

Exploring the Interactions of the Planet's History and People's History

Selective Annotated Bibliography, Last Updated January 5, 2007 James R. Karr

Recent syntheses (Best Baker's Dozen Plus; My View)

Clark, R. P. 2000. *Global Life Systems: Population, Food, and Disease in the Process of Globalization*. Rowman and Littlefield, Lanham, MA. Although humans did not begin as a global species, we became one. That success (if we can call it that) came from our ability to change other species. Globalization, then, is not a process that began in the past hundred years. Rather it is a process with roots in the distant past that is as much ecological and demographic as it is economic and political. Clark explores the interconnections among population, disease, agriculture, trade, fuels, and living systems in globalization. His analysis provides new insight about the ever-evolving relationships between humans, nature, and environment.

*Diamond, J. 1997. *Guns, Germs, and Steel: The Fates of Human Societies*. Norton, NY. Diamond, a biologist, begins with simple questions: Why did wealth and power become distributed among human societies as they are now? Why did some cultures spread and conquer while others were conquered? He examines the differences among the continents and how those differences lead to differing rates of plant and animal domestication and eventually technology and political organization. He concludes that the striking differences in the long-term histories of peoples of different continents have been due, not to innate differences in the peoples, but to differences in their environments. Diamond won a 1997 Pulitzer Prize for this book.

*Diamond, J. M. 2005. *Collapse: How Societies Choose to Fail or Succeed*. Viking, New York. In *Guns, Germs, and Steel*, Jared Diamond led us on an exhilarating march through 13,000 years of human history. In *Collapse*, Diamond continues that journey, examining in fascinating historical detail why past societies succeeded or failed. A five-point framework of explanation emerges: environmental change caused by humans, climate change, hostile neighbors, friendly trade partners, and society's responses to environmental problems. He then connects these stories to troubling scenes from the twenty-first century—in Rwanda and Australia, China and Montana—and extracts practical lessons for a world that desperately needs to redefine progress.

*Fagan, B 1999. *Floods, Famines, and Emporers: El Niño and the Fate of Civilizations*. Basic Books, NY. Fagan, an anthropologist, focuses on how El Niño and other climate anomalies that disrupt weather patterns influenced human society. He describes the relationship between major climatic events and major historical events in both ancient and modern times. He concludes that humans have adapted exquisitely to the global environment for the past ten thousand years, but at a high price. In the past two centuries the Industrial Revolution has trapped us, through no one's fault, on a path that threatens our very existence. To escape this trap will require extraordinary solutions that transcend politics, religion, and individual goals.

* I have used these as texts in courses at the University of Washington.

*Fagan, B. 2000. *The Little Ice Age: How Climate Made History 1300-1850*. Basic Books, New York. Fagan's analysis of the Little Ice Age (1300-1850) sandwiched between two warm periods provides a fascinating account of the influence of climate on the course of human events (with emphasis on Europe and areas influenced by Europeans).

Fagan, B. 2004. *The Long Summer: How Climate Changed Civilization*. Basic Books, New York. Fagan weaves a 15,000 year story of how, time and again, climate has been associated with major transformations in human history, changing ecosystems, technologies, and political, cultural, and social systems. Fagan illustrates how events from the changing Gulf Stream to the flood that created the Black Sea or increased rainfall in East Africa influenced human society. Through the entire history of civilization, humans have traded up, accepting vulnerability to large climate stresses in exchange for resistance to smaller ones.

Fernández-Armesto, F. 2001. *Civilizations: Culture, Ambition, and the Transformation of Nature*. Free Press, New York. Fernández-Armesto takes a new approach to the comparative history of civilizations. Instead of analysis based on time period or from society to society, he organizes his presentation based on environment type. The result connects ecology and geography to a "panorama of cultural history." Seventeen distinct habitats serve as jumping-off points for discussion and comparison of civilizations. The ambition to fashion nature to fit human preferences, he notes, cannot ignore the effects of natural environments on civilizations and their development. Among other things he notes that civilization can occur in any environment, no people or culture has a special talent for civilization, environmental diversity makes civilizations more resilient and durable, and no linear or progressive story unites the histories of civilizations from different environments.

*Flannery, T. 2001. *The Eternal Frontier: An Ecological History of North America and Its Peoples*. Atlantic Monthly Press, New York. Flannery's chronicle of North America's evolution begins 65 million years ago as a meteor six miles wide smashes into Earth and ends in the present with the effects of modern industry and commerce on the continent. As the story moves across vast distances of time and geography, Flannery chronicles the impact of many players (geology, climate, organisms) in the evolution of North America. He documents the impact of the human race, especially how its myth of the eternally bountiful frontier has fostered a cavalier disregard for environmental laws. His earlier book, *The Future Eaters*, explores the history of the Australian continent.

