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978-0-521-62754-2 - Renaissance and Revolution: Humanists, Scholars, Craftsmen and Natural Philosophers in Early Modern Europe

Edited by J. V. Field and Frank A. J. L. James

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*Renaissance and Revolution* is a collection of fifteen essays on some of the problems presently associated with the Scientific Revolution of the sixteenth and seventeenth centuries. The topics treated include the dissemination of Greek science, medical empiricism, natural history, the relations of scholars and craftsmen from the fifteenth to the seventeenth century, the so-called 'mechanical philosophy' in France and England, the work of Isaac Newton, and the difficulties encountered by Newtonianism in Italy in the early eighteenth century. Figures discussed include Leonardo Fioravanti, Jan Swammerdam, Piero della Francesca, Johannes Hevelius, Jonas Moore, Robert Boyle, Isaac Newton, Christiaan Huygens, Francesco Algarotti and Luigi Ferdinando Marsigli. There is an introduction by the editors and an afterword by A. Rupert Hall. The authorship is international, including scholars with established reputations as historians of science.

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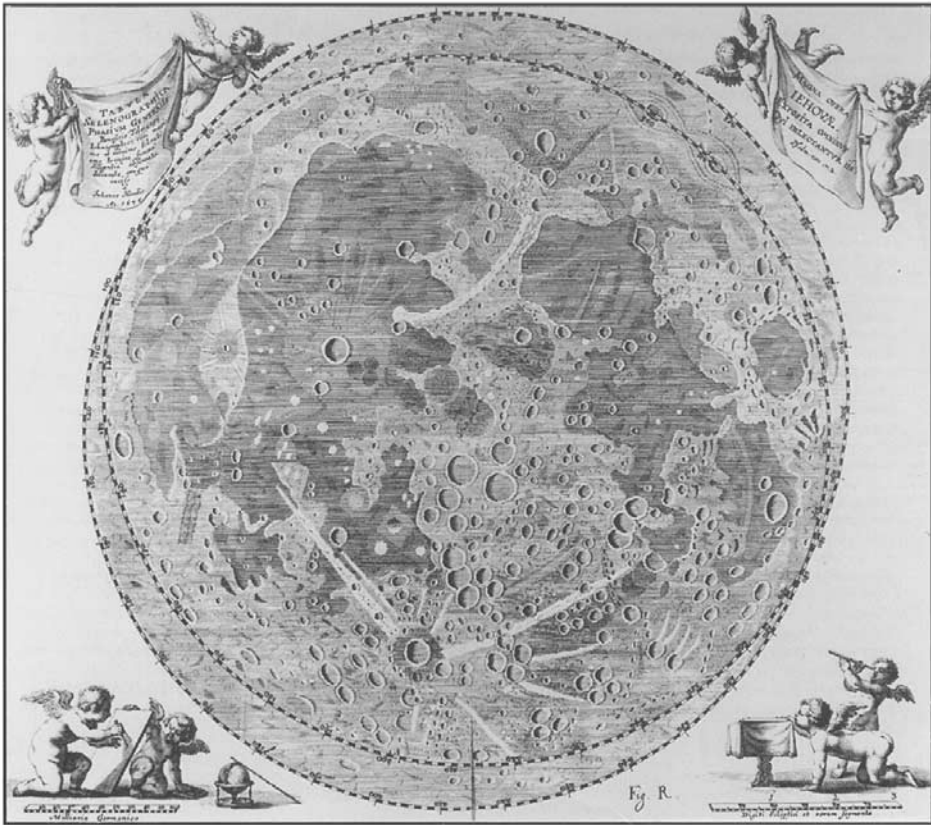
**Renaissance and Revolution**

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Full Moon engraved by Hevelius. Putti probably added by Adolph Boij. Hevelius, *Selenographia*, (Gdańsk, 1647) pp. 262–3.

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# Renaissance and Revolution

## Humanists, scholars, craftsmen and natural philosophers in early modern Europe

*Edited and introduced by*

J. V. FIELD

*Birkbeck College, University of London*

and

FRANK A. J. L. JAMES

*Royal Institution Centre for the History of Science and Technology*



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## *Preface*

The papers collected in this volume originate from the British Society for the History of Science Summer Meeting of 1990, held in Keble College, Oxford, with lectures in the University's Engineering Department. In honour of the seventieth birthday of Professor Rupert Hall, the title of the meeting was 'The Scientific Revolution'. Its subject matter ranged widely, by no means being confined to topics considered in Hall's similarly titled book of 1954 (second edition 1962) or its slightly less similarly titled third edition of 1983.

