

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

ECOLOGICAL IMPERIALISM

People of European descent form the bulk of the population in most of the temperate zones of the world – North America, Australia, and New Zealand. The military successes of European imperialism are easy to explain; in many cases they were a matter of firearms against spears. But as Alfred Crosby explains in this highly original and fascinating book, the Europeans' displacement and replacement of the native peoples in the temperate zones was more a matter of biology than of military conquest. European organisms had certain decisive advantages over their New World and Australian counterparts. The spread of European disease, flora, and fauna went hand in hand with the growth of population. Consequently, these imperialists became proprietors of the most important agricultural lands in the world.

Now in a new edition with a new preface, Crosby revisits his now classic work and again evaluates the global historical importance of European ecological expansion.

Alfred W. Crosby is Professor Emeritus in American Studies, History, and Geography at the University of Texas at Austin, where he taught for more than 20 years. His previous books include *America's Forgotten Pandemic: The Influenza of 1918* (2nd edition, Cambridge, 2003), *Throwing Fire: Projectile Technology through History* (Cambridge, 2002), and *The Measure of Reality: Quantification and Western Society, 1250–1600* (Cambridge, 1997). *The Measure of Reality* was chosen by the *Los Angeles Times* as one of the 100 most important books of 1997.

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

STUDIES IN ENVIRONMENT AND HISTORY

EDITORS

Donald Worster *University of Kansas*J. R. McNeill *Georgetown University*

OTHER BOOKS IN THE SERIES

- Donald Worster *Nature's Economy: A History of Ecological Ideas*
 Kenneth F. Kiple *The Caribbean Slave: A Biological History*
 Arthur F. McEvoy *The Fisherman's Problem: Ecology and Law in the California Fisheries, 1850-1980*
 Robert Harms *Games against Nature: An Eco-Cultural History of the Nunu of Equatorial Africa*
 Warren Dean *Brazil and the Struggle for Rubber: A Study in Environmental History*
 Samuel P. Hays *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985*
 Donald Worster *The Ends of the Earth: Perspectives on Modern Environmental History*
 Michael Williams *Americans and Their Forests: A Historical Geography*
 Timothy Silver *A New Face on the Countryside: Indians, Colonists, and Slaves in the South Atlantic Forests, 1500-1800*
 Theodore Steinberg *Nature Incorporated: Industrialization and the Waters of New England*
 J. R. McNeill *The Mountains of the Mediterranean World: An Environmental History*
 Elinor G. K. Melville *A Plague of Sheep: Environmental Consequences of the Conquest of Mexico*
 Richard H. Grove *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*
 Mark Elvin and Tsui'jung Liu *Sediments of Time: Environment and Society in Chinese History*
 Robert B. Marks *Tigers, Rice, Silk, and Silt: Environment and Economy in Late Imperial South China*
 Thomas Dunlap *Nature and the English Diaspora*
 Andrew C. Isenberg *The Destruction of the Bison: An Environmental History*
 Edmund Russell *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring*
 Judith Shapiro *Mao's War against Nature: Politics and the Environment in Revolutionary China*
 Adam Rome *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism*
 Nancy J. Jacobs *Environment, Power, and Injustice: A South African History*
 Matthew Evenden *Fish versus Power: An Environmental History of the Fraser River*

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

Ecological Imperialism

The Biological Expansion of Europe,
900–1900
Second Edition



ALFRED W. CROSBY

University of Texas, Austin



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -
Second Edition
Alfred W. Crosby
Frontmatter
[More information](#)

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa
<http://www.cambridge.org>

© Cambridge University Press 2004

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 1986
Canto edition first published 1993
Second edition first published 2004

Printed in the United States of America

Typeface Plantin 12/14 pt.

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication data available

ISBN-13 978-0-521-83732-3 hardback
ISBN-10 0-521-83732-4 hardback

ISBN-13 978-0-521-54618-8 paperback
ISBN-10 0-521-54618-4 paperback

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

TO
JULIA AND JAMES TRAUER
AND THE STAFF OF THE
ALEXANDER TURNBULL LIBRARY,
WELLINGTON, NEW ZEALAND

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

THE DISCOVERY OF AMERICA, and that of a passage to the East Indies by the Cape of Good Hope, are the two greatest and most important events recorded in the history of mankind.