*Hammond, A. 1998. *Which World? Scenarios for the 21st Century. Global Destinies, Regional Choices*. Island Press, Washington, DC. Hammond presents three views of the future based on past and current trends (Market World, Fortress World, and Transformed World) in Part I of this volume. Part II explores critical demographic, economic, technological, environmental, social, political and security trends driving one or another of those three worlds. Part III takes a regional perspective as describes what might happen in the major geographic areas based on these trends. The book closes with a discussion of global destinies focusing on the opportunities for creating a more hopeful world.

*Hughes, J. D. 2001. *An Environmental History of the World: Humankind's Changing Role in the Community of Life*. Routledge, New York. This volume provides yet another masterful syntheses of the environmental and economic conditions that have shaped human uses and perceptions of the environment. The failures of past societies can teach us much; will we use those lessons to address problems today and in the future? Well-organized and written but carries a \$115.00 price tag; get it from your local library.

McMichael, T. 2001. *Human Frontiers, Environments and Disease: Past Patterns, Uncertain Futures*. Cambridge University Press, Cambridge, UK. McMichael charts the trajectory of humankind and its changing survival patterns across time and landscape. Beginning when our ancestors roamed the African savanna, he traces the health challenges faced by humans up to today's populous, industrialized, globalizing world. From disease to famine and depleted resources, he examines the challenges to human health from agrarianism, industrialization, fertility control, modern lifestyles, and so on. Most important, he recognizes and discusses with considerable insight how population health depends on environmental conditions, including the importance of efforts to achieve a transition to sustainability.

McNeill, J. R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth-Century World*. W. W. Norton, NY. McNeill, a historian, explores the lessons of 20th century trends. He concludes that the environmental dimensions of the 20th century will overshadow the importance of events like the world wars, the rise and fall of communism, and the spread of mass literacy. We need, he concludes, to do more to understand and interpret the interactions of "the planet's history" and "the people's history" because modern ecological history of the planet and the socioeconomic history of humanity make full sense only if seen together.

*Pimm, S. L. 2001. *The World According to Pimm: A Scientist Audits the Earth*. McGraw-Hill, NY. Fifteen years ago a team of Stanford scientists tried to understand and define the scope of human use of Earth's annual primary production. Pimm becomes an investment banker of global, biological accounts as he explores what scientists have learned since that paper was published. The analyses drags on sometimes but the story is told in a personal and witty way without preaching. Humans currently consume more than 40% of the world's annual biological productivity and 50% of the freshwater supply.

Redman, C. L. 1999. *Human Impact on Ancient Environments*. University of Arizona Press, Tucson, AZ. Redman, an anthropologist, demonstrates that the archaeological record contains hundreds of situations in which relationships between societies and the environments were destructive. In short, many past societies did not live in harmony with nature in some poetic Arcadia. Redman shows that we can derive important lessons about environmental problems that confront us today through analyses of the past.

Thiele, L. P. 1999. *Environmentalism for a New Millennium: The Challenge of Coevolution*. Oxford University Press, NY. Thiele, a political theorist, takes stock of the American environmental movement with a superb analysis of the stages of its evolution. He outlines four stages from conservation in the 1800s to recognition of three complex interdependencies at the beginning of the 21st century: intergenerational [environmental sustainability]; social and geographic [environmental justice]; ecological [struggle to protect the integrity of living systems].

Wilson, E. O. 2002. *The Future of Life*. A. A. Knopf, NY. Two-time Pulitzer Prize winner Wilson, provides a tour de force on human activities effects on life on Earth as well as our dependence on that life. He argues that we can do more to protect living systems and ourselves and the cost will be smaller than most people suspect and the benefits incalculable.

*Wright, R. 2004. *A Short History of Progress*. House of Anansi Press, Toronto, ON. Wright begins this book with the Gauguin's three famous questions: Where do we come from? What are we? Where are we going? After suggesting that the first two questions have been answered by the work of scholars during the last two centuries, Wright explores where we are going with an eye to lessons from the past. "While we may learn from the past, we don't seem to learn much." He closes with a compelling chapter on civilization as an experiment, concluding that the fate of civilization is in our hands but is by no means certain. The best 130 pages I have read on the historical foundation of the behavior of modern society.

Classics

Cronon, W. 1992. *Nature's Metropolis: Chicago and the Great West*. W. W. Norton, NY. Cronon's classic history of the growth of Chicago in the nineteenth-century explores the interaction of ecological and economic changes that set the stage for what America is today.

