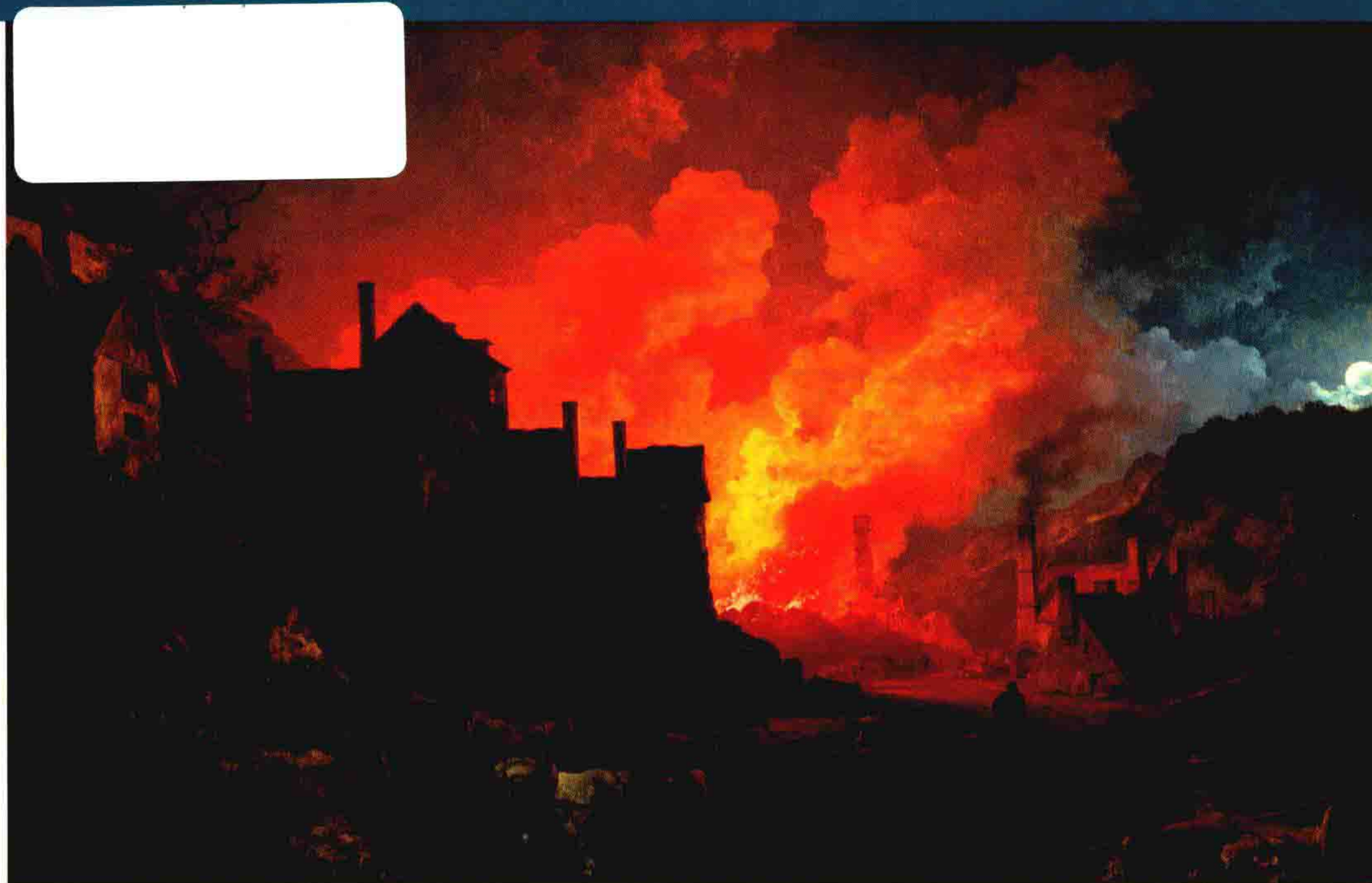


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A COMPANION TO
GLOBAL
ENVIRONMENTAL
HISTORY

EDITED BY

J. R. McNeill and
Erin Stewart Mauldin

 WILEY-BLACKWELL

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Editorial Offices

350 Main Street, Malden, MA 02148-5020, USA

9600 Garsington Road, Oxford, OX4 2DQ, UK

The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

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To Julie, once more
And to Daniel

Notes on Contributors

Jordan Bauer is a PhD candidate in history at the University of Houston and is currently working on her dissertation, a history of urban growth and politics in post-1945 Raleigh-Durham.

