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0521572444 - The Cambridge History of Science, Volume 3: Early Modern Science

Edited by Katharine Park and Lorraine Daston

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THE CAMBRIDGE HISTORY OF SCIENCE

VOLUME 3

Early Modern Science

Volume 3 offers a broad and detailed account of how the study of nature was transformed in Europe between ca. 1500 and ca. 1700. Chapters on how nature was studied, where, and by whom cover disciplines from astronomy and astrology to magic and natural history, sites of knowledge from the laboratory and the battlefield to the library and the marketplace, and types of knowers, from university professors and apothecaries to physicians and instrument makers. Separate sections on “The New Nature” and “Cultural Meanings of Natural Knowledge” address the impact of the new natural knowledge on conceptions of nature, experience, explanation, and evidence and on religion, art, literature, gender, and European self-definition, respectively. Contributions are written in clear, accessible prose, with extensive bibliographical notes, by noted specialists. The volume offers to scholars and general readers a synoptic overview of the research on early modern science that has challenged the traditional view of the “Scientific Revolution” while emphasizing profound but diverse changes in natural knowledge during this key epoch in European history.

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LORRAINE DASTON



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Origins of Modern Science (1989), *Nature's Body: Gender in the Making of Modern Science* (1993, 2nd ed. 2004), *Has Feminism Changed Science?* (1999), and *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (2004). She is the editor of *Feminism and the Body* (2000), section editor of the *Oxford Companion to the Body* (2001), coeditor of *Feminism in Twentieth-Century Science, Technology, and Medicine* (2001, with Angela Creager and Elizabeth Lunbeck), and coeditor of *Colonial Botany: Science, Commerce, and Politics* (2004, with Claudia Swan). She is currently working on race and health in eighteenth-century colonial science.

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GENERAL EDITORS' PREFACE

In 1993, Alex Holzman, former editor for the history of science at Cambridge University Press, invited us to submit a proposal for a history of science that would join the distinguished series of Cambridge histories launched nearly a century ago with the publication of Lord Acton's fourteen-volume *Cambridge Modern History* (1902–12). Convinced of the need for a comprehensive history of science and believing that the time was auspicious, we accepted the invitation.

Although reflections on the development of what we call “science” date back to antiquity, the history of science did not emerge as a distinctive field of scholarship until well into the twentieth century. In 1912, the Belgian scientist-historian George Sarton (1884–1956), who contributed more than any other single person to the institutionalization of the history of science, began publishing *Isis*, an international review devoted to the history of science and its cultural influences. Twelve years later, he helped to create the History of Science Society, which by the end of the century had attracted some 4,000 individual and institutional members. In 1941, the University of Wisconsin established a department of the history of science, the first of dozens of such programs to appear worldwide.

Since the days of Sarton, historians of science have produced a small library of monographs and essays, but they have generally shied away from writing and editing broad surveys. Sarton himself, inspired in part by the Cambridge histories, planned to produce an eight-volume *History of Science*, but he completed only the first two installments (1952, 1959), which ended with the birth of Christianity. His mammoth three-volume *Introduction to the History of Science* (1927–48), a reference work more than a narrative history, never got beyond the Middle Ages. The closest predecessor to *The Cambridge History of Science* is the three-volume (four-book) *Histoire générale des sciences* (1957–64), edited by René Taton, which appeared in an English translation under the title *General History of the Sciences* (1963–4). Edited just before the late twentieth-century boom in the history of science, the Taton set quickly

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became dated. During the 1990s, Roy Porter began editing the very useful Fontana History of Science (published in the United States as the Norton History of Science), with volumes devoted to a single discipline and written by a single author.

The Cambridge History of Science comprises eight volumes, the first four arranged chronologically from antiquity through the eighteenth century, the latter four organized thematically and covering the nineteenth and twentieth centuries. Eminent scholars from Europe and North America, who together form the editorial board for the series, edit the respective volumes:

Volume 1: *Ancient Science*, edited by Alexander Jones, University of Toronto

Volume 2: *Medieval Science*, edited by David C. Lindberg and Michael H. Shank, University of Wisconsin–Madison

Volume 3: *Early Modern Science*, edited by Katharine Park, Harvard University, and Lorraine Daston, Max Planck Institute for the History of Science, Berlin

Volume 4: *Eighteenth-Century Science*, edited by Roy Porter, late of Wellcome Trust Centre for the History of Medicine at University College London

Volume 5: *The Modern Physical and Mathematical Sciences*, edited by Mary Jo Nye, Oregon State University

Volume 6: *The Modern Biological and Earth Sciences*, edited by Peter Bowler, Queen's University of Belfast, and John Pickstone, University of Manchester

Volume 7: *The Modern Social Sciences*, edited by Theodore M. Porter, University of California, Los Angeles, and Dorothy Ross, Johns Hopkins University

Volume 8: *Modern Science in National and International Context*, edited by David N. Livingstone, Queen's University of Belfast, and Ronald L. Numbers, University of Wisconsin–Madison

Our collective goal is to provide an authoritative, up-to-date account of science – from the earliest literate societies in Mesopotamia and Egypt to the beginning of the twenty-first century – that even nonspecialist readers will find engaging. Written by leading experts from every inhabited continent, the essays in *The Cambridge History of Science* explore the systematic investigation of nature and society, whatever it was called. (The term “science” did not acquire its present meaning until early in the nineteenth century.) Reflecting the ever-expanding range of approaches and topics in the history of science, the contributing authors explore non-Western as well as Western science, applied as well as pure science, popular as well as elite science, scientific practice as well as scientific theory, cultural context as well as intellectual content, and the dissemination and reception as well as the production of scientific

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knowledge. George Sarton would scarcely recognize this collaborative effort as the history of science, but we hope we have realized his vision.

David C. Lindberg
Ronald L. Numbers

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Katharine Park
Lorraine Daston