Crosby, A. W. 1986. *Ecological Imperialism: The Biological Expansion of Europe, 900–1900*. Cambridge University Press, Cambridge. Using an ecological framework, Crosby reveals how Europeans were able to conquer the people of temperate lands through coevolution with the plants, animals, and germs they brought with them.

Hobhouse, H. 1985. *Seeds of Change: Five Plants That Transformed Mankind*. Harper and Row, NY. In this fascinating and "highly original interpretation of large areas of world history," Hobhouse shows how often the root of great forces shaping history can be tied to a few plants. His focus on the histories of quinine, sugar cane, tea, cotton, and the potato presents a challenging new interpretation of the post-Renaissance world. From the expansion of slavery in the US to work in cotton fields to the opening of tropical regions through the use of quinine, he examines the cultural influences and other consequences of spread and use of these five key plant species.

Kennedy, P. 1993. *Preparing for the Twenty-first Century*. Random House, NY. Human history is shaped by growth and migration of populations, by the opportunities and constraints provided by the environment, and by the rise of new technologies. Kennedy, a historian, describes how these forces in the modern world have produced a state of unprecedented turbulence, a turbulence that will present perhaps the greatest challenge for 21st century society.

Marsh, G. P. 1865. *Man and Nature; or, Physical Geography as Modified by Human Nature*. Charles Scribner, NY. A classic and probably the first major book ever published that revealed the menace of environmental misuse, explained its causes, and prescribed reforms.

Ponting, C. 1991. *A Green History of the World: The Environment and the Collapse of Great Civilizations*. St Martin's Press, NY. With examples from Sumeria and ancient Egypt to pre-Columbian North America and tiny Easter Island, Ponting, a historian, demonstrates that humans have built civilizations that prospered by exploiting the earth's resources. When regional resources could no longer sustain them, many societies collapsed.

Turner, B. L. II, W. C. Clark, R. W. Cates, J. F. Richards, J. T. Matthews, and W. B. Meyer. 1990. *The Earth as Transformed by Human Actions: Global and Regional Changes in the Biosphere over the Past 300 Years*. Cambridge University Press, NY. A classic based on a symposium.

Recent Syntheses (The Rest)

Barnes, E. 2005. *Diseases and Human Evolution*. University of New Mexico Press, Albuquerque, NM. Barnes, a paleopathologist, traces the long history of infectious diseases in humans beginning with the microbes that afflicted our species when the first humans settled into villages and ending with the challenges we face in the 21st century. Most of those diseases are animal derived; some are now endemic to humans while others periodically infect humans from their more normal animal hosts. As humans have attached these attackers, we also provided new ecological niches for microbes by intensive food production in agrarianism to the crowding associated with poverty and modern medical miracles such as transfusion and transplantation. The disease challenges faced by society have changed but they have not disappeared. This book emphasizes infectious diseases with more limited discussion of deaths due to non-infectious diseases (Heart disease, immune disorders, diabetes, some cancers, and so on).

Bawden, G. and R. Reycraft, editors. 2000. *Confronting Natural Disaster: Engaging the Past to Understand the Future*. University of New Mexico Press, Albuquerque, NM. Improvement in high resolution paleoclimatic data provide independent measures of timing, amplitude, and duration of highly disruptive climatic events as catalysts of societal collapse.

Brody, H. 2000. *The Other Side of Eden: Hunters, Farmers, and the Shaping of the World*. North Point Press, New York. After several decades of work with hunter-gatherers, Brody concludes that farmers and their colonizing descendants are the true wanderers and whose influence has changed the face of the world. In contrast, Brody argues that hunters have a deep sense of place and the ways of their ancestors. In thought, word, and act they are part of the fabric of the natural and spiritual worlds in ways that farmers and their descendants have lost.

Calloway, C. G. 2003. *One Vast Winter Count: The Native American West Before Lewis and Clark*. University of Nebraska Press, Lincoln, NE. *Publishers Weekly* named *One Vast Winter Count* one of the Best Books of 2003. The temporal (prehistory to the 18th century) and spatial (Appalachians to the Pacific) scope is vast as is the thoughtful selection of information from diverse historical, ethnographic, and archeological sources. Calloway recounts the diverse factors (e.g., from disease to climatic change) responsible for the fall of Native American societies that had persisted for thousands of

years. Modern society after only a few hundred years may yet prove as vulnerable to similar changes.

*Chew, S. C. 2001. *World Ecological Degradation: Accumulation, Urbanization, and Deforestation 3000 B.C. – A..D. 2000*. Altamira Press, Walnut Creek, CA. Chew tracks ecological degradation over 5000 years by exploring relationships between human cultures and natural environments. Although his initial focus was deforestation, this volume expands the view to a global consideration of capital accumulation, consumption, and urbanization as driving forces of ecological degradation. A central premise of this volume written from the viewpoint of a sociologist is that “ecological relation is as primary as the economic relation in the self-expansionary processes of societal systems.” He closes the volume with a chapter on ecological consciousness and environmental movements from 2700 B.C. to the present. The volume is tough to read because of an abundance of jargon and convoluted sentence structure.