The conference was attended by about 160 people. Despite the heat – which strained the credulity of foreign visitors and the air-conditioning of the lecture theatre used for the plenary sessions – discussions, both formal and informal, were lively and friendly. References to some of them are to be found in footnotes of papers in this collection.

That everyone at the meeting seemed happy to talk shop with everyone else suggested a community of historical interests that was not immediately apparent on scanning the titles of the papers presented. In selecting papers for publication, we strove to preserve something of the diversity that enlivened the conference while at the same time bringing out some of the unifying elements that made the conference so friendly. Such elements have helped to give coherence to this book.

Like most of the members of the Organizing Committee of the Oxford conference, the editors were students in the Department of History of Science and Technology at Imperial College, where they both wrote their Ph.D. theses (J. V. Field's research being supervised by Rupert Hall, F. A. J. L. James's by Marie Boas Hall). In drawing up the programme of the conference there was general agreement that the guiding principle should be not to look for personal connections with the Halls but rather to ask for papers on subjects with which they had been concerned. This use of the Halls' scholarly work as an organizing principle was never intended to lead, and in the event did not lead, to a conference that was a homage to the Halls in any sense other than that of showing that some of the intellectual hares they had started were still up and running. We consider that this, together with being read, is the healthiest form of homage to a historian. It has been repeated, in a more durable mode, in this book.

The two editors were co-secretaries to the Organizing Committee for the conference, which developed from an idea put forward by John Hendry. The other members

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of the Committee were Janet Browne, Robert Fox, Willem Hackmann, Graham Hollister-Short, Malcolm Oster and Mari E. W. Williams.

We should like to record our gratitude to John Pickstone (Programme Secretary, BSHS) and Wing Commander Geoffrey Bennett (Executive Secretary, BSHS) for their help; and to the British Academy, the International Union for the History and Philosophy of Science, the Royal Society of London and the Wellcome Trust for generous financial support for the conference.

We are grateful to our contributors for their patience in responding to editorial queries and for allowing the emendations required to give the volume an acceptable degree of stylistic coherence. In particular, we are grateful to Michael Hunter for guidance based on his own experience as an editor, and, most particularly of all, to Rupert Hall, who kindly read and commented on an earlier draft of our Introduction. We owe thanks also to John Henry, Anita McConnell and Simon Schaffer, who provided us with bibliographic references and other items of aid.

During most of the time that work was being done on this book, JVF was an academic visitor in the Mathematics Department of Imperial College of Science, Technology and Medicine (University of London). We should like to express our gratitude to the College and the Department for facilitating our work in this way.

Much of the editorial work involved using FAJLJ's word processor. We are grateful to the other members of the James household – most particularly Joasia James – for their forbearance in tolerating the consequent disruption to their normal lives.

JVF FAJLJ

*London, August 1992*

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## *Notes on contributors*

PAOLO CASINI earned his *venia docendi* in history of philosophy at the University of Rome, 'La Sapienza', where he currently teaches. He has also given courses in the Universities of Lecce, Trieste and Bologna. Among his publications are: *L'Universo-Macchina. Origini della Filosofia Newtoniana* (Bari, 1969); *Introduzione all' Illuminismo. Da Newton a Rousseau* (Bari, 1973); *Newton e la coscienza europea* (Bologna, 1983); a critical edition of the *Classical Scholia* by Newton, *Hist. Sci.*, 1984, **22**: 1–58. He is preparing a book concerning various aspects of the Pythagorean tradition from the sixteenth to the nineteenth century.

Address: Istituto di Filosofia, Università di Roma 'La Sapienza', Via Nomentana 118, 00161 Roma, Italy.

HAROLD J. COOK, Associate Professor of the Departments of the History of Medicine and History of Science at the University of Wisconsin-Madison, has mainly written on seventeenth-century English medicine. His book *The Decline of the Old Medical Regime in Stuart London* was published by Cornell University Press in 1986. More recently, he has been working on comparative studies of Dutch and English science and natural history, and has contributed an article titled 'The new philosophy in the Low Countries' for *The Scientific Revolution in National Context*, edited by R. Porter and M. Teich.

