ENVIRONMENTAL HISTORICAL GEOGRAPHY: A REVIEW

Craig E. Colten
Department of Geography and Anthropology, Louisiana State University, Baton Rouge, LA 70803 USA

Keywords: environment, historical geography

Contents

1. Introduction
2. Environmental History and Environmental Historical Geography
3. An Intellectual Font
4. Geographic Influences or the Great Dead End
5. Isolated Explorations during the "Great Retreat"
6. Reversing the "Great Retreat"
7. Influential Pioneers and the Road Not Taken
8. The First Advance, 1960 - 1990
9. Sustained and Diversified Advances after 1990
10. Conclusions
Acknowledgments
Glossary
Bibliography
Biographical Sketch

Summary

Environmental historical geography has been long a core component of historical geography and has been acknowledged as a critical influence to the allied specialty of environmental history. In the English speaking world, it moved through several stages that focused on environmental influences, to culture history, to more explicit historical geography writ large. Since the 1960s there has been a steady increase in more environmental historical geography. Key approaches have been reconstruction of past environments, human impacts on the environment, historical geosophy, and environmental management.

1. Introduction

In 1992, a modest volume entitled *The American Environment: Interpretations of Past Geographies* answered previous pleas for more environmentally engaged historical geography and presented what the editors considered to be examples of a flourishing genre (Dilsaver and Colten 1992). As one of the collaborators on that volume, the present author held no illusion that they were launching a novel or innovative research agenda. Indeed, the authors (Dilsaver and Colten 1992) pointed out that there had been a long tradition of historical geography of the environment, albeit one that was neither deliberate nor structured. Our goal was to showcase the range of inquiries being undertaken by historical geographers and respond to the burgeoning body of work being produced by

©*Encyclopedia of Life Support Systems* (EOLSS)

environmental historians. In a way, the authors sought to remind the scholarly community that much of the fine work that appeared as environmental history had its roots in the work of geographers, as Donald Worster (1988, 306) had observed. And while no claim has been made for inspiring publications that followed, there was a vigorous phase of self-evaluation by scholars who shared an interest in exploring environmental topics through a historical and geographic lens in the ensuing years (Williams 1994, Demeritt 1994, Butlin and Roberts 1995, and Powell 1996).

We shared concerns expressed subsequently by Michael Williams (1994) who lamented the lack of attention environmental historians had given to historical geography. Nonetheless, shortly after the start of the new century there were several statements that acknowledged a turn toward environmental topics. Catherine Nash observed that "human geography seems to have ‘gone back to nature’" (Nash 2000, 23). Alan Baker asserted that historical geography of the environment was one of the four principal discourses in the specialty (Baker 2003) and the historical geography chapter in *Geography in America* devoted a section to environmental literature (Colten et al. 2003). The decade between the publication of *The American Environment* and these declarations of the coming of age of environmental historical geography saw substantial growth and diversification. Its trajectory has not paralleled the expansive growth of environmental history, but geographers have contributed monographic and article-length works that have garnered attention beyond our discipline.

The focus of this entry will be on environmental historical geography. In their 1992 volume, Dilsaver and Colten used the term historical geography of the environment and sought to focus on what they referred to as "research findings that integrate human activity and environmental processes within the context of historical geography" (Colten and Dilsaver 1992, 2). In his 1992 examination of the relations of environmental history and historical geography, Williams used the phrase: the "society/nature problematic" – a term borrowed from Kenneth Olwig (Williams 1994 and Olwig 1980) -- that he used to mean "the synthesis and integration of environmental phenomena with cultural and socio-economic change" (Williams 1994, 3 and see Olwig 1980). In an introduction to a special issue of the *Geographical Review* published in 1998, Colten noted that environmental historical geography differed from environmental history in its emphasis on the environment as "the foundation for human action, the dynamic setting on which past societies created their geographies by transformative or interactive processes" (Colten 1998, iii). Of course environmental historical geography encompasses much more – including past understanding of the environment (Wright 1925 and Glacken 1967).

At a fundamental level, the present author contends that geographers foreground the environment and environmental process in their analyses of human-environmental interactions. Carl Sauer’s students often began historical geographies with the reconstruction of past environments and then proceeded to consider how the movement of people and plants and animals altered pre-existing conditions. This line of inquiry blends a solid foundation in physical geography and the use of geographic analysis. Andrew Clark and his students considered the arrival of colonial societies to new settlings and the ensuing changes to their newfound territories. Often Clark’s students distinguished their work by challenging long-standing historical concepts through