Collins, R. 2002. *The Nile*. Yale University Press, New Haven, Connecticut. In its 4200 mile length the Nile extends from the highlands of equatorial Africa to its mouth on the Mediterranean. Nutrient- and silt-laden floodwaters enabled agriculture and civilization to flourish and brought catastrophe when the floods did not come. As one reviewer notes, no other river in the world has embraced such human diversity. But the huge and varied populations that have thrived on the waters of the Nile have also exerted extraordinary pressures on the river and its environment. Robert Collins charts this dynamic interplay between man and nature in chronicling the past, present, and future of this great river.

Cook, M. 2004. *A Brief History of the Human Race*. W. W. Norton, NY. Yet another book exploring the driving forces behind the unfolding of human civilization. This one begins earlier than most and places more emphasis on the geological contexts of human evolution on each of the continents. The human species is new (100,000 years) and unified given its massive range. Divergence began with the warmer and more stable period following the last great ice age about 12,000 years ago; many aspects of human regional divergences are tied to geology, ecology, and climate. Eventually technological innovation and expanding trade networks set in motion events that ultimately produced the modern world. Although Cook gives little attention to the modern world, his emphasis throughout the history that he describes is to focus on underlying causes.

Dalby, A. 2003. *Language in Danger: The Loss of Linguistic Diversity and the Threat to Our Future*. Columbia University Press, New York. Dalby notes that half of the 5,000 languages spoken today will disappear in the 21st century. Some people argue that the loss of languages will improve communication among the world's peoples. Dalby counters that conclusion as he argues that there are three overriding reasons that we should stop the loss of languages. We need the knowledge that they preserve and transmit, the insights they give about the world around us, and the interaction with other languages that keeps our own language flexible and creative.

Davis, M. 2001. *Late Victorian Holocausts: El Niño Famines and the Making of the Third World*. Verso, New York. Davis explores the social, cultural, and political complexities that link crop failures in the last decades of the 19th century; climatic events (El Niño) originating in the western Pacific; and 19th century famines, colonial mismanagement in

India, the demise of imperial China, and the plight of Brazil's arid northeast. Although his selection of the word "holocausts" in the title conjures up images of simplistic and murderous global conspiracies, in the end his apportioning of blame is more balanced. The fifty million rural poor who perished during this period (1870-1914) would likely see arguments about the difference as at best academic.

Economy, E. C. 2004. *The River Runs Black: The Environmental Challenge to China's Future*. Cornell University Press, Ithaca, NY. China's transition to an economic power places new stress on the nation's natural resources with diverse consequences for the well-being of Chinese citizens. From public health problems to economic loss and social unrest, environmental degradation challenges local, regional, national, and even international political leaders. A patchwork of responses past and present yields islands of relative environmental quality while deterioration continues across the nation. China's future is explored in light of experiences within other societies.

Eisenberg, E. 1998. *The Ecology of Eden*. Vintage Books, NY. Drawing on diverse disciplines, Eisenberg begins with the myth of paradise and examines the ways in which people have envisioned and tried to re-create the earthly paradise even as they have dealt with the disastrous effects of their increasing manipulation of the environment.

Elvin, M. 2004. *The Retreat of Elephants: An Environmental History of China*. Yale University Press, New Haven, CT. China is perhaps unique in the availability of detailed records that document several thousand years of Chinese history. Elvin's integration of political, social, literary, and religious sources provides intriguing glimpses into the history of human-environment interactions and the forces that have brought China to the modern world. As one review notes, "Elvin meticulously details the ecological consequences of economic growth on Chinese civilization."

Fernandez-Armesto, F. 2002. *Near A Thousand Tables: A History of Food*. The Free Press, New York. Human's extraordinary powers of invention are superbly illustrated in our ability to find and prepare food. Beginning with cooking, a social act that forges and may be responsible for culture, Fernandez-Armesto explores eight revolutions that include herding, agriculture in the early days and food industrialization, globalization, and the ever present fast food of modern times. The author sees our drive to improve on nature as dangerous "ecological arrogance" and warns that "We have been turning to much of the planet into too much food: wasting resources, endangering species," and threatening the health of human individuals and cultures.

