HOW WELL DO FACTS TRAVEL?

Why write about facts? Facts are everywhere. They litter the utterances of public life as much as the private conversations of individuals. They frequent the humanities and the sciences in equal measure. But their very ubiquity tells us not only why it is difficult to form general but sensible answers in response to seemingly simple questions about facts, but also why it is important to do so.

This book discusses how facts travel, and when and why they sometimes travel well enough to acquire an independent life of their own. Whether or not facts travel in this manner depends not only on their character and ability to play useful roles elsewhere, but also on the labels, packaging, vehicles, and company that take them across difficult terrains and over disciplinary boundaries. These diverse stories of travelling facts, ranging from architecture to nanotechnology and from romance fiction to climate science, change the way we see the nature of facts. Facts are far from the bland and rather boring but useful objects that scientists and humanists produce and fit together to make narratives, arguments, and evidence. Rather, their extraordinary abilities to travel well – and to fly flags of many different colours in the process – show when, how, and why facts can be used to build further knowledge beyond and away from their sites of original production and intended use.

Peter Howlett is an expert on the economic history of World Wars I and II, and contributed the text for the official history *Fighting with Figures* (1995). Dr. Howlett's publications also explore international economic growth and convergence since 1870 and the development of internal labour markets, and have appeared in edited volumes and journals such as the *Economic History Review, Explorations in Economic History*, and *Business History*. He teaches at the London School of Economics and is secretary of the Economic History Society.

Mary S. Morgan is professor of history and philosophy of economics at the London School of Economics and the University of Amsterdam. She has published widely on topics ranging from statistics to experiments to narrative, and from social Darwinism in late-nineteenth-century America to game theory in the Cold War. Her major works include *The History of Econometric Ideas* (1990), *The Foundations of Econometric Analysis* (1995, co-edited with David F. Hendry), and *Models as Mediators* (1999, co-edited with Margaret Morrison). Professor Morgan's account of scientific modelling is forthcoming in *The World in the Model*. She is currently engaged in the research project "Re-Thinking Case Studies across the Social Sciences" as a British Academy–Wolfson research professor.

ADDITIONAL PRAISE FOR HOW WELL DO FACTS TRAVEL?

"This fascinating interdisciplinary collection arising from an extraordinary international collaboration is a significant and innovative contribution to a crucial question in science and technology studies: what do we mean by a 'fact'? New light is thrown on this old question by a fresh focus on the transmission and transformation of facts between different contexts, with very welcome attention to neglected subject areas, too. It is an intellectual feast of a volume, with plenty of food for thought for historians, philosophers, and natural and social scientists, especially those who are uncomfortable sitting in conventional disciplinary pigeonholes."

- Hasok Chang, University of Cambridge

"How Well Do Facts Travel? accomplishes the uncommon feat of bringing fresh thinking to a most common phenomenon. Far more than merely contextualizing the use of 'facts' in myriad fields, this eye-opening and deeply thoughtful collection of essays sets facts in motion, models their dynamics, and maps their travels. Adventurous yet grounded, the group of scholars engages and challenges assumptions in disciplines ranging from history and archaeology to economics and policy to biology and design."

- Randall Mason, University of Pennsylvania

"Stemming from a five-year group multidisciplinary research project, *How Well Do Facts Travel?* is a welcome and insightful contribution to the growing bodies of scholarship on comparative and historical epistemology, cultural and technological transfer, social networking, and the philosophies of the social and physical sciences. As with the work of Daston, Poovey, and Latour, this diverse and compelling collection of essays will be as usefully provocative to scholars in the arts and humanities as it will to those in the sciences."

– Mark A. Meadow, University of California, Santa Barbara; Leiden University, the Netherlands

"How Well Do Facts Travel? provides an usual perspective on science and its communication by dealing with the 'lives of facts' and their constitution, development, and circulation, in disciplines as diverse as architecture and social psychology, climate science, and gerontology."

