

Cambridge University Press

978-0-521-85554-9 - The Commercial and Political Atlas and Statistical Breviary

William Playfair

Frontmatter

[More information](#)

Playfair's Commercial and Political Atlas and Statistical Breviary

A scientific revolution began at the end of the 18th century with the invention and popularization of the graphic display of data by the remarkable Scot William Playfair. His marvelous *Atlas* showed how much could be learned if one plotted data atheoretically and looked for suggestive patterns. Those patterns provide evidence, albeit circumstantial, on which to build new science. Playfair's work has much to teach us, but finding a copy of it is very difficult. This full-color reproduction of two of his classic works, with new explanatory material, makes Playfair's wisdom widely available for the first time in two centuries.

Howard Wainer is Distinguished Research Scientist for the National Board of Medical Examiners and Adjunct Professor of Statistics at the Wharton School of the University of Pennsylvania. He is the author of 15 previous books, most recently, *Graphic Discovery: A Trout in the Milk and Other Visual Adventures* (2005).

Ian Spence is Professor of Psychology at the University of Toronto. His current research includes experimentation in human-computer interaction and visual memory. He is the author of more than 100 research articles and monographs.

"William Playfair's *Commercial and Political Atlas* and his *Statistical Breviary* are among the most important works in the entire history of statistical graphics and data visualization. Here we find the origin of the modern graphical forms most widely used today – the pie chart, line graph and bar chart – and Playfair used these with great skill to make his (largely economic) data 'speak to the eyes.' While some of his graphs have been reprinted, often badly, in historical studies, few people have been able to study the very few extant complete copies of these works to see the scope (and beauty) of Playfair's graphical innovations together, and in original context. At least as important, a modern reader will want to read Playfair's words to see how he faced the challenge of presenting his novel charts to his audience around 1800.

"Spence and Wainer have done a great service to all those interested in visual information display and its history, first by providing high-resolution copies of Playfair's main works, and second by giving us a window on 'what he was thinking.'"

– Michael Friendly, York University

"William Playfair was the great pioneer of statistical graphics. The striking inventions of these path-breaking books show already in 1801 the medium's capacity to distill large amounts of data into easily-grasped pictures, as well as the dangers of graphical misinformation. If Playfair's time series figures misleadingly portray Britain's economic condition through emphasis upon balance of trade, and his pie charts risk deceiving through submersion of magnitudes in service of proportions, all of these nonetheless convey the author's polemical message accurately and brilliantly. Playfair's text brings its fascinating author and his time to life, and his beautiful colored charts are functional artistic creations of a high order. These books are the well-spring of modern graphical display, warts and all."

– Stephen Stigler, University of Chicago

Cambridge University Press

978-0-521-85554-9 - The Commercial and Political Atlas and Statistical Breviary

William Playfair

Frontmatter

[More information](#)

The Commercial and Political Atlas and Statistical Breviary

William Playfair

Edited and Introduced by

Howard Wainer

*National Board of
Medical Examiners*

Ian Spence

University of Toronto



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press

978-0-521-85554-9 - The Commercial and Political Atlas and Statistical Breviary

William Playfair

Frontmatter

[More information](#)

CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press

40 West 20th Street, New York, NY 10011-4211, USA

www.cambridge.orgInformation on this title: www.cambridge.org/9780521855549

© Cambridge University Press 2005

This book is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2005

Printed in Hong Kong by Golden Cup

*A catalog record for this publication is available from the British Library.**Library of Congress Cataloging-in-Publication Data*

Playfair, William, 1759–1823.

Playfair's Commercial and political atlas and Statistical breviary / William Playfair; edited and introduced by Howard Wainer and Ian Spence.

p. cm.

A full color reproduction of the Atlas, 3rd ed., and of the Breviary, both published in London by J. Wallis, 1801.

"Bibliography: variations of the Atlas and Breviary": p. .

Includes bibliographical references.

ISBN 0-521-85554-3

1. Great Britain – Statistics – Early works to 1800.
2. Great Britain – Commerce – Early works to 1800.
3. Great Britain – Commerce – History – 18th century.
4. Europe – Statistics – Early works to 1800.
5. Statistics – Graphic methods.
- I. Title: Commercial and political atlas and Statistical breviary.
- II. Title: Playfair's Statistical breviary.
- III. Title: Statistical breviary.
- IV. Playfair, William, 1759–1823. Statistical breviary.
- V. Wainer, Howard.
- VI. Spence, Ian, 1944–
- VII. Playfair, William, 1759–1823. Statistical breviary.
- VIII. Title.

HF3501.5.P58 2005

314'.09'033–dc22 2005046971

ISBN-13 978-0-521-85554-9 hardback

ISBN-10 0-521-85554-3 hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party Internet Web sites referred to in this book and does not guarantee that any content on such Web sites is, or will remain, accurate or appropriate.