Fernandez-Armesto, F. 2006. *Pathfinders: A Global History of Exploration*. W. W. Norton, New York. Fernandez-Armesto provides an engaging and insightful history of world exploration that begins with *Homo erectus*'s migrations from East Africa to the rest of the continent and to Eurasia a million and a half years ago. He places these explorations in the context of the cultures, economics, politics, and technologies of their times, explaining, for example, technological and scientific leaps, such as sails, cartography and the cure for scurvy. His survey and synthesis includes maritime expeditions throughout the world, the overland expeditions of merchants and missionaries of the ancient Silk Roads, and the nineteenth-century explorations of the polar regions, interior Africa, North America, and the South Pacific, Fernández-Armesto spins a grand narrative full of character and story.

Gadgil, M. and R. Guha. 2000. *The Use and Abuse of Nature* (combines in one volume: *This Fissured Land: An Ecological History of India* and *Ecology and Equity*). Oxford University Press, New Delhi, India. In one volume eminent ecologist (Gadgil) and distinguished sociologist (Guha) offer an innovative agenda for environmental and social renewal. This Fissured Land is an interpretative ecological history of the Indian sub-continent. Focusing on the use and abuse of forest resources, Gadgil offers a theory of ecological prudence and profligacy in light of events in South Asian history. Ecology and Time is Guha's spirited intervention into the environment-development debate. A fresh introduction written for this omnibus edition explains why they collaborated on this volume and suggests possible future paths for the environmental movement in South Asia.

Geiser, K. 2001. *Materials Matter: Toward a Sustainable Materials Policy*. MIT Press, Cambridge, Massachusetts. The last century has seen a massive increase in the materials created by human ingenuity. Those materials create new opportunities as well as new problems associated with the use and dissemination of those materials. Problems may be aesthetic or more substantive as in the toxic disasters that follow industrialization. The book begins by tracing the history of this material our recent profligacy and the policy failures that result. The second half of the book discusses alternatives including an agenda for doing better through guiding principles of a sustainable materials policy. He places emphasis on dematerialization—from more efficient materials recycling to making do with less—and detoxification—wholesale substitution through increased use of safer substitutes. Geiser recognizes the challenges inherent in such programs. He also shows that we must rise to those challenges because of why it matters, where it matters, and to whom it matters.

Grove, A. T. and O Rackham. 2001. *The Nature of Mediterranean Europe: An Ecological History*. Yale University Press, New Haven. For centuries, the Mediterranean Region has been considered a Ruined Landscape or Lost Eden. Four strands of theory lead to this conclusion. First, the drier and remoter parts of the Mediterranean “have gone bad” due to human actions since Classical times. Second, floods are abnormal and their presence in the Mediterranean is due to denuding of a previously forested landscape. Third, removal of the forest reduced rainfall in the region. And, fourth, the coming of people to the region brought this disaster on for the plants, the animals, and the soils of the region. This volume explores the foundations of this complex of theory, arguing that humans are not responsible for current conditions in the region. As one reviewer notes, the books anecdotal style and highly selective use of supporting material leaves the reader with the uncomfortable feeling that the whole picture is not being presented (*J. Biogeography*. 2001. **28**(9): 1167.)

*Homer-Dixon, T. 2006. *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*. Island Press, Washington, DC. Environmental disasters. Terrorist wars. Energy scarcity. Is this the world's fate, a downward spiral that ultimately spells the collapse of society? Will we use these threats to renew ourselves and planet earth? *The Upside of Down* explores societies' management, or mismanagement, of disasters from the demise of ancient Rome to contemporary climate change. By exploring how multiple crises cause “synchronous failure,” Homer-Dixon draws on the worlds of archeology, poetry, politics, science, and economics to map out the bold reforms that might just reinvent the future of humanity and life on earth.

Hubbell, S 2001. *Shrinking the Cat: Genetic Engineering before We Knew About Genes* Houghton Mifflin, Boston. Humans have deliberately influenced the evolutionary paths of countless other species. As Hubbell notes, a preeminent trait of our species is “our ability to modify the world to make it nice for ourselves.” In this book, she explores the means and consequences of our shaping of plants and animals using four examples: corn, silkworm moths, cats, and apples. The bodies of domestic cats, for example, are smaller than those of wild cats. Their brains too have shrunk and they have only 70% of the neurons that wildcats have. Finally, the adrenal glands that produce the “fight or flight” hormones are smaller, leaving smaller, dumber, and more docile house companions. (Also see Pollan, *The Botany of Desire*.)

Keys, D. 1999. *Catastrophe: An Investigation into the Origins of the Modern World*. Ballantine Books, NY. Keys, a journalist, examines events in A.D. 535 associated with a dusky haze that reduced sunlight throughout the world. Its effects on human cultures throughout the world are described. Some scholars challenge his historical facts and the connections he makes among them. Others suggest the synthesis here will change the way people look at history, forcing historians to reconsider many of their ideas.