Peter Boomgaard is Professor of Economic and Environmental History of Southeast Asia, University of Amsterdam, and Senior Researcher, Royal Netherlands Institute of Southeast Asian and Caribbean Studies (KITLV), Leiden. Among his publications are *Frontiers of Fear: Tigers and People in the Malay World, 1600–1950* (2001) and *Southeast Asia: An Environmental History* (2007). He is currently writing a book on the forests of Java between 1500 and 1950.

Stephen Brain is Assistant Professor of History at Mississippi State University. He is the author of *Song of the Forest: Russian Forestry and Stalinist Environmentalism, 1905–1953* (2011). He is currently conducting research for a manuscript about the environmental history of the White Sea and the fishermen who worked there, the Russian Pomor.

Jane Carruthers is Research Professor of History at the University of South Africa. Her main interests lie in environmental history, the history of national parks, and the biological sciences in South Africa, and she has published widely in these fields.

Paul D'Arcy is a Senior Fellow in the Department of Pacific and Asian History of the College of Asia and the Pacific at the Australian National University. He is author of *The People of the Sea* (2006). He has just finished editing a collection on Asian investment and engagement with Pacific Island nations, and is currently working on his next book, *Warfare and State Formation in Hawai'i: The Limits of Coercion in the Pre-Modern World*.

Daniel Headrick is Professor Emeritus of History and Social Science at Roosevelt University in Chicago. He is the author of several books, most recently *Technology: A World History* (2009) and *Power over Peoples: Technology, Environments, and Western Imperialism, 1400 to the Present* (2010). He is currently writing an environmental history of the world since the Stone Age.

J. Donald Hughes is John Evans Professor of History Emeritus at the University of Denver. He lives in Princeton, New Jersey. Author of *An Environmental History of the World* (2nd edition, 2009) and *What Is Environmental History?* (2006), he is a founding member of the American Society for Environmental History (ASEH), the European Society for Environmental History (ESEH), and the Association of East Asian Environmental Historians (AEAEH).

Paul Josephson is Professor of History at Colby College. He is a specialist in the history of big science and technology. He has written several books in environmental history including *Industrialized Nature* (2002), *Resources under Regimes* (2005), and *Motorized Obsessions* (2007). He is currently writing a history of the environmental impact of Soviet arctic conquest.

Nancy Langston is Professor in the Nelson Institute for Environmental Studies and the Department of Forest and Wildlife Ecology at the University of Wisconsin-Madison. She is author of *Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West* (1995), *Where Land and Water Meet: A Western Landscape Transformed* (2003), and *Toxic Bodies: Hormone Disruptors and the Legacy of DES* (2010). She is currently editing *Environmental History* and working on a history of boreal forests.

Bao Maohong is Associate Professor of History at Peking University, China. He is the author of *Forest and Development: Deforestation in the Philippines* (2008), *Environmental Governance in China and Environmental Cooperation in Northeast Asia* (2009), and *The Origins of Environmental History and Its Development* (2012). He is currently working on the transformation of East Asia from the perspective of environmental history.

Robert B. Marks is Richard and Billie Deihl Professor of History at Whittier College. He is the author of *Tigers, Rice, Silk, and Silt: Environment and Economy in Late Imperial South China* (1998) and *The Origins of the Modern World: A Global and Ecological Narrative from the Fifteenth to the Twenty-First Century* (2007). His latest book is *China: Its Environment and History* (2012).

Joan Martinez-Alier is Professor of Economics and Economic History and Researcher at ICTA at the Autonomous University of Barcelona. He is the author of *Ecological Economics: Energy, Environment and Society* (1990) and *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation* (2002). He is a founding member and past president of the International Society for Ecological Economics. He is also coeditor of *Getting Down to Earth: Practical Applications of Ecological Economics* (1996), *Rethinking Environmental History: World-System History and Global Environmental Change* (2007), and *Recent Developments in Ecological Economics* (2008).