- Staffan Mueller-Wille, University of Exeter

How Well Do Facts Travel?

The Dissemination of Reliable Knowledge

EDITED BY

PETER HOWLETT

London School of Economics

MARY S. MORGAN

London School of Economics



CAMBRIDGE

Cambridge University Press & Assessment 978-0-521-19654-3 — How Well Do Facts Travel? Edited by Peter Howlett, Mary S. Morgan Frontmatter More Information

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314-321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi - 110025, India

103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org Information on this title: www.cambridge.org/9780521196543

© Cambridge University Press 2011

This publication 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 2011

A catalogue record for this publication is available from the British Library

Library of Congress Cataloging in Publication data How well do facts travel? : the dissemination of reliable knowledge / [edited by] Peter Howlett, Mary S. Morgan.

p. cm. ISBN 978-0-521-19654-3 (hardback) ISBN 978-0-521-15958-6 (pbk.) 1. Facts (Philosophy) I. Howlett, Peter, 1962– II. Morgan, Mary S. B105.F3H69 2010 001–dc22 2010031326

> ISBN 978-0-521-19654-3 Hardback ISBN 978-0-521-15958-6 Paperback

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

Contents

List of Figi	ures	<i>page</i> vii
List of Contributors		ix
Editors' Preface		XV
	PART ONE INTRODUCTION	
One	Travelling Facts Mary S. Morgan	3
	PART TWO MATTERS OF FACT	
Two	Facts and Building Artefacts: What Travels in Material Objects? <i>Simona Valeriani</i>	43
Three	A Journey through Times and Cultures? Ancient Greek Forms in American Nineteenth-Century Architecture <i>Lambert Schneider</i>	72
Four	Manning's N – Putting Roughness to Work Sarah J. Whatmore and Catharina Landström	111
Five	My Facts Are Better Than Your Facts: Spreading Good News about Global Warming <i>Naomi Oreskes</i>	136
Six	Real Problems with Fictional Cases Jon Adams	167
	PART THREE INTEGRITY AND FRUITFULNESS	
Seven	Ethology's Traveling Facts Richard W. Burkhardt, Jr.	195

vi	Contents	
Eight	Travelling Facts about Crowded Rats: Rodent Experimentation and the Human Sciences <i>Edmund Ramsden</i>	223
Nine	Using Cases to Establish Novel Diagnoses: Creating Generic Facts by Making Particular Facts Travel Together <i>Rachel A. Ankeny</i>	252
Ten	Technology Transfer and Travelling Facts: A Perspective from Indian Agriculture Peter Howlett and Aashish Velkar	273
Eleven	Archaeological Facts in Transit: The "Eminent Mounds" of Central North America <i>Alison Wylie</i>	301
	PART FOUR COMPANIONSHIP AND CHARACTER	
Twelve	Packaging Small Facts for Re-Use: Databases in Model Organism Biology <i>Sabina Leonelli</i>	325
Thirteen	Designed for Travel: Communicating Facts through Images <i>Martina Merz</i>	349
Fourteen	Using Models to Keep Us Healthy: The Productive Journeys of Facts across Public Health Research Networks <i>Erika Mansnerus</i>	376
Fifteen	The Facts of Life and Death: A Case of Exceptional Longevity <i>David Boyd Haycock</i>	403
Sixteen	The Love Life of a Fact <i>Heather Schell</i>	429
Index		455