geographic analysis, but the environment was assumed to be a fundamental element in their work. Baker (2003) observes that environmental historical geographies include the reconstruction of past natural environments, human modification of natural environments, and historical geosophy. His classification covers most of the post-1990s environmental historical geography, although omitting environmental policy and management. Baker also neglects to truly distinguish it from environmental history. Two things to the author's mind demarcate the somewhat fuzzy division: (1) rooting the research in either past environmental conditions (natural flora, fauna, climate, etc.), acknowledging and investigating the relationships with humans, and tracing human interactions with those conditions over time and (2) analysis of historical information about past environments within a geographic context – deploying geographic concepts and theories or cartographic analysis to add value to the historical narrative through a geographic lens. The first element may include historical reconstruction of past environments or ideas about past environments, but the environment comes first – not the political or social context as is typical in environmental history. While bringing the environment to the fore may exclude some of the recent work that touches on past environments through critical social theories or by emphasizing social construction, which often result in incidental environmental scholarship, scholars employing these perspectives seldom affiliate with historical geography. This chapter will trace the scholarly antecedents upon which a heathy body of environmental historical geography is built and identify the principal currents and contributions of recent years. Given the volume of scholarly work, it will be more representative than comprehensive and also limited in its linguistic range primarily to the Anglophone literature. The author will try to portray the work in historical geography with a prominent human-environment focus, whether reconstructing past environments, tracing human impacts on the environment, considering policies and practices of managing the environment, or elucidating the ideas and concepts held by people about their environment.

2. Environmental History and Environmental Historical Geography

There have been several discussions on the relationship of environmental history and environmental historical geography (Williams 1994, Powell 1996, Colten 1998, and Baker 2003), and it is essential to recognize the intellectual overlap of these two similar but distinct specializations. Nonetheless, this review will only touch lightly on the impressive and rapidly expanding body of work in environmental history. While deserving of expanded treatment, as John McNeill recently observed the robust field of environmental history has produced such a catalog of titles that a proper survey is now largely beyond the reach of a single individual (McNeill 2003). Given the expansion of the two related fields, this review will point out some of the overviews of environmental history and how they dealt with historical geography, and then move more directly in subsequent sections to the work written by geographers.

From their earliest articulations of self-identification to more recent expositions, environmental historians have consistently nodded toward historical geography as an influence or a point of departure. Richard White acknowledges the important regional studies written by historical geographers such as Carl Sauer, Andrew Clark, and Donald Meinig that depict human influences on the landscape (White 1985). Donald Worster pays tribute to historical geographers: "it has preeminently been geographers who have

©*Encyclopedia of Life Support Systems* (EOLSS)

helped us all see that our situation is no longer one of being shaped by environment; rather, it is increasingly we are doing the shaping" (Worster 1988, 306). While William Cronon (1993) and Carolyn Merchant (2005) do not cite historical geographers in their brief statements on environmental history they are certainly aware of the work in the adjacent field. John McNeill (2003) and Douglas Weiner (2005) both acknowledge historical geographers have contributed to the overall environmental history project. Although as environmental history has gained a more prominent academic standing, some seem to forget the early debt environmental history owes to historical geography, suggesting that historical geographers have finally discovered environmental history and are producing credible examples (Hughes 2006, 9). Nonetheless, there is a growing presence of geographical scholarship in their journal and at the environmental conferences in the U.S. and in Europe.

Within historical geography, J. M. Powell observes that "there is really little or nothing in the environmental historians' agenda which is foreign territory to the historical geographer" (Powell 1996, 255). Colten notes that the paths of environmental history and historical geography of the environment "have so intertwined in recent years it is not unreasonable to ask whether any distinction remains beyond the disciplinary labels and their intellectual foundations" (Colten 1998, iii). Baker, however, comments that disciplinary boundaries filter scholarship and stand as barriers to interdisciplinary collaboration (Baker 2003, 83). While Baker's observation is true, the divide has been unnecessarily fortified by cultural geographers' critiques of the disparate language and goals of cultural geography and environmental history (Demeritt 1994, and see Powell 1996). The linguistic barriers between much of what is presented as environmental historical geography and environmental history are less formidable than those fabricated by theory driven cultural geography. What is important to emphasize, however, is that environmental historians have included geographers in their journals, their meetings, and in collaborative book projects (see Wynn 2006 and Armstrong et al. 2009). And although some observers have bemoaned the lack of geography citations in the work of environmental historians, ongoing collaborations demonstrate vigorous engagement between the two specialties. Such interactions are more constructive than erecting barriers through elaborate demarcations of intellectual territories.

3. An Intellectual Font

George Perkins Marsh, the gentleman farmer - diplomat of Vermont, unquestionably holds a distinguished place in the intellectual development of our concern with environmental historical geography. Marsh published his influential *Man and Nature; or Physical Geography as Modified by Human Action* in 1864. His book recounts the consequences of deforestation and drainage efforts in the Mediterranean basin. He sought to convince his contemporaries that humans played a key role in shaping the earth and that their actions could ultimately lead to the destruction of the earth and humans alike. As David Lowenthal asserts, "*Man and Nature* ushered in a revolution in how people conceived their relations with the earth" (Lowenthal 2000b, 3 and Lowenthal 2000a).