Erin Stewart Mauldin is a PhD candidate in US environmental history at Georgetown University. She is currently writing her dissertation on the environmental history of the Reconstruction period in the southern United States, exploring the ecological legacies of the American Civil War and its impacts on southern agriculture and economy during the late nineteenth century.

Meredith McKittrick is Associate Professor in the Department of History and the Edmund A. Walsh School of Foreign Service at Georgetown University. She is the author of *To Dwell Secure: Generation, Christianity and Colonialism in Ovamboland* (2002) and numerous articles on the history of Namibia. She is currently writing a book about riparian farming communities in southwestern Africa.

J. R. McNeill is Professor of History and University Professor at Georgetown University. He is the author of *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914* (2010) and *Something New under the Sun: An Environmental History of the Twentieth-Century World* (2000), and coauthor of *The Human Web* (2003) and *A Short History of the Anthropocene* (2013). He served as president of the American Society for Environmental History from 2011 to 2013.

Martin V. Melosi is Hugh Roy and Lillie Cranz Cullen Professor and Director of the Center for Public History at the University of Houston. He is the author or editor of 19 books including his most recent, *Precious Commodity: Providing Water for America's Cities* (2011). He has also completed *Atomic Age America and the World* (2012) and has started work on *An Island Not Too Far: Fresh Kills and Staten Island*.

Alan Mikhail is Assistant Professor of History at Yale University. He is the author of *Nature and Empire in Ottoman Egypt: An Environmental History* (2011). He is currently writing a book about the changing relationships between humans and animals in Ottoman Egypt and also editing a collection of essays on Middle East environmental history.

Shawn W. Miller is Associate Professor of History at Brigham Young University. He is the author of *Fruitless Trees: Portuguese Conservation and Brazil's Colonial Timber* (2000) and *An Environmental History of Latin America* (2007). He is currently researching the environmental history of the street and the automobile in Rio de Janeiro.

David Moon is Anniversary Professor in the Department of History at York University, UK. He researches in Russian and transnational environmental history. He has published several articles, and is completing a monograph on the environmental history of the steppes. His earlier work focused on the Russian peasantry, but he also investigates connections between the Russian steppes and the North American Great Plains. He is an active member of the European Society for Environmental History.

Micah S. Muscolino is Associate Professor of History at Georgetown University. He is the author of *Fishing Wars and Environmental Change in Late Imperial and Modern China* (2009). He is currently writing a book on the environmental history of World War II in North China's Henan province.

José Augusto Pádua is Professor of Brazilian Environmental History at the Institute of History/Federal University of Rio de Janeiro, where he also coordinates the Laboratory of History and Ecology. Since 2010, he has been president of the Brazilian Association of Research and Graduate Studies on Environment and Society (ANPPAS). His most recent book, in association with J. R. McNeill and Mahesh Rangarajan, is *Environmental History: As If Nature Existed* (2010).

Liza Piper is Associate Professor of History at the University of Alberta. Her book, *The Industrial Transformation of Subarctic Canada* (2009), examines the role of industrial resource exploitation and science in the twentieth-century transformation of subarctic environments. Her current research considers how disease and climate have changed human relations to nature in the Subarctic and Arctic since the nineteenth century.

Joachim Radkau was Professor of Modern History at Bielefeld University, Germany, until his retirement in 2008. His most important publications on environmental history in English include *Nature and Power: A Global History of the Environment* (2008) and

Wood: A History (2011). In 2011 he published *Die Ära der Ökologie: Eine Weltgeschichte*, which is to be translated into English.

Libby Robin is an environmental historian at the Australian National University and at the National Museum of Australia, Canberra. She is Guest Professor at the Royal Institute of Technology, Stockholm. Her books include *How a Continent Created a Nation* (2007) and *Ecology and Empire: Environmental History of Settler Societies* (coedited with Tom Griffiths). She is currently working (with Sverker Sörlin and Paul Warde) on *Environmental Futures*, an anthology of the literature of global change.

Alan Roe is a PhD candidate in Russian environmental history at Georgetown University. He is currently researching his dissertation on outdoor recreation in the Soviet Union. He is coeditor of the *Routledge Reader for World Environmental History* (forthcoming).