—Adam Smith, *Wealth of Nations* (1776)

YET, IF WE WIELD THE SWORD of extermination as we advance, we have no reason to repine the havoc committed.

—Charles Lyell, *Principles of Geology* (1832)

WHEREVER THE EUROPEAN HAD TROD, death seems to pursue the aboriginal. We may look to the wide extent of the Americas, Polynesia, the Cape of Good Hope, and Australia, and we find the same result.

—Charles Darwin, *The Voyage of the Beagle* (1839)

THE DISCOVERY OF AMERICA, the rounding of the Cape opened up fresh ground for the rising bourgeoisie. The East Indian and Chinese markets, the colonization of America, trade with the colonies, the increase in the means of exchange and in commodities generally, gave to commerce, to navigation, to industry an impulse never before known, and thereby, to the revolutionary element in the tottering feudal society, a rapid development.

—Karl Marx and Friedrich Engels,
Manifesto of the Communist Party (1848)

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

Contents

<i>List of illustrations</i>	<i>page</i> xiii
<i>Preface to the new edition</i>	xv
<i>Acknowledgments</i>	xxi
1. Prologue	I
2. Pangaea revisited, the Neolithic reconsidered	8
3. The Norse and the Crusaders	41
4. The Fortunate Isles	70
5. Winds	104
6. Within reach, beyond grasp	132
7. Weeds	145

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

CONTENTS

8. Animals	171
9. Ills	195
10. New Zealand	217
11. Explanations	269
12. Conclusion	294
Appendix: What was the “smallpox” in New South Wales in 1789?	309
<i>Notes</i>	312
<i>Index</i>	361

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

Illustrations

FIGURES

1. The seams of Pangaea	<i>page</i> 10
2. Floral regions of the world	12
3. Faunal regions of the world	13
4. The Atlantic Ocean	72
5. Winter winds	109
6. Summer winds	110
7. New Zealand	219

PLATES

(*following page 82*)

1. Two Guanches at the end of the sixteenth century
2. A Flemish version of the three-masted ship of the *marinheiros*

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

ILLUSTRATIONS

3. A late sixteenth-century print of the Old World plantain
4. The dandelion of the European Renaissance
5. A twentieth-century Texas longhorn
6. Getting horses across the oceans
7. The French in Florida in the late sixteenth century
8. Englishmen and animals in Virginia in the early seventeenth century
9. Aztec smallpox victims in the sixteenth century
10. Buenos Aires in the late sixteenth century
11. Indians and fauna of southern South America
12. An Aborigine of the early nineteenth century
13. A family of Aborigines
14. A pre-Columbian sculptured tobacco pipe
15. An eighteenth-century Maori seacraft
16. A Maori as seen by an artist who sailed with Captain Cook
17. One of the first New Zealanders ever to see a white man
18. A Maori of the 1820s
19. An Argentinian of the early nineteenth century
20. A Tasmanian mother and child

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

Preface to the new edition

EACH GENERATION of scholarly historians has not a universal but at least a common and characteristic way of looking at the past – a paradigm, if you will, but that is too ponderous a word for me. Let's call it a scenario.

The scenario a century ago of historians, nearly all of them Europeans or Euro-Americans, about modern imperialism and the industrial revolution was simple. The Europeans had conquered or at least cowed nearly everyone else in the world because the Europeans were the best people in the world. This phenomenon was especially clear in what I call the Neo-Europes – the United States, Argentina, Australia, and the like – where historians were sure there had never been many indigenous humans and the few survivors were obviously obsolescent.

The industrial revolution had happened first in Europe because everything important started there, as it always

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

PREFACE TO THE NEW EDITION

had since – oh – Aristotle. White people were better at machines, administration, and business than other people.