Levathes, L. 1996. *When China Ruled the Seas: The Treasure Fleet of the Dragon Throne, 1405-1433*. Oxford University Press, New York. An exploration of the major maritime exploration by the Chinese in the early 15th century. Exploration was stopped by the decision of a single emperor (1430s); the ships and shipbuilding facilities and the records of exploration were then destroyed. Also see the more recent book by G. Menzies.

Lomborg, B. 2001. *The Skeptical Environmentalist: Measuring the Real State of the World*. Cambridge University Press, Cambridge, UK. Lomborg, a statistician in Denmark, explores data to evaluate the current environmental situation. In contrast to the view of many, he challenges widely held beliefs that the environment is getting worse and worse. He is critical of the evidence and analyses of many conventional environmental groups and organizations. Like Julian Simon before him, he concludes that there are more reasons for optimism than pessimism. We need, he notes, to do a better job of establishing priorities so that we tackle the real problems of modern society rather than imagined ones. This volume has been heavily criticized on numerous grounds (for example, see *Scientific American*. 2002. 286(1): 61-71 and 286(5): 13 and 14-15; *BioScience*. 2002. 52: 287-292, and 52: 295-298; and <http://www.gristmagazine.com/grist/books/lomborg121201.asp>).

Mann, C, C. 2005. *1491: New Revelations of the Americas Before Columbus*. A. A. Knopf, New York. The popular wisdom is that Columbus arrived in the Americas to find a near pristine world with a few scattered native Americans. This view is more grounded in the needs of subsequent generations of Europeans reality. Mann “provides an important corrective - a sweeping portrait of human life in the Americas before the arrival of Columbus.”

- Manning, R. 2004. *Against the Grain: How Agriculture Has Hijacked Civilization*. North Point Press, New York. Manning's analysis of the history and consequences of agriculture is incisive and provocative. He methodically describes how agriculture as practiced today has hijacked human society, distorting the connections between humans and their life support systems. He argues that both ecological ills (overpopulation, soil erosion, and pollution) and emotional malaise are rooted in our turn to agricultural systems designed to produce food products rather than food.
- Marks, R. B. 1998. *Tigers, Rice, Silk, & Silt: Environment and Economy in Later Imperial South China*. Cambridge University Press, Cambridge, UK. Marks challenges the conventional wisdom about China conveyed by Western environmental historians. Focusing on the period from 1400 to 1850, Marks explores interactions of population growth, land-use patterns (e.g., agroecology, deforestation), commercialization of agriculture, and climate change as well as the responses of the human population to environmental challenges that result from these interactions. Note that the time period for this book is nearly identical to that of Fagan's *The Little Ice Age*.
- McWilliams, J. 2005. *A Revolution In Eating: How the Quest for Food Shaped America*. Columbia University Press, New York. Throughout human history, the foods consumed by people are defined by the biogeography of their region. McWilliams explores what European colonists in the Americas ate and why. He explores the emergence of staple crops within each region and how foods influenced political and cultural values, economic and social practices. Food was at the core of the Revolution and the impact of Native American foods and agricultural practices was huge.
- Menzies, G. 2003. *1421: The Year China Discovered America*. William Morrow. Menzies takes a more expansive view of Chinese exploration than Levathes (see above). He suggests that the Chinese reached and explored the Americas nearly a century before Columbus. Menzies' interpretations are more controversial because of the breadth of geographic area included in the early Chinese exploration (they overturn many aspects of the European interpretation of history).
- Mithen, S. 2003. *After the Ice: A Global Human History, 20,000-5000 BC*. Weidenfeld and Nicholson, London. (Paperback to be published by Harvard University Press in 2004.) Following the last glacial maximum, ice melted, sea levels rose, and the distribution of Earth's plant and animal species were altered. Perhaps the most important event of this era was the transformation of Earth set in motion by the emergence of humans with their mobility, inventiveness, social flexibility, and ideological sophistication. They quickly moved to occupy nearly the entire planet as they switched from harvesting "wild" foods to growing their own food. This synthesis of insight derived from post-World War II archaeological excavations is, as a reviewer in *Science* notes, "empirically authoritative and quirkily postmodern."

