
Historiographies of Science

Series Editor

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The goal of this series is to provide definitive assessments of the historiography and the future of major fields and approaches within the history of science. Each volume will address the major trends in historical thought within a particular field, the major debates among historians of that field, and promising new directions that may shape future scholarship. Each volume is framed in terms of what a scholar should know about the history of work in that area, if they wanted to make a meaningful and original contribution to that field.

Each volume will be written by experts in that field for graduate students and other scholars new to the history of that field. While other areas of history have extensive historiographic literatures, history of science has fewer resources from which to draw. The paucity of historiographical reflections by leading scholars in the history of science makes it more difficult for new scholars to join the field, as they try to assess the traditions of research on their own. These volumes will offer an informed introduction to major issues that will foster new, original research in the history of science.

Editors will be asked to select topic areas/fields that they think have had a substantial and diverse body of scholarship. Each volume will be informed by different methods, theories, and perspectives that can be compared and contrasted in each volume.

More information about this series at <http://www.springer.com/series/15837>

Michael R. Dietrich • Mark E. Borrello •
Oren Harman
Editors

Handbook of the Historiography of Biology

With 5 Figures and 3 Tables

 Springer

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Series Preface

While some areas of history have extensive historiographic literatures, history of science has fewer resources from which to draw than most. This scarcity of historiographical reflections by leading scholars makes it more challenging for newcomers who must try to assess traditions of historical research as they frame their own contribution to the history of science. As informed introductions to major themes in the writing of the history of science, we hope that this series will both help foster original research in the history of science and further discussion regarding historiographic trends.

The goal of this series is to provide an assessment of the historiography and future of major approaches within the history of science. Each volume addresses the major trends in historical thought within a particular field, the major debates among historians of that field, and promising new directions that may shape future scholarship. Written for graduate students or scholars new to the history of science, each volume is framed in terms of what a scholar should know about the history of work in that area, if they wanted to make a meaningful and original contribution to that field.

The volumes in the historiography of science series are not intended to provide comprehensive reviews of every topic discussed in the history of science. Editors of individual volumes select topic areas and fields that they think have had a substantial and diverse body of scholarship that have been informed by different methods, theories, and perspectives. Because we would like to foster more conversation about historiography, we see the idiosyncrasies of individual chapters, not as flawed and partial perspectives, but as opportunities to articulate diverse perspectives through an ongoing conversation. These volumes are open for revision through Springer's Meteor publishing platform. Please engage with the authors and editors and help push this historiographic dialogue further.

January 2021

Michael R. Dietrich

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About the Editors



Michael R. Dietrich is Professor and Chair of History and Philosophy of Science at the University of Pittsburgh. He studied Philosophy and Biology at Virginia Tech before earning a doctorate in Philosophy at the University of California, San Diego. As a historian and philosopher of twentieth-century biology, his primary interests are in the nature of scientific controversy. In numerous scholarly articles and chapters, he has explored controversies in evolutionary genetics and molecular evolution, as well as controversial figures, such as the émigré geneticist Richard Goldschmidt. He has coedited several books including *Rebels, Mavericks, and Heretics in Biology* with Oren Harman (2007), *The Educated Eye: Visual Culture and Pedagogy in the Life Sciences* with Nancy Anderson (2012), *Biology Outside the Box: Boundary Crossers and Innovation in the Life Sciences* with Oren Harman (2013), and *Dreamers, Visionaries and Revolutionaries in the Life Sciences* with Oren Harman (2018). He is currently writing a book on genetic drift with Roberta Millstein and Robert Skipper entitled *Survival of the Luckiest: Perspectives on the History and Philosophy of Random Drift in Evolutionary Biology*, as well as a biography of Richard Goldschmidt.



Mark E. Borrello, Associate Professor of History of Science in the Department of Ecology, Evolution and Behavior, and Director of the Program in the History of Science and Technology, at the University of Minnesota, studied history and philosophy of science at Indiana University earning a doctorate in 2002. Before coming to the University of Minnesota, he was a visiting assistant professor at the Lyman Briggs School at Michigan State University. As a historian and philosopher of biology, his primary interests are in the development of evolutionary theory in the late-nineteenth and twentieth centuries. In numerous scholarly articles and chapters, he has explored the debate over the levels of selection idea from Darwin to the present. His 2010 book on this topic, *Evolutionary Restraints: the Contentious History of Group Selection*, was published by the University of Chicago Press. He is currently engaged in an investigation of the nature of individuality in developmental and evolutionary contexts. He has published on this topic with his colleagues Michael Travisano, William Ratcliff, and Ford Denison (PNAS 2012). His work has been supported by grants from the National Science Foundation.



Oren Harman is the Chair of the Graduate Program in Science, Technology and Society at Bar Ilan University and Senior Research Fellow at the Van Leer Jerusalem Institute, where he hosts the public series “Talking About Science in the 21st Century” and the Science and Creativity Group. He was trained in history and biology at the Hebrew University, Oxford, and Harvard, and is a historian of science and a writer. He teaches evolutionary theory, history and philosophy of science, and writing. His books include *The Man Who Invented the Chromosome* (Harvard, 2004), *Evolutions: Fifteen Myths That Explain Our World* (Farrar, Straus, and Giroux, 2018), and the coedited trilogy, with Michael R. Dietrich, *Rebels, Mavericks and Heretics in Biology* (Yale, 2008), *Outsider Scientists* (Chicago, 2013), and *Dreamers, Visionaries and Revolutionaries in the Life Sciences* (Chicago, 2018). His book *The Price of Altruism* (W.W. Norton, 2010) (Bodley Head/Random

House, 2010) won the 2010 Los Angeles Times Book Prize for Best Book of the Year in Science and Technology, was nominated for the Pulitzer Prize, and was a New York Times Notable Book of the Year. He is currently working on a book about metamorphosis.

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