It is easy – even fun – to criticize the historians of the Victorian era, but they did nothing more contemptible than to draw their conclusions from the evidence they had at hand. Native American populations from the Arctic to Tierra del Fuego, along with those of Australian Aborigines and New Zealand Maori, seemed to be plunging to extinction, while European and Neo-European populations were exploding. Their factories were smoking away in Manchester, the Ruhr, and Pittsburgh. Their railroads spanned North America, there were plans for Trans-Siberian and Cape-to-Cairo equivalents, and the sun couldn't set on the British empire no matter how hard it tried.

Then came the world wars, Gandhi, Lenin and Mao and the Marxist evangelists, innumerable colonial uprisings – and the need for a new historical scenario. That scenario rocketed to notoriety in the trying times of the 1960s and soon achieved the status of “political correctness.” Its theme was that European imperialism had succeeded because of European brutality, superior military technology, and capitalist encroachments. And, oh yes, the industrial revolution was a capitalist scam and an ecological disaster.

We have, guided by this scenario, learned a great deal about our pasts that we had never known or at least consciously acknowledged. I learned that, as one of my T-shirts from Chicago's Field Museum proclaims, “Columbus didn't discover America; He invaded it.” I learned that more Africans than Europeans came to the New World in the first three post-Columbian centuries. I learned that the industrial revolution was so unhealthy for most of those it supposedly benefited that for several generations they were literally shorter than their peasant ancestors.

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

PREFACE TO THE NEW EDITION

And so on and so on. For historians the closing decades of the twentieth century were chilly, and we found that the best way to keep warm was to maintain a furious tirade against our society's and profession's founding fathers. (No founding mothers, of course.)

But all scenarios, including this one, have weaknesses and omissions. Yes, European imperialists were egomaniacal about themselves, their religions, and their customs, and they had short tempers and long swords, but why were they so much more successful in the Americas and the Pacific than in Asia or Africa? Why, for instance, had Native American resistance been so ineffective?

Yes, the Europeans had joint-stock companies and banks with international connections, but they also had numerous and mutually injurious wars, and the Protestants hated the Catholics and the Catholics hated the Protestants and they both beat up on the Jews. Who would have looked at England under Cromwell or at Germany at the end of the Thirty Years War and predicted their industrializations?

Yes, the Europeans had specific advantages, but other peoples had theirs, too. How is it that the Europeans' advantages enabled them to soar to world hegemony? And how is it that their advantages led to *the* industrial revolution while previous imperialist thrusts had never produced such revolutions but only more empires?

We historians have not been sitting on our hands. We've been at our computer keyboards day and night and are framing a scenario that answers or at least faces up to those questions, a scenario for the twenty-first century.¹

In 1492 and for at least the next two centuries, and probably three, the societies of humanity's several

¹ The clearest exposition of the new scenario that I have come across is Kenneth Pomeranz's *The Great Divergence: China, Europe, and the Modern World Economy* (Princeton: Princeton University Press, 2000).

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

PREFACE TO THE NEW EDITION

civilizations were each materially incapable of achieving world hegemony. They didn't have the capital or markets to drive and support a true and permanent industrial revolution. All but a few of their people were engaged in producing the bare necessities – food, fuel, shelter – and if they went off to do something else, stark poverty and famine would follow. There wasn't sufficient nonfarm population to staff the factories, if they ever did appear.

At least one of the aforesaid societies would have to somehow enormously increase its productivity. That quantum jump would have to be made *before* the various scientific, technological, agricultural, and industrial revolutions on which our post-quantum-leap world rests. It could only be accomplished by exploiting the ecosystems, mineral resources, and human assets of whole continents outside the lands of the society making the jump.

Western Europe did just that by means of its brutality and guns and, more important, by geographical and ecological luck. The Europeans made the oceans into highways, arrived in America with guns for conquest and with infectious diseases for decimating indigenous populations, and opened whole regions for immigrant settlement and exploitation, i.e., for making the New World into an enormous and varied adjunct to European societies and economies.

Years ago I spent several happy months as a Fulbright Fellow in New Zealand. There I heard the Kiwis' mildly self-disparaging (and today anachronistic) nickname for their country: "Britain's off-shore farm." Europe's first off-shore farm was the whole New World.

