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Science, Commerce, and the Circulation of Knowledge: The James Watt and Matthew Boulton Partnership in 18th-Century Knowledge Networks

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One of the most significant scientist-merchant collaborations of the 18th century, the partnership between James Watt and Matthew Boulton, provides a crucial case study for understanding how knowledge circulated through academic communities, intellectual networks, and commercial practices. This study explores how Watt and Boulton met, how their skills complemented each other, and how their collaboration contributed to early modern knowledge systems.

Watt and Boulton crossed paths in 1768 in Birmingham, when Matthew Boulton, the owner of the Soho Manufactory, sought a more reliable power source, as waterpower proved inconsistent. At the same time, James Watt was refining his separate condenser steam engine and searching for financial support. Boulton's interest in Watt's work laid the foundation for a productive partnership that extended beyond investment, demonstrating how scientific knowledge was integrated into industrial production.

This collaboration was not solely based on the convergence of an engineer and a merchant but was also facilitated by intellectual and social networks. Both were involved in the Lunar Society, a group of scientists, inventors, and industrialists fostering discussions merging scientific ideas with commercial applications. Their correspondence with figures such as Joseph Black, John Roebuck, Erasmus Darwin, and Joseph Priestley illustrates how knowledge flowed through laboratories, institutions, and commercial exchanges.

This study examines the circulation of knowledge, Watt and Boulton's correspondence, their connections with the Royal Society, and the mechanisms linking scientific and commercial knowledge.

Short Biography

Dr. Nihal Özdemir received her undergraduate degree from Istanbul University, Faculty of Letters, Department of the History of Science. She completed her first master's degree in philosophy of history at Marmara University, Faculty of Theology, with a thesis titled "The Problem of Knowledge in Bertrand Russell in Light of New Realism", which was later published by Muhayyel Publishing. Additionally, she earned a second bachelor's degree in journalism from Marmara University, Faculty of Communication.

She obtained her Ph.D. in Philosophy from Medeniyet University, Department of Philosophy, with a dissertation titled "New Knowledge Dissemination Channels: The Publicization of Knowledge in 17th-Century England", which was published by both Hiperlink and Ketebe Publishing. Dr. Özdemir also completed a second Ph.D. in Philosophy and Religious Studies at Marmara University, with a dissertation on "New Scientific Knowledge Dissemination Channels in 19th-Century Ottoman Empire".

Her research focuses on the circulation of knowledge, scientific publicization spaces such as coffeehouses, and the transformation of science through artistic representation. She has published articles and book chapters on Islamic Science History and Ottoman Science History.

Dr. Özdemir is the producer and coordinator of the program "Science History Talks". She is currently a faculty member at Fatih Sultan Mehmet Vakıf University, Department of the History of Science, and serves as the Director of the Prof. Dr. Fuat Sezgin Institute for the History of Islamic Science at the same university. She actively contributes to various non-governmental organizations and leads the TÜBİTAK Science History Workshops Project.

Keywords

Knowledge circulation, science and commerce collaboration, James Watt, Matthew Boulton, Lunar Society, early modern knowledge networks, industrial knowledge transfer, steam engine development, Royal Society, intellectual and commercial exchange

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