Figures

2.1	St. Cecilia in Trastevere in Rome, longitudinal section	
	before the eighteenth-century renovation	page 45
2.2	St. Cecilia in Trastevere in Rome, graphic reconstruction	
	of interior	48
2.3	St Paul's Cathedral, roof truss over the nave	61
2.4	St Paul's Cathedral, loft space above nave, graffito	63
2.5	Westminster Hall, hammer-beam roof structure	65
2.6	Roof structures after Sebastiano Serlio	66
3.1	Parthenon, East Pediment goddesses	74
3.2	Philadelphia, PA. Fountain with allegories of the	
	continents	75
3.3	"Indian Chief," Shobal Clevenger	76
3.4	New London, CT. "Whale Oil Row"	82
3.5	Ionic temple at the Ilissos River at Athens	82
3.6	Philadelphia, PA. Second Bank of the United States	84
3.7	Louisville, KY. Actor's Theatre, formerly a bank	85
3.8	Eutaw, AL. Kirkwood or H. A. Kirksey House	87
3.9	Austin, TX. Neill-Cochran House (governor's mansion)	88
3.10	Orwell, VT. Wilcock Cutts House	89
3.11	Nashville, TN. State Capitol	90
3.12	The Erechtheion on the Acropolis of Athens	91
3.13	Madewood-Plantation-House at Bayou Lafourche	
	near Napoleonville, LA	91
3.14	Marshall, MI. Fitch-Gorham-Brooks House	92
3.15	House in central Massachusetts	93
3.16	Theatre monument on the south slope of Athenian	
	Acropolis	94
3.17	American "Greek" leaf-capital after Lafever	95
3.18	Corinthian capital of Lysicrates Monument at Athens	96

viii	Figures	
3.19	Leaf-capital of the "Tower of the Winds" at Athens	97
3.20	Belle Helene near Napoleonville, LA	99
3.21	"Classical Greek" elements in American nineteenth-century	
	architecture and ornament	101
3.22	Transmissions from ancient Greece to modern America	102
4.1	Table from Manning's original 1891 paper	122
4.2	Screenshot from HEC-RAS	126
4.3a	First presentation of <i>n</i> -value example of Huka Huka river	131
4.3b	Second presentation of <i>n</i> -value example of Huka Huka river	131
7.1	Tinbergen's figure of different bird shapes	203
7.2	Tinbergen's figure of a bird shape traveling in different	
	directions	204
7.3	The book cover of Manning (1967)	207
7.4	A page from the MACOS student workbook on	
	herring gulls	216
8.1	"Rodent universes"	228
8.2	Corridor design	240
8.3	Suite-style design	241
10.1a	Dr. Vadivel, director of extension education TNAU,	
	addressing a meeting of precision farmers	276
10.1b	Precision farmers show TNAU scientist Dr. S. Annadurai	
	and Aashish Velkar their fertigation tank	276
10.1c	Aashish Velkar interviews a precision farmer in his field	277
10.1d	Peter Howlett and Aashish Velkar outside the Erode	
	Precision Farm Producer Company shop	277
10.2	Map showing location of TNPFP project districts	278
13.1	IBM logo composed of individual atoms	351
13.2	A sequence of STM images taken during the construction	
	of the IBM logo	355
13.3	A composite visual display	366
14.1	How facts journey between models	380
14.2	The family tree of the Goodnight Kiss Model	386
15.1	Thomas Parr, by George Powle, after Sir Peter Paul Rubens	10.1
	drypoint, late eighteenth century	404

Contributors

Jon Adams studied philosophy and literature at the universities of Keele and Durham, subsequently working on the "How Well Do 'Facts' Travel?" project at the London School of Economics (LSE) from 2005 to 2009. In 2007, he published *Interference Patterns* about the possibility of making literary criticism into a science. With Edmund Ramsden, he is writing a book about crowding. Having theorised about the process of knowledge popularisation, in 2009, he was offered an opportunity by the LSE to put the theory into practice, and began making short documentary films about academic research.

Rachel A. Ankeny is an associate professor in the School of History & Politics at the University of Adelaide, Australia. From 2000 to 2006 she was director and lecturer/senior lecturer in the Unit for History and Philosophy of Science at the University of Sydney. Her research in the history and philosophy of science includes explorations of the roles of models and case-based reasoning in science, model organisms, the philosophy of medicine, and the history of contemporary life sciences. She also has ongoing research in bioethics and food studies. She was a visiting faculty member associated with the "Facts" project for its duration.