Cambridge University Press

978-0-521-85554-9 - The Commercial and Political Atlas and Statistical Breviary

William Playfair

Frontmatter

[More information](#)

To
Linda Steinberg
and
Elsa Marziali

Sine quibus non

Cambridge University Press

978-0-521-85554-9 - The Commercial and Political Atlas and Statistical Breviary

William Playfair

Frontmatter

[More information](#)

Preface

To those interested in the effective visual communication of quantitative phenomena, William Playfair's *Atlas* is like The Bible: an ancient and revered book that is often cited but rarely read. The *Atlas* has been difficult to find and read simply because it is old and rare – copies that still exist are either prized by private collectors or stored safely within the confines of rare book libraries. Happily, after more than two centuries, the *Atlas* is now available for anyone who would like one. While we are pleased to have played our part in this rebirth, our role was not that of a Gutenberg (that honor belongs to Cambridge University Press). We play the role of a pair of graphical Gideons; the reproduction of this masterwork at an affordable price means that it will now be widely available to spread the gospel according to William Playfair.

The volume you hold in your hand contains more than Playfair's *Atlas*, although that alone would have been enough to cherish. It also includes his *Statistical Breviary*. During the span of sixteen years, from 1786 to 1801, Playfair revised and republished his *Atlas* twice. We have chosen to reproduce here the third and most mature edition. It was published in the same year as his *Statistical Breviary*, and so putting them together provides a fuller picture of his thinking at that time. As Playfair himself said, "the two go with great Propriety together." In addition to the facsimiles, we have prepared an introduction relating many of the fascinating, and often surprising, details of the life led by William Playfair. The introduction also illuminates the contents of these volumes, discussing the technology behind their printing and highlighting some of Playfair's conceptual breakthroughs, as well as some of the difficulties, idiosyncrasies, and infelicities.

Bringing this republication to fruition required the assistance of many, and it is our pleasure to take this opportunity to express our most profound gratitude for their efforts.

This reproduction is copied from the *Atlas* and *Breviary* that are owned by the University of Pennsylvania, and we therefore first would like to thank the Annenberg Rare Book and Manuscript Library of the University of Pennsylvania. Among those at the library who warrant special mention are Greg Bear and his staff at the Schoenberg Center for Electronic Text and Image. *Primus inter pares* is John Pollack; he was

Cambridge University Press

978-0-521-85554-9 - The Commercial and Political Atlas and Statistical Breviary

William Playfair

Frontmatter

[More information](#)

generous with both his time and energy in his efforts to provide the finest possible copy.

Second in line for thanks is Abba Krieger, Chairman of the Department of Statistics at the University of Pennsylvania. Abba's support for a graduate seminar on statistical graphics (Statistics 991) was the catalyst that set us on a path leading initially to the rare books library and ultimately to scanning the works of interest for broader use.

The W. K. Kellogg Foundation, specifically Anne Petersen, Senior Vice President for Programs, deserves special thanks for providing the financial subsidy that allowed the publisher not only to assume the risk of reproducing a two-hundred-year-old book requiring high production costs, but to do so at a sale price that makes it accessible to a broad range of readers.

Our gratitude also to the National Board of Medical Examiners in general and to Donald Melnick, President, and Ronald Nungester, Senior Vice President, in particular, for support of and enthusiasm for the project despite its only very tenuous connection to the goals of the Board, and to Melissa Margolis for her fine editorial eye.

We thank the University of Toronto for its support in the form of research leaves to Ian Spence to pursue his biographical work on Playfair in Edinburgh, Birmingham, London, and Paris. We are grateful to the Thomas Fisher Rare Book Library at the University of Toronto for permission to reproduce some of the charts, in our Introduction, from its copies of the *Atlas* and *Breviary*. We are also grateful to the United States Library of Congress's Rare Book & Special Collections Reading Room, for providing the chart reproduced as Figure 4 of our introduction.

Ian Spence is deeply grateful to the late Sir Edward Playfair for his encouragement and many suggestions and criticisms; to Hugh Playfair for his invaluable genealogical research on the Playfair family; to John Lawrence Playfair for lending an original autograph of William Playfair; to Professors Antoine de Falguerolles, Michael Friendly, Gilles Palsky, and Hugh Torrens, and the late Professor John Fauvel for wise criticism and words of encouragement.

We are also grateful for the support, comments, and suggestions of a host of colleagues – too numerous to name – who take an interest in the history of statistical graphs.

Final thanks go to Lauren Cowles and the staff of Cambridge University Press. Their vision and sense of history inspired them to produce this high-quality volume.

Howard Wainer

Ian Spence