soil erosion. This historical research explores how the intersections between industry, science, consumer culture, empire, and markets in London transformed numerous environments around the globe through a series of interrelated case studies of London's factories and their commodity chains.

This research further develops digital humanities approaches to historical questions. This team project builds on *Trading Consequences*, which involved two years of adapting text-mining and visualization technologies to historical records. This new stage, funded by a Social Science and Humanities Research Council Insight Development grant and a Rachel Carson Center fellowship, will begin the process of using the massive database resulting from the text mining to research the many relationships between rapid industrialization in nineteenth-century Greater London and environmental transformations throughout the world. To supplement this text-mined

database, we are also using the *Annual Statement of the Trade and Navigation of the United Kingdom with Foreign Countries and British Possessions* series of documents found in the House of Commons Parliamentary Papers to create a new relational database recording British imports of raw materials in the second half of the nineteenth century.