Richard W. Burkhardt, Jr., is professor emeritus of history at the University of Illinois, Urbana-Champaign. His primary research interests are the historical development of evolutionary theory, ethology, zoos, and naturalist voyages. His publications include *The Spirit of System: Lamarck and Evolutionary Biology* (1977, 1995) and *Patterns of Behavior: Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology* (2005). He is writing a book on the early history of the menagerie of the Muséum d'Histoire Naturelle in Paris, the first public zoo of the modern era.

David Boyd Haycock is a Wellcome Research Fellow in the History of Medicine at the University of Oxford; he has held research fellowships at the London School of Economics; The Center for Seventeenth and Eighteenth

x

Contributors

Century Studies at the University of California, Los Angeles; and at Wolfson College, Oxford. His research fields include the histories of early modern science and medicine, as well as the history of art; he is the author of *Mortal Coil: A Short History of Living Longer* (Yale University Press 2008) and *William Stukeley: Science, Archaeology and Religion in Eighteenth-Century England* (The Boydell Press 2002).

Peter Howlett is a senior lecturer in the Department of Economic History at the London School of Economics. He has previously studied the economic aspects of World Wars I and II; international economic growth and convergence since 1870; and the development of internal labour markets, publishing on these topics in journals such as the *Economic History Review* and *Explorations in Economic History*. His involvement in the "Facts" project grew out of an interest in the Indian Green Revolution; his Facts Working Paper (24/08) considers this from the perspective of facts travelling across social science disciplines.

Catharina Landström is a post-doctoral research associate at the School of Geography and the Environment, Oxford University, and is working on environmental knowledge controversies and the science and politics of flood risk. She studied theory of science at University of Göteborg. After post-doctoral research in Australia on the biological control of exotic pests, she returned to Sweden to conduct research on gender and technology. Her publications include "Justifiable Bunnycide: Narrating the Recent Success of Australian Biological Control of Rabbits" (*Science as Culture* 2001) and "A Gendered Economy of Pleasure. Representations of Cars and Humans in Motoring Magazines" (*Science Studies* 2006).

Sabina Leonelli is a research Fellow of the ESRC Centre for Genomics in Society (Egenis) based at the Department of Sociology and Philosophy, University of Exeter. Her research spans the fields of history and philosophy of biology, science and technology studies, and general philosophy of science, to investigate the epistemic and regulatory role of experimental practices such as data sharing, modelling, standardizing, and classifying. She co-edited *Scientific Understanding: Philosophical Perspectives* (Pittsburgh University Press 2009). Following her work for the "Facts" project, she is currently exploring the use of e-Science tools, such as bio-ontologies and databases, to carry out data-driven and translational research on model organisms.

Erika Mansnerus received her PhD from the University of Helsinki in 2007 and, after working on the "Facts" project, became a British Academy

Contributors

post-doctoral Fellow, dividing her time between the Centre for Research in the Arts, Social Sciences and Humanities (CRASSH) at the University of Cambridge and LSE Health. Her disciplinary background is in sociology and philosophy of science and science and technology studies. Her current research focuses on how computational tools (models, simulations) are utilised in public health decision-making processes, especially in pandemic preparedness planning. Her most recent publication is "The Lives of Facts in Mathematical Models: A Story of Population-Level Disease Transmission of *Haemophilus influenzae* Type B Bacteria" (*BioSocieties* 2009).

Martina Merz is a professor of the Swiss National Science Foundation (SNSF) at the Institute of Sociology, University of Lucerne, Switzerland. She is also a guest professor at the Technology and Society Lab, Swiss Federal Laboratories for Materials Science and Technology (Empa), St. Gallen. Her area of expertise is primarily in the social studies of science and technology. She currently heads the research project "Epistemic Practice, Social Organization, and Scientific Culture: Configurations of Nanoscale Research in Switzerland" (funded by SNSF), and is a collaborator of the National Centre of Competence in Research "Iconic Criticism: The Power and Meaning of Images."