Edmund Russell is a Professor in the Department of Science, Technology, and Society and the Department of History at the University of Virginia. He is the author of *Evolutionary History: Uniting History and Biology to Understand Life on Earth* (2011) and *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (2001), and coeditor (with Richard P. Tucker) of *Natural Enemy, Natural Ally: Toward an Environmental History of War* (2004).

Richard P. Tucker is Adjunct Professor of Environmental History at the University of Michigan. He is the author of *Insatiable Appetite: The United States and the Ecological Degradation of the Tropical World* (2000), and coeditor with Edmund Russell of *Natural Enemy, Natural Ally: Toward an Environmental History of War* (2004). He is currently writing a book on the military and the environment in the contemporary world.

Sam White is Assistant Professor at Oberlin College, where he teaches courses on global and environmental history. He is the author of *The Climate of Rebellion in the Early Modern Ottoman Empire* (2011). He is currently researching the impact of climate on the first European colonies in North America.

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When editors are rash enough to agree to assemble a book that depends on original contributions from a roster of 28 authors, the probability that something will go badly wrong is considerable. Our authors defied the odds, writing their chapters promptly, answering our queries swiftly, and tolerating tweaks to their pearly prose with equanimity worthy of Marcus Aurelius or a Zen master. We thank them for that.

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J. R. McNeill
Erin Stewart Mauldin

Global Environmental History: An Introduction

J. R. McNeill AND ERIN STEWART MAULDIN

Since the 1970s, environmental history has evolved into a self-conscious and self-aware scholarly field that boasts journals, university programs, and international organizations devoted to its practice and promotion. Global environmental history, however, is much younger. Although a dynamic field with a steadily increasing number of practitioners, global environmental history remains, as yet, unclear in its structure, shape, and place within the historical profession.

This volume aims to orient readers to the fast-growing arena of scholarly inquiry known as global, or world, environmental history. It is a collection of new essays by 28 scholars from all six inhabited continents, many of whom have been instrumental in the establishment of environmental history. It surveys past developments in the field, current contours of scholarship, and possible approaches for the future. The *Companion to Global Environmental History* is intended to be useful not only to people who are coming to environmental history for the first time – serving as the equivalent of a road map to the field – but also to people who have long labored in one province of environmental history, and, for whatever reason, seek to broaden their horizons and begin to develop comparative perspectives – or deepen their existing ones.

What Is Environmental History?

Like every other subset of history, environmental history represents different things to different people. Our preferred definition of the field is the study of the relationship between human societies and the rest of nature on which they depended. Humankind has always been a part of nature, albeit a distinctive part. While the natural world has shaped and conditioned the human experience, over time, humans have made increasingly far-reaching alterations to their surroundings. Environmental history recognizes that the natural world is not merely the backdrop to human events, but evolves in its own right, both of its own accord and in response to human actions. Nature is now both natural and cultural, at least in most places on Earth. Indeed human influence upon nature has attained such proportions that some scholars maintain life on Earth has entered a new geological era, the Anthropocene. This term, while gaining acceptance, is

by no means conventional yet. But its increasing use signifies growing awareness in scientific circles of the burgeoning human environmental impact.¹

The vast scope of environmental history invites many and varied approaches. There are, we think, three chief areas of inquiry, which of course overlap and have no firm boundaries. First is the study of material environmental history, the stories of human involvement with forests and frogs, with cholera and chlorofluorocarbons. This entails the examination of human impact on the physical environment as well as nature's influence upon human affairs, each of which is always in flux and always affecting the other. This form of environmental history puts human history in a fuller context, that of the Earth and life on Earth, and recognizes that human events are part of a larger story in which humans are not the only actors. A full extension of this principle is the so-called "Big History" of David Christian and Fred Spier,² which places humans into the unfolding history of the universe, and finds recurrent patterns over the largest timescales. In practice, however, most of the environmental history written in the material vein stresses the economic and technological side of human actions, and thus concentrates on the last 200 years when industrialization (among other forces) greatly enhanced humankind's power to alter environments.