Address: Department of the History of Medicine, University of Wisconsin Medical School, 1415 Medical Sciences Center, 1300 University Avenue, Madison, WI 53706, USA.

GIORGIO DRAGONI is Professor of Physics at the University of Bologna. He has written many articles on the history of science in Bologna and elsewhere.

Address: Dipartimento di Fisica, Università degli Studi di Bologna, Via Irnerio 46, 40126 Bologna, Italy.

WILLIAM EAMON is Associate Professor and Head of the History Department at New Mexico State University. He has published numerous articles on science and popular culture and on the 'books of secrets' tradition in late medieval and early modern Europe. His book *Science and the Secrets of Nature* is forthcoming.

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Address: Department of History, New Mexico State University, Box 3H/Las Cruces, NM 88003, USA.

J. V. FIELD, who has research interests in mathematics and the mathematical sciences in the period from about 1400 to 1650, is the author of *Kepler's Geometrical Cosmology* (1988) as well as co-author, with J. J. Gray, of *The Geometrical Work of Girard Desargues* (1987) and, with E. J. Aiton and A. M. Duncan, of a translation of Kepler's *Harmonices mundi libri V* (Linz, 1619) now in press.

Address: Department of History of Art, Birkbeck College, University of London, 43 Gordon Square, London WC1H 0PD.

KARIN FIGALA studied pharmacy at the Universities of Bern, Bonn and Hamburg. Following industrial employment, she wrote her doctoral thesis on the history of pharmacy (1969) and joined the Technical University, Munich, (now Zentralinstitut für Geschichte der Technik) as assistant professor. She gained her *Habilitation* (1977) with a study of Newtonian alchemy and theory of matter. Further topics of her studies are the history of sixteenth- and seventeenth-century chemistry and alchemy in general, and the life and work of the German alchemist and Rosicrucian Michael Maier. Address: Institut für Geschichte der Technik, Deutsches Museum, 8000 Munich 26, Germany.

GAD FREUDENTHAL is *Chargé de recherche* at the *Centre National de la Recherche Scientifique (CNRS)*, Paris. His main research interests are the history of theories of matter before the seventeenth century and the history of science within medieval Jewish communities. He has recently edited *Studies on Gersonides – A Fourteenth-Century Jewish Philosopher-Scientist* (Leiden: Brill, 1992).

Address: 156 rue d'Aulnay, F – 92290 Châtenay-Malabry, France.

ALAN GABBEY teaches philosophy at Barnard College, Columbia University, New York, and is former Reader in History and Philosophy of Science, Queen's University Belfast. He is a *membre effectif* of the Académie Internationale d'Histoire des Sciences. His interests lie mainly in Renaissance and seventeenth-century philosophy and science, especially natural philosophy and the philosophy of the mind. Currently he is working on a commented translation of the More–Descartes letters, an inventory of the manuscripts and papers of Roberval, and a study of the mechanical philosophy. Address: Department of Philosophy, 326 Milbank Hall, Barnard College, 3009 Broadway, New York, NY 10027–6598, USA.

A. RUPERT HALL first opened the Pandora's box of Newton's Cambridge manuscripts in 1948. His book on the Scientific Revolution was first published in 1954. He has taught in universities in Britain and in the United States of America.

Address: 14 Ball Lane, Tackley, via Kidlington, Oxfordshire, OX5 3AG, England.

R. W. HOME studied physics and then history and philosophy of science at the University of Melbourne before completing a Ph.D. in history and philosophy of science at Indiana University. He has been Professor of History and Philosophy of

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Science at the University of Melbourne since 1975. He has published extensively on the history of eighteenth-century physics and on the history of science in Australia. Address: Department of History and Philosophy of Science, University of Melbourne, Parkville, Victoria 3052, Australia.

MICHAEL HUNTER is Professor of History at Birkbeck College, University of London. He is author of various studies of the early Royal Society and its context, and is currently working on the life and thought of Robert Boyle.

Address: Department of History, Birkbeck College, Malet Street, London, WC1E 7HX, England.