Mary S. Morgan is professor of history and philosophy of economics at the London School of Economics and the University of Amsterdam. She has published widely on topics ranging from statistics to experiments to narrative, and from social Darwinism in late-nineteenth-century America to game theory in the Cold War. Her major works include *The History of Econometric Ideas* (1990) and *Models as Mediators* (1999 with Margaret Morrison), and her account of scientific modelling is forthcoming in *The World in the Model*. She is currently engaged in the research project "Re-thinking Case Studies Across the Social Sciences" as a British Academy–Wolfson research professor.

Naomi Oreskes is professor of history and science studies at the University of California, San Diego. Her research focuses on the historical development of scientific knowledge, methods, and practices in the earth and environmental sciences. She is best known for her work on climate change (which was cited in the film *An Inconvenient Truth*). Her publications include *The Rejection of Continental Drift* (1999), "The Scientific Consensus on Climate Change" (*Science* 2004), and *Merchants of Doubt* [with Erik M. Conway] (2010); and she co-edited *Plate Tectonics: An Insider's History of the Modern Theory of the Earth* (2001).

Edmund Ramsden is a research Fellow at the Centre for Medical History at the University of Exeter working on a Wellcome Trust–funded project on

xi

xii

Contributors

the history of stress. His research interests are in the history and sociology of the social and biological sciences and their relations, with a particular focus on the behavioural and population sciences. As a result of his postdoctoral work on the "Facts" project, he is currently writing a book with Jon Adams on John B. Calhoun's experiments.

Heather Schell is an assistant professor at George Washington University, where she directs the First-Year Writing Program and teaches courses on popular culture. Her work focuses on the lines of communication between the worlds of popular culture and biological science, examining such topics as the understanding of global pandemics, the effect of using epidemiological models to understand human prehistory, and the increasing popularity of predators.

Lambert Schneider is a classical archaeologist and has recently retired as a professor at Hamburg University; in 1996, he was a scholar at the J. P. Getty Research Institute in Santa Monica, California. His main research fields include theory and methodology in archaeology, gender studies in Greek culture and its modern applications, Thracian and Scythian imagery, Greek sculpture, late Roman imagery, and re-use of ancient Greek cultural forms in modern societies. His publications include *Die Akropolis von Athen* [with Ch. Höcker) (Darmstadt 2001) and *Die ungezähmte Frau. Weibliche Antibilder in Mythos und Bildkunst der Griechen* [with M. Seifert] (Stuttgart 2010).

Simona Valeriani has a background in architecture, the history of architecture, and building archaeology, earning her PhD in Berlin (2006); she joined the "Facts" project in 2005. Currently, she is analysing how scientific and technical knowledge were accumulated and transmitted in late medieval and early modern Europe and how the two spheres interacted as part of the LSE project "Useful and Reliable Knowledge in Global Histories of Material Progress in the East and the West" (URKEW, financed by the European Research Council). Her publications include the book *Kirchendächer in Rom. Zimmermannskunst und Kirchenbau von der Spätantike bis zur Barockzeit* (2006).

Aashish Velkar is an LSE Fellow in the Department of Economic History at the London School of Economics. He has previously studied measurement standards in historical markets and the role of economic groups in setting standards and reducing transaction costs, publishing this work in *Enterprise* & *Society* and *Business History*. His involvement with the "Facts" project led to a publication about how "facts" about quality travel within grain markets

Contributors

(*Graduate Journal of Social Science* 2009). He is currently working on the role of measurement systems in the foundations of markets, using the case study of international grain markets in the nineteenth century.