Second is a form of cultural and intellectual history. It concerns what humans have thought, believed, and written that treats relationships between society and nature. It emphasizes representations and images of nature in art, literature, religion, and oral traditions, how these have changed, and what they reveal about the societies that produced them.³ The great majority of cultural environmental history is drawn from published texts, as with intellectual history, and often treats the works of influential (and sometimes not-so-influential) authors from Lucretius and Mencius to St. Francis to Mohandas K. Gandhi. This sort of environmental history tends to focus on individual thinkers, but it can also extend to the study of popular environmentalism as a cultural movement. The largest debate within this wing of environmental history, however, is the relative impact of various religio-cultural traditions on the natural world. This scholarship evaluates the texts and practices of Judeo-Christian, Islamic, East Asian, and indigenous traditions, attempting to determine their effects on the environment.⁴

The third main form is political and policy-related environmental history. This concerns the history of deliberate human efforts to regulate the relationship between society and nature, and between social groups in matters concerning nature. Although there are early examples of soil conservation, air-pollution control, and royal efforts to protect charismatic animals for a monarch's hunting pleasure, usually policy-related environmental history extends back only to the late nineteenth century. Only in the era since 1880 have states and societies mounted systematic efforts to regulate interactions with the environment generally. Between 1880 and 1965 these efforts were normally spasmodic and often modest in their impacts, so much of this sort of environmental history deals with the decades since 1965, when both states and explicitly environmental organizations grew more determined and effective in their interventions. Political environmental history is the approach that most easily dovetails with mainstream history for it uses the nation-state as its unit of analysis. Other types of environmental history tend to ignore political boundaries.

In practice, environmental history is all this and much more. More than most varieties of history, environmental history is an interdisciplinary project. Many scholars in the field trained as archeologists, geographers, or historical ecologists. In addition to the customary published and archival texts of the standard historian,

environmental historians routinely use the findings culled from bio-archives (such as pollen deposits which can tell us about former vegetation patterns) and geo-archives (such as soil profiles that can tell us about past land-use practices). The subject matter of environmental history is often much the same as that in historical geography or historical ecology, although the choice of sources emphasized normally differs. An illustration is the field of climate history, which is pursued by scholars from at least half a dozen disciplines, including text-based historians. Textual historians have found useful records for climate history going back many centuries, for example, the dates of grape harvests in European vineyards. Compiling and comparing these dates over centuries allows historians to draw strong inferences about warming and cooling trends.⁵

Global Environmental History

Global environmental history has a compelling logic but presents a daunting aspect. Many ecological processes are global in scope, such as climate change or sea-level rise, and many others are found here and there around the world, such as deforestation and urban air pollution. Several of the cultural trends concerning the environment have been nearly global too, most obviously the modern, post-1960s, expression of ecological anxiety, although of course it finds different forms in different cultures.⁶ But global-scale environmental history, like global and world history in general, is built upon the foundation of local work and regional surveys. No single historian can master the details of soil history or the history of water pollution around the world, just as no one can fully master the global history of wages and prices, or of women's movements. All global and world history presents this problem, and for many historians this alone suffices to make the venture illegitimate.

A moment's reflection, however, should redeem the ambition of global-scale history. Something is gained and something lost with any choice of scale. If historians required true mastery of their subjects, they could aim no more broadly than autobiography. There is no purely intellectual reason to prefer microhistory to macrohistory, whether environmental or otherwise. But it remains true that, practically speaking, bringing coherence to the subject of the global history of air pollution is much more difficult than, say, to the history of the killer fog of London in December 1952. Global environmental history, then, is often a process of stitching together scholarship from multiple geographic scales and perspectives to craft a narrative or an analysis of global ecological change.

For decades the only global environmental history syntheses came from authors who were not professional historians, and therefore less inhibited by their training and the anti-global expectations of the historical profession. British geographers and a former civil servant of the United Kingdom wrote the first notable general surveys, the former in sober style and the latter with the panache of a muckraking journalist.⁷ Sociologists too joined the fray.⁸ Eventually natural scientists took aim at global historical treatments of subjects such as nitrogen and soil.⁹ A multidisciplinary magnum opus from 1990, B. L. Turner et al.'s *The Earth as Transformed by Human Action*, helped spur historians to try their hand at global environmental history.¹⁰