FRANK A. J. L. JAMES is Lecturer in History of Science at the Royal Institution Centre for the History of Science and Technology. He has written, from a variety of perspectives, on the history of the physical sciences during the first two-thirds of the nineteenth century. He is currently editing the correspondence of Michael Faraday (1791–1867), volume one of which was published in 1991.

Address: Royal Institution Centre for the History of Science and Technology, Royal Institution, 21 Albemarle Street, London, W1X 4BS, England.

ROBERTO DE ANDRADE MARTINS is a Brazilian historian of science. After a first degree in physics, he took his Ph.D. in logic and philosophy of science in 1987 at UNICAMP (State University of Campinas). He has published two books (on Copernicus and on Pascal) and several papers on history of science, philosophy of science and physics (relativity theory).

Address: Group of History and Theory of Science, DRCC/IFGW/UNICAMP, Caixa Postal: 6165, 13081 Campinas – SP, Brazil.

VIVIAN NUTTON is Senior Lecturer in the History of Medicine at the Wellcome Institute for the History of Medicine, London.

Address: Wellcome Institute for the History of Medicine, 183 Euston Road, London, NW1 2BP, England.

ULRICH PETZOLD studied chemistry at the Universities of Konstanz and Zurich and has worked as a freelance translator and editor. He cooperated in Karin Figala's studies on Newtonian alchemy and is preparing a thesis on J. F. Vigini and chemical education at Cambridge University. He is also interested in the history of sixteenth- and seventeenth-century alchemy and the publishing history of alchemy.

Address: Institut für Geschichte der Technik, Deutsches Museum, 8000 Munich 26, Germany.

ALBERT VAN HELDEN is Lynette S. Autrey Professor of History at Rice University, where he teaches the history of science and technology. His research area is the history of telescopic astronomy.

Address: Department of History, Rice University, PO Box 1892, Houston, TX 77251, USA.

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RICHARD S. WESTFALL is Professor Emeritus of the History of Science at Indiana University. He has made the Scientific Revolution his special field of study and is the author of a biography of Isaac Newton. At present he is working on a social history of the scientific community of that era.

Address: Department of History and Philosophy of Science, Indiana University, Bloomington, IN 47405, USA.

FRANCES WILLMOTH studied history at the University of Birmingham and completed an archive traineeship at the Bodleian Library, Oxford. She prepared the present catalogue of John Flamsteed's papers at the Royal Greenwich Observatory before moving on to work elsewhere as an archivist; her subsequent Ph.D. thesis, a biography of Flamsteed's patron Sir Jonas Moore, was published in 1993. She has undertaken the task of finishing the late Professor Eric Forbes's edition of Flamsteed's correspondence.

Address: 74 Canterbury Street, Cambridge, CB4 3QE, England.

MARY G. WINKLER, an art historian, is Assistant Professor of Medical Humanities at the Institute for the Medical Humanities at the University of Texas Medical Branch in Galveston. Her research area is the artistic tradition of the Northern Renaissance.

Address: Institute for the Medical Humanities, The University of Texas Medical Branch at Galveston, Galveston, TX 77550-2778, USA.

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## *Abbreviations*

*BWN* *Biographisch Woordenboek der Nederlanden*.

*DBI* *Dizionario Biografico degli Italiani*.

*DNB* *Dictionary of National Biography* [British].

*DSB* *Dictionary of Scientific Biography*.

*KGW* Kepler, Johannes, *Johannes Kepler gesammelte Werke*, ed. M. Caspar, *et al.*, Munich, 1938–.

*OCCH* Huygens, Christiaan, *Œuvres complètes de Christiaan Huygens*, ed. D. Bierans de Haan, J. Bosscha, D. J. Kortweg and J. A. Vollgraff, 22 volumes, The Hague, 1888–1950.

*OGG* Galilei, Galileo, *Opere di Galileo Galilei*, ed. Antonio Favaro, 20 volumes, Florence, 1890–1909, 1929–1939, 1964–1966.

*NNBW* *Nieuw Nederlandsch Biografisch Woordenboek*.

*TBDOO* Brahe, Tycho, *Tychonis Brahe Dani Opera Omnia*, ed. J. L. E. Dreyer and J. Ræder, 15 volumes, Copenhagen, 1913–1929.