Sarah J. Whatmore studied geography at University College, London, and worked in policy research at the Greater London Council. She is currently professor of environment and public policy at the University of Oxford. Her research addresses the interface between cultural geography, political theory, and science and technology studies. She is the author of *Hybrid Geographies* (Sage 2002) and joint editor, with Bruce Braun, of *Political Matter: Technoscience, Democracy and Public Life* (University of Minnesota Press 2010). Her current research is on environmental knowledge controversies and the science and politics of flood risk.

Alison Wylie is professor of philosophy and anthropology at the University of Washington. She is a philosopher of science who works on philosophical issues raised by archaeological practice and by feminist research in the social sciences: ideals of objectivity, the role of contextual values in research practice, and models of evidential reasoning. She has published widely on these topics, including *Thinking from Things: Essays in the Philosophy of Archaeology* (2002), *Value-free Science?* (2007, edited with Kincaid and Dupré) and the Sage *Handbook of Feminist Research* (2007). She is currently working on a monograph, *Standpoint Matters, in Feminist Philosophy of Science.*

Editors' Preface

Why write about facts? Facts are everywhere. They litter the utterances of public life as much as the private conversations of individuals. They frequent the humanities and the sciences in equal measure. Facts, understood in their everyday sense as bits of knowledge, make their appearances across the terrains of knowledge. As such, facts are not only expressed in verbal claims and counter-claims, but in all sorts of things and in all sorts of ways: in the drawings of insects, in the maps of our globe, in the beams of buildings, or in the shards of our forebears. Facts may be tiny, and on their own seem quite trivial (as a piece of genetic information about a plant), or important and earth-saving (as our temperature measures of climate change). And, of course, as we all know, individual facts may be strong and secure bits of knowledge, or sometimes hard to distinguish from fictions, or shaky to the point of falsehood. But their very ubiquity, in conjunction with the many forms they take and the different qualities they hold, tells us not only why it is difficult to form general but sensible answers in response to seemingly simple questions about facts, but why it is important to do so.

We may take this notion of facts – as pieces of knowledge – for granted. But it is equally pertinent for this book that facts are also recognised to be *separable* bits of knowledge that can be abstracted from their production context and shared with others. And because they are such independent pieces of knowledge, facts have the possibility to travel, and indeed some circulate freely, far and wide. So, how do such bits of knowledge – whatever their appearance and size – circulate while maintaining their integrity as facts? For, of course, it matters that travelling facts do hold their knowledge: They are not just an essential category of the way we talk in modern times, but provide one of the forms of knowledge upon which we act. This is one way we explore our question: "How *well* do facts travel?" *Well enough* to act upon them: Facts need to retain their integrity if we are to act upon them safely. Yet our recognising that facts have travelled well depends on us noticing how certain facts get used again and again, by other communities

xvi

Editors' Preface

or for other purposes. This provides our second insight into the problem of understanding *travelling well*. Facts travel well if their travels prove fruitful. So these two senses of travelling well, with integrity and fruitfully, frame our answers to the question "How well do facts travel?"

The essays here do not adopt any one theoretical or disciplinary approach. We are not committed as a group to any particular sociological theory about knowledge transfer, nor to the establishment of a philosophical test of the truth or falsity of facts, nor to the provision of an epistemic history of facts as a category. The essays here are written by those with disciplinary backgrounds in the natural and social sciences and the humanities (and many of our authors have training in more than one academic discipline) and they take as subjects cases from the sciences, the humanities, and the arts. But like a number of other recent volumes that cross this traditional science-arts divide - such as Lorraine Daston's Things That Talk (2004) and Angela Creager et al.'s Science Without Laws (2007) - we take a relaxed, open view about how to study knowledge, one that coalesces around a particular object of study, facts, unbounded by a disciplinary framework. So, the reader will find here a variety of resources used for thinking about travelling facts offered from several disciplinary approaches and in a number of different fields and contexts. But we do share common grounds: The essays in this book address a common question, share an understanding of what facts are and a framework for answering questions about what it means for facts to travel well. They all address directly the lives of facts, and only indirectly other aspects of facts, such as their production, their context, their value, and the communities they pass through.