Professional historians began by taking slices of the whole, such as the books on global fire history by Stephen Pyne, or environmentalism by Ramachandra Guha.¹¹ Pyne's work,

which grew out of his earlier studies of fire in American history, sought to discuss every aspect of the human relationship with fire, from cooking and the physiology of digestion to the cultural perceptions of wildfires. Guha's short treatise on modern environmentalism showed the contrasts between the social movements that go by that name in, above all, India and the US. Joachim Radkau was perhaps the first to bring the sensibilities of the historian to general global-scale environmental history in his *Natur und Macht: Eine Weltgeschichte der Umwelt*.¹² His was not a survey aiming at worldwide coverage, but a sprawling series of soundings and reflections on everything from animal domestication to contemporary tourism in the Himalaya. It reads a bit like Arnold Toynbee's *A Study of History* with its bold comparisons and juxtapositions across time and space. Unlike Toynbee, Radkau was reluctant to offer grand pronouncements, preferring to honor historians' traditional respect for the particularities of different times and places.¹³

A small platoon of professional historians brought out global-scale environmental histories of one sort or another around the same time as Radkau. Brief surveys, apparently intended for classroom use, poured forth from Europe and the US.¹⁴ A pair of longer studies took on slices of time that, their authors claimed, exhibited some coherence: John F. Richards surveyed the early modern centuries so strongly affected by European expansion, and J. R. McNeill portrayed the twentieth century as an era of unprecedentedly tumultuous environmental change.¹⁵ Still others presented thematic slices of global environmental history, penning accounts of deforestation or malaria over several millennia.¹⁶ Wide-ranging anthologies added to the sudden outpouring – and sidestepped the main limitation of global history, the inability of any single author to know enough.¹⁷ The British Empire, on which the sun famously never set, provided a framework that added coherence to global environmental history as shown in the overview by William Beinart and Lotte Hughes.¹⁸ To date no one has chosen to follow their example with respect to any other modern empires. However, imperialism more generally served as the occasion for one of environmental history's foundational texts, Alfred W. Crosby's *Ecological Imperialism*, which, if it isn't global environmental history, surely comes very close to it. Crosby sought to explain the successes and failures of European imperial ventures from the Crusades and Greenland Norse onward in environmental terms.¹⁹

So global environmental history has come a long way in a brief time. The persistent presence of environmental issues in modern life has made environmental history a permanent fixture of historiography rather than a passing fancy. The growing salience of climate concerns, deforestation, water shortages, and loss of biodiversity has convinced some historians, previously working far from environmental history, that it is no longer appropriate to write history without taking the environment, especially climate change, into account.²⁰ Furthermore, global-scale environmental history has benefited from the rise of world or global history, an intellectual response to the recent surge of globalization and, in the US at least, a practical response to political pressures upon school curricula.²¹ But, as always, further opportunities abound. Some day someone will write a global environmental history of railroads, of mining, of war, of cattle, of the oceans, of religion, of odors, of things as yet unimagined.

The Companion

Although there are countless ways in which one could organize the endeavor of global environmental history, this volume combines temporal, geographic, and thematic approaches. With contributions from an international roster of historians, the content of

the chapters that follow is as diverse as the approaches to environmental history. Some authors emphasize natural and cultural history, while others focus on political and economic developments. Some chapters are surveys, others are historiographical, and many are a mix of the two.

Each author was given the freedom to write his or her chapter as the subject required. Consequently, there are occasional overlaps in the subjects under discussion. For instance, the impact of the first human migrations into the Americas appears in four chapters, although the authors approach the subject with differing purposes and with sometimes contrasting conclusions. Readers will also notice that some subjects recur with regularity throughout the *Companion*, such as agriculture, industrialization, and biological exchanges. That is as it should be: these are central themes for environmental history. In this volume you will find regions, themes, and time periods not as yet well represented in the historiography, new evidence for old debates, and inventive new ways of approaching the practice of environmental history.

The *Companion* is split into four parts. Part I, entitled “Times,” shows how the issues and trajectories of the relationship between society and nature have evolved over time, and how they differ from one period to the next. Authors cover major milestones in human history, helping readers develop a sense of the deep past so often neglected in environmental, and indeed in all, history. Chapters in this section discuss the latest findings in the study of human origins, the methods by which environmental historians and other scholars understand ancient landscapes, and how environmental factors contributed to the rise and fall of human societies over time. The scope of this section is vast, and the authors’ work demonstrates how the coevolution of humans and nature over a very *longue durée* can illuminate not only current environmental issues, but also political and economic ones.