- Ofek, H. 2001. *Second Nature: Economic Origins of Human Evolution*. Cambridge University Press, Cambridge. Ofek offers an economist's perspective arguing that market trading has been the key factor in human evolution since the Middle Stone Age. His speculation on this topic includes an amazing array of topics: the market as a primary factor responsible for the sudden increase in human brain size; fire was one of the first commodities to be traded; and money is the first symbol setting us apart from other animals. A reviewer in *Science* (296 (5571): 1243; 17 May 2002) found the book both frustrating and highly persuasive in its effort to convey "the importance and centrality of economic analysis from an early point in human evolution."
- Olson, S. 2002. *Mapping Human History: Discovering the Past Through Our Genes*. Houghton-Mifflin, Boston, MA. Olson captures some of the core messages of recent work on the human genome to describe the past 150,000 years of human history. This genealogy of all humanity shows how groups of people differ and yet they are the same. *Mapping Human History* is a celebration of human differences and similarities,
- Pollan, M. 2001. *The Botany of Desire: A Plant's-Eye View of the World*. Random House, New York. Most discussions of domestication of plants are based on the view of humans as the manipulators. That is, humans select for plant characters in order to obtain something they want. Pollan views the plants as manipulators of humans to get their flowers pollinated and seeds dispersed. The book is divided into four parts, each focused on a different facet of human desire and its exploitation of and by domesticated plants: sweetness and apples; beauty and tulips; intoxication and cannabis; and control and potatoes. (Also see Hubbell, *Shrinking the Cat*.)
- Pomeranz, K. 2000. *The Great Industrial Divergence: China, Europe and the Making of the Modern World Economy*. Princeton University Press, Princeton, NJ. Pomeranz argues that the reason Asia and Europe performed so differently was that Europe had great coal resources, an ever growing volume of manufactured exports, and what he calls "the fruits of overseas coercion," meaning the slave trade.
- Pyne, S. J. 2001. *Fire: A Brief History*. University of Washington Press, Seattle, WA. Fire, "combustion" as used here, is a product of life on Earth. Because fire depends on oxygen, fire could only appear after the accumulation of oxygen as a byproduct of photosynthesis, first by cyanobacteria and algae, and eventually plants. The "first fires" no doubt resulted from the heat of volcanoes and from lightning strikes. "Second fire" came as humans gained "control" of fire to ward off predators and cleared land for the planting of crops. "Third fire" involves the industrial use of fire with the burning of fossil fuels, typically unseen in the confined spaces of furnaces and engines. As one reviewer notes, "This historical account of fire, ancient and modern, . . . allows the reader to view an essential component of civilization with new insight and enlightenment."
- Richards, J. F. 2003. *The Unending Frontier: An Environmental History of the Early Modern World*. University of California Press, Berkeley, CA. During the "early modern" period from 1500 to 1800, humans and their environments throughout the world changed in numerous ways. The development of new political associations, expansion of trade, the invention of machines and tools, and the search for fresh soils and hunting grounds set the stage for massive changes in all regions of the world. Using case studies from throughout the world, Richards demonstrates that the early modern period was the

most destructive until the modern industrial era. Moreover, the processes and institutions established in the early modern period enabled the rise of industrial capitalism, continued the course of colonialism, and changed Earth's ecosystems in ways that make it impossible to know the baseline condition of wildlife populations before the early modern period.

Ruddiman, W. F. 2005. *Plows, Plagues, and Petroleum: How Humans Took Control of Climate*. Princeton University Press, Princeton, NJ. Paleoclimatologist Ruddiman's suggests in this well reasoned and thoughtful book that humans did not first affect Earth's climate in the past few hundred years as a result of industrialization. Rather, the first footprints of pre-industrial humans on climate can be seen as far back as 8000 years ago, the result of agriculture and human-induced changes in land cover. His exploration of carbon dioxide and methane changes in Earth's atmosphere is merged with human history to explore interactions not previously discovered by either climate scientists or historians.

*Simpson, J. W. 1999. *Visions of Paradise: Glimpses of our Landscape's Legacy*. University of California Press, Berkeley, CA. Simpson, a landscape architect, explores the forces that have shaped the American landscape since the Revolutionary War. He places special emphasis on analysis of the government policies to acquire, survey, and dispose of public lands. The contemporary suburban landscape is described as a function of profound economic and social changes in the 1800s and preferential government programs of the 1900s. The American landscape is a reflection of traditional landscape values: land as private property and a commodity for functional use.

Steckel, R. H., and J. C. Rose, editors. 2002. *The Backbone of History: Health and Nutrition in the Western Hemisphere*. Cambridge University Press, New York. Most books in this bibliography are the product of a single (or two) authors. This edited volume and Bawden and Reycraft noted above break that tradition. The book presents an analysis of the skeletal remains of more than 12,000 residents of the Western Hemisphere from 5,000 B.C. to the late nineteenth century. Slightly over half the remains date from before 1492. The detailed and comprehensive studies summarized in this volume show that the quality and length of life varied significantly from one society to another. Overall, human health declined throughout the pre-Columbian period as indigenous societies became increasingly complex. Members of hunting-gathering societies enjoyed significantly better health than those individuals who lived in more complex, densely populated communities. The studies document the continued decline of health indicators for Native Americans, as well as for European Americans and African Americans after 1492.