The answers to our question "How well do facts travel?" are given individually and differently by each author, and each writes from their own theoretical focus. But although each author has followed their own stories, they have all contributed to the shared analysis that shapes our answers. Each essay answers our question in a different way, ways that succeed in adding twists to our agenda, or in shaking our framework to offer us new perspectives, or in creatively turning the way we understand the problem of exploring how well facts can travel. The presence – within each essay – of these multiple contributions made the imposition of part headings in the volume somewhat arbitrary, and the essays cannot be as neatly docketed as our headings suggest. Rather, these headings are indicative of something special that we have found in each of those essays. But as the index makes clear, the elements of our shared thinking about what it means to travel well are either centrally found in each essay or else have crept into the subplots or side analyses in informative ways. The book itself has been strongly

Editors' Preface

supported by our editor, Scott Parris, and our publishers, Cambridge University Press, and we thank them and their readers and referees for their penetrating comments on the book proposal and manuscript.

As a research programme, "How Well Do Facts Travel?" grew into one of the most enjoyable and one of the most intellectually exciting experiences of our careers. Between late 2004 and the end of 2009, we were able to work - not all at once, but over the period - with a group of young researchers who became close colleagues: post-docs Simona Valeriani, Edmund Ramsden, Erika Mansnerus, Sabina Leonelli, and Jon Adams; and PhD students Aashish Velkar, Ashley Millar, Julia Mensink, and Albane Forestier. These were all wonderful to work with, but we might just mention the two longest-serving post-docs: Simona Valeriani helped in organising the project and getting this book into production, and Jon Adams created our public face of posters, Web pages, and logo. We would also like to thank Aashish Velkar and Eric Golson for their sterling work in preparing the index for this volume, and Rajashri Ravindranathan for her patience in chaperoning our book through the production process. We were delighted when the project was recognised at the Times Higher Education Awards as being amongst the best "research projects of the year" in 2008. An account of the project, giving its history, descriptions of workshops and a British Academy congress, the development of its logo, and its working papers can be found at: http://www2.lse.ac.uk/economicHistory/Research/facts/Home.aspx.

During those years we enticed a small number of senior visitors to spend time with the project group at LSE and to contribute essays to this volume. We also persuaded a much larger number of participants to attend our seven workshops, and would particularly like to thank Marcel Boumans and Harro Maas, who loyally took part in most of them and contributed some wonderful commentaries on these occasions. We gained huge insight from working with all these visitors: academics, museum curators, and professionals from many fields. We had the good fortune to be strongly supported by our Department of Economic History, and by a particular group of colleagues therein: especially Patrick Wallis, who was as closely engaged with the project as any of us; Tracy Keefe, who calmly and efficiently administered the project; and Max Schulze, the late Stephan (Larry) Epstein, Paul Johnson, and Rick Steckel, who helped us get the project off the ground. We thank the British Academy, who gave us and our sister project on "The Nature of Evidence" at University College London a public space to report the project in 2007. Last, but no means least, we were generously supported by Sir Richard Brook and Sir Geoffrey Allen at the Leverhulme Trust, which (in conjunction with the ESRC) funded the project (grant F/07004/Z).

xvii

xviii

Editors' Preface

Their commitment to these "blue skies" programmes is truly admirable. We thank them all, and most heartily.

We hope that the project has proved as exciting to our many visitors as it has been to us, and that it will equally attract the readers of this volume to recognise the challenge posed in our research question and to share our own engagement with the nature of facts. We appreciate the ambition of the Leverhulme Trust, who want their programme grants to "make a difference." At the least, we are confident that the project was instrumental in turning some smart young researchers into a cadre of really good ones. But our broader ambition might be described thus: that all those who make contact with our research – via the project or this volume – will, as a result, come to think differently about those ordinary, but most important, bits of knowledge we know as "facts."

Peter Howlett and Mary S. Morgan, 2010