The next section, Part II, is entitled “Places.” It is a series of regional or national narratives and historiographies that show how the pieces of the global puzzle fit together. Place, although it can be defined and construed in many ways and at many scales, is usually a central concept for environmental history. In practice, most environmental history is written about specific places, some as small as a few farms, others as large as a continent. We felt that it is important to include the regional and local, for they are the foundation of the global. Many areas around the world have experienced similar historical processes that drive ecological change – biological invasions, colonialism, industrialization, conservation movements – and this section allows readers to see how geographical variations in climate, terrain, and availability of natural resources, as well as cultural patterns, political frameworks, and economic structures, have influenced the map of environmental change. Not every country or region is represented; readers will note, for example, the absence of Europe and India. In chapters that cover areas of the globe which have rich historiographies, such as the US, authors have tried to point to new issues for debate or study. Other chapters, however, provide the first surveys of areas such as the Arctic and the Middle East, regions of the globe which have yet to receive their due from environmental historians.

The third part of the *Companion* moves away from chronological and geographical organization. Here, each author examines one thematic issue across the globe and across time. There are chapters which outline the human relationship to natural elements, such as forests, rivers, and oceans, as well as chapters on how the evolution of technology, warfare, and industrial processes altered the world’s environment. Authors focus partly

on the biogeophysical changes themselves, but also upon the social, economic, and political forces behind them. Some chapters present familiar themes, such as fishing or agriculture, but use an expanded temporal or geographical scope to present readers with new, global perspectives. Other chapters, such as those on grasslands and evolution, challenge readers with unfamiliar comparisons and unfettered imagination.

The final section of the *Companion*, Part IV, surveys different types of environmental thought and action around the world, giving readers a sense of the variety of cultural, intellectual, and political engagements with the environment in modern times. While the first two parts have significant chronological depth, Parts III and IV exhibit a strong bias toward the modern period (since 1500 CE). This is partly a reflection of the current literature in the field, and partly due to the practicalities of scholarship in global environmental history. This section contains in-depth chapters on two of the largest and fastest-growing economies in the world – Brazil and China – while the remaining two chapters highlight broader themes within environmentalism and environmental thought.

Global environmental history is a fast-moving field with porous boundaries and a wide range of interdisciplinary connections. The chapters in this volume are by no means comprehensive, and do not provide complete coverage of all themes and all places, but the chapters help provide an understanding of how people actually work in environmental history and reflect the major approaches within the field's scholarship. We hope that all readers of the *Companion* will find something illuminating and entrancing in global environmental history as it is currently practiced. Consciously or unconsciously, scholars provide scholarship for the times in which they live. Whether or not we ought to understand our own times as the Anthropocene, we live in an age of conspicuous environmental change, of pinching environmental constraints upon people's lives, and of fast-track globalization. This *Companion* aims to offer a guide to environmental history scholarship written in, and for, our ecologically dynamic and globalizing times.

Notes

- 1 See for example the special issue of the *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences* 369, 2011, which is devoted to the concept of the Anthropocene.
- 2 D. Christian, *Maps of Time: An Introduction to Big History*, Berkeley, University of California Press, 2004; F. Spier, *The Structure of Big History: From the Big Bang until Today*, Amsterdam, University of Amsterdam Press, 1996; F. Spier, *Big History and the Future of Humanity*, Oxford, Wiley-Blackwell, 2011.
- 3 Remarkably the most comprehensive work in this vein as regards the Western world was written over 40 years ago: C. Glacken's *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*, Berkeley, University of California Press, 1967. Glacken's massive work explored the conceptions of nature among several dozen prominent writers from ancient times through the European Enlightenment. Other examples include D. Worster's *Nature's Economy: A History of Ecological Ideas*, New York, Cambridge University Press, 1985, and P. Coates, *Nature: Western Attitudes since the Ancient Times*, Cambridge, Polity, 1998.
- 4 See, for example, L. White, "The Historical Roots of Our Ecologic Crisis," *Science* 155, 1967, pp. 1203–7; Y. Tuan, "Discrepancies between Environmental Attitude and Behaviour: Examples from Europe and China," *Canadian Geographer* 3, 1968, pp. 175–91; H. Amery, "Islam and the Environment," in N. I. Faruqui, A. K. Biswas, and M. J. Bino (eds.), *Water Management in Islam*, Tokyo, United Nations University Press, 2001, pp. 39–60.