Stille, A. 2002. *The Future of the Past*. Farrar, Straus and Giroux. The author of this volume explores many dimensions of what is lost as societies and cultures disappear—their languages, their knowledge. But he also discusses and describes how we are documenting and keeping track of what is lost. But that very recording too is prone to loss as we have turnover in information storage systems. One reviewer ties this together noting that perhaps the best way to document and retain the key things about these cultures and societies is to mimic the work of scribes from the Middle Ages. We still have their documents. How useful will the computer files and the media they are stored at the beginning of the 21st century on be in 100, 500, or 5000 years?

- Strong, M. 2001. *Where on Earth Are We Going?* Texere, New York. This volume begins with a fictionalized and rather ominous report to the shareholders of Planet Earth dated 2031. Strong believes that we can avoid the outlined scenarios. His evidence: Recent initiatives (e.g, The Earth Summit, Rio + 5) provide a blueprint to aid us in forging societal transitions that will avoid the outcomes suggested in his “report.”
- *Walker, B., and D. Salt. 2006. *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*. Island Press, Washington, DC. Societal philosophies captured in phrases such as “more control,” “more intensification,” and “greater efficiency” capture key elements of human attitudes the past few centuries. Their pursuit has weakened the capacity of communities, ecosystems, and landscapes to sustain our planet’s, and thus human, well-being. “Resilience thinking” offers a new way of understanding the world and a new approach to improve the long-term relationships between human society and earth’s life-support systems. In addition to providing an overview of the emerging paradigm of resilience, Walker and Salt discuss five case studies of resilience thinking in the real world.
- Walters, M. J. 2003. *Six Modern Plagues and How We Are Causing Them*. Island Press, Washington, DC. Walters mixes history and science in this examination of six modern plagues—West Nile virus, mad cow disease, HIV/AIDS, hantavirus, Lyme disease and a new strain of salmonella—that have emerged over the past few decades. They began as mysterious yet significant health risks. Now we know how climate change, globalization, deforestation and other habitat destruction, and industrial agriculture have made the world safer for each of these diseases to develop, spread, and kill. The author mixes history and science to weave a story with a lesson about how we should treat the land and animals that inhabit it.
- Ward, P. D. and D. Brownlee. 2000. *Rare Earth: Why Complex Life is Rare in the Universe*. Springer Verlag, NY. Ward (a paleontologist) and Brownlee (an astronomer) examine the probability of intelligent life elsewhere in the universe. They conclude that intelligent life such as that here on Earth (the presumed intelligence of humans) is likely to be very rare, even unique. They contrast that conclusion with the conclusion that simple organic molecules and even very simple organisms may be more widespread.
- Williams, M. 2003. *Deforesting the Earth From Prehistory to Global Crisis*. University of Chicago Press, Chicago. Humans have influenced the forests of Earth for thousands of years. Half the clearing of forests wrought by humans occurred before 1950, first by fire and later by agriculture, and half since 1950. But it is only in the last millennium that human influences have resulted in forest exhaustion and ecological disruption that may have undermined human societies. In the last 500 years, the surging human population, the spread of commercial empires, and the industrial revolution have changed forest around the world. As human populations approach 9 billion and climates change the next century is likely to be one of the most difficult for the world's forests. They will no doubt survive even this onslaught but are likely to be very different from the forests of the past.

Wright, R. 1992. *Stolen Continents: 500 Years of Conquest and Resistance in the Americas*. Mariner Books, Houghton Houghton Mifflin, New York. Wright explores the history of five great American cultures—Aztec, Maya, Inca, Cherokee, and Iroquois—using their own words. By quoting speeches and writing of those cultures, Wright’s narrative helps the reader relive the strange and tragic experiences of these cultures from the arrival of Columbus into the late 20th century. As one reviewer noted, it “redresses the balance between the invaders and the invaded.”

Woodbridge, R. 2004. *The Next World War: Tribes, Cities, Nations, and Ecological Decline*. University of Toronto Press, Toronto, Ontario. The one common enemy of all modern peoples, according to Woodbridge, is ecological decline. Twenty-first century humans will either fight the next world war over isolated pockets of essential resources on a degraded planet or fight a war in which the world’s peoples work to reverse ecological decline. His synthesis calls for a new vision of the problem, outlines the sequence of events from the spread of hunter-gatherers to the rise in agriculture, from urbanization to the rise of nations and global business networks. He argues that we can provision the future only by properly recognizing the common enemy and working to halt ecological decline.