The Europeans arrived there with crops and livestock pre-adapted to American environments. For example, the sugarcane plantations of Brazil and the West Indies became moneymaking machines for the imperial institutions, public and private, and important sources of calories for Europe's populations. The Europeans returned home with

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

PREFACE TO THE NEW EDITION

American crops – maize, potatoes, etc. – that did well in European soils, and with American treasure, especially silver, to stimulate economies and fuel global trade.

Other societies had poised at the starting line of industrialization but had been held back by ecological factors. As conditions had promoted accumulation of capital, they had also stimulated population growth, leaving societies with no greater surpluses proportionally for investment than before. As industries had grown, they had leveled forests for construction materials and fuel, and all the while farmers, hard pressed to produce more, were destroying the fertility of their soils. No society seemed to have enough ecological assets at home to manage the quantum jump.

Western Europe was able to make the jump using the New World the way that a pole vaulter uses his pole. Early industrial Great Britain, for instance, drew much and then more and more of its wood and food and almost all of its cotton for inexpensive clothing from the New World. No longer was it necessary for nearly every British citizen to remain on the land to supply the necessities of life. A growing number were available to work in the new mills, and the excess could migrate to the New World and, after a while, to the Pacific colonies. In the colonies these extra people prospered and formed markets for European goods.

Great Britain made the quantum jump no later than 1850 or so. Others followed their example, the United States, Germany, and Japan most successfully. The United States had a built-in hinterland for exploitation. Germany and Japan, lagging behind Britain imperialistically, tried to seize hinterlands that were already occupied by people of broad immunological and military experience, with unpleasant consequences for all.

Today the Third World nations, most of them stuck with the dead-end job of supplying the First World with raw materials, want to industrialize but are starting late with very large populations, already weary ecosystems, and, most of

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

PREFACE TO THE NEW EDITION

them, with little in the way of hinterland. They have to depend on infusions of foreign capital and on the productivity of scientific agriculture, if and when they acquire expertise in that field. I wish them well.

That, I think, is the new scenario, and I am proud to have contributed to it. I wonder how long it will suffice.

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

Acknowledgments

IT IS IMPOSSIBLE to give credit to all the people whose help in writing this book was indispensable: the legions of librarians, especially those who labored obscurely at the business of interlibrary loans, the colleagues who offered careful criticisms, and – more important and more difficult to remember – those who looked over my shoulder and made offhand remarks that set me on paths that otherwise I would never have found. I want particularly to thank the University of Texas Library for amassing such a magnificent collection of sources and the University of Texas for being generous in granting me time and funds for my research. A Fulbright fellowship at the Alexander Turnbull Library in New Zealand and a year and a half in New Haven, Connecticut, at the National Humanities Institute and as William B. Cardozo Lecturer at Yale University were also vital to my work. I also thank *The*

· xxi ·

Cambridge University Press

0521546184 - Ecological Imperialism: The Biological Expansion of Europe, 900-1900 -

Second Edition

Alfred W. Crosby

Frontmatter

[More information](#)

ACKNOWLEDGMENTS

Environmental Review and *The Texas Quarterly* for permission to republish the parts of *Ecological Imperialism* that first appeared in their pages.

Most strongly I want to thank the individuals who directly encouraged and even rescued me when my energy waned, including, of course, Frank Smith, my editor. Further back there was Wilbury A. Crockett, the world's greatest English teacher, who first informed me that a life of the mind was respectable; Jerry Gough, who reaffirmed that point some decades later; Edmund Morgan and Howard Lamar, whose attentions suggested to me that I should keep on keeping on; and Donald Worster and William McNeill, who paid me the great compliment of taking for granted that I was doing so. I am especially grateful to Daniel H. Norris and Lynette M. McManemin, who read chapters of this book for me, and to William McNeill, who read the whole thing in first draft, splinters and bark and all.

I want last to express my gratitude for specific acts of assistance by the computer wizards at the University of Texas at Austin: Morgan Watkins, who prepared the final tape; Clive Dawson, who recaptured Chapter 10 late one Saturday night when it strayed beyond delete and even expunge; and Frances Karttunen, who started me off with "Al, this is a computer terminal. Now, don't be scared," and who provided me with many a bit and byte of advice in English and Spanish.