This revolution was carried out by Italian foresters and Arbor Day enthusiasts, and conservation campaigns that reached the United States, Japan, and Australia. Nineteenth century French geographer Elisee Reclus also embraced Marsh. Yet, his writing fell out

©*Encyclopedia of Life Support Systems* (EOLSS)

of favor – though certainly not disappearing entirely – during the early twentieth century, until given a boost in visibility by Patrick Geddes and Lewis Mumford. Their so-called "rediscovery" of Marsh eventually contributed to the 1955 conference that produced the classic anthology *Man's Role in Changing the Face of the Earth* (Thomas 1956) and its subsequent updating *The Earth as Transformed by Human Action* (Turner et al. 1990). The common thread through these works is that human actions produce environmental consequences. Marsh looked at those impacts at the local-regional scale. The later volumes honoring Marsh's work have expanded the scale. By 1990, Turner and others examined human impacts from the watershed to the global scale (Olwig 1980, Lowenthal 2000a and Turner et al. 1990). These recent investigations no longer focus solely on deforestation, drainage, and erosion. Sophisticated environmental analyses can trace the long-term changes in global temperature, atmospheric chemistry, and water quality. While the scale of inquiry has expanded and the range of human impacts has diversified, the fundamental theme of human impacts remains constant.

4. Geographic Influences or the Great Dead End

Many geographers lost sight of Marsh's vision as geography emerged from geology as a specialized field in the American academy in the early twentieth century. Influenced by German geography, two prominent works propelled historical geography of the environment into the forefront of this enterprise. The erstwhile historical geographies of Ellen Semple and Albert Brigham actually subverted Marsh's perspective. They clearly emphasized the human dimension of geography, while retaining links to its physical foundation through their assertions of environmental determinism. Ellen Semple's *American History and Its Geographic Conditions* (1903 and 1933) and Albert Brigham's similarly titled work, *Geographic Influences in American History* (1903), established what Michael Conzen identifies as the first identifiable "school" in American historical geography (Conzen 1993).

Semple offers a lively account of the geographic influences in the settlement of the United States. In her own words the book "defines the relationship between historical movements in the United States the natural environment as the stage upon which history unfolds" (1933, v). As she tells the story, landforms and climate shaped the colonial ventures, the advance of pioneer settlers, the campaigns of the Civil War, agricultural landscapes, transportation networks, and the growth of cities and industries. There were imperfections in her arguments. She presented mountains as barriers to inland penetration, but she concedes that technology (roads and canals) eventually overcame this geographic condition. Thus, in Semple's account, geographic conditions were highly influential, but their power was not permanent or even consistent. Also, while she insists that "bulges" – or pathways of advance – in settlement followed inland rivers, she ignores the flood threat of major waterways that may have deterred settlement immediately adjacent to waterways. Such inconsistencies plagued the environmental determinists.

Brigham's work was largely a regional treatment that depicts the "natural unity" of each region and portrays the distinctive "type of life" that developed in each unique setting. He claims that "at each step we have assured ourselves that geographic influences are real, but real as they are, they cannot be narrowly defined or be given in quantitative terms" (Brigham 1903, 311). It was the claimed but unmeasurable influences that ultimately

doomed the environmental determinists.

Nonetheless, the work of Semple and Brigham bound geographic scholarship, a historical perspective, and the environment. Their work guided a generation of scholars who produced a series of state-level and subsequently city studies making the case for environmental influences. Geographic influences persisted in geographic scholarship until the 1940s (Conzen 1993, 18-19). Criticism from Carl Sauer (1925 and 1941) contributed to its decline, and destined this line of inquiry to be the Great Dead End for historical geography of the environment. Nonetheless, Erhard Rostlund reminds us, environmental determinism persisted as "twentieth-century magic" because people believed it was true even after its academic debunking (Rostlund 1956). And critics of the recent popular work by Jared Diamond (1999) have revisited Rostlund's term asserting *Guns, Germs and Steel* presents an example of "twenty-first century magic" (Eveden 2006). So although professional geographers no longer consider geographic influences a viable explanation for past human-environment relations; this line of thought undoubtedly shaped a prominent stage of historical geography and continues to provide a tantalizing framework for historical accounts a century later.

5. Isolated Explorations during the "Great Retreat"

Throughout much of the early twentieth century, beyond the discussion of environmental influences, there existed examples of physical geography that drew on historical sources to reconstruct past environments. Although Sauer (1941) referred to this period as the "Great Retreat," a modest literature appeared. Seldom if ever presented as historical geography per se, these works illustrate a viable, if minor, research agenda. Within this modest flow three fundamental concepts appear: historical documents can reveal past impacts on the environment, human activity has impacted the environment, and policy adjustments to environmental change offer insight into prevailing environmental issues.

E. P. Goodrich (1916), an engineer, used historical maps to trace the alteration of New York City's harbors. He referred to the changing conditions as "geographic problems" and observed that the historical documents provided engineers with tools for planning urban services. Thus, he argued historical reconstruction of past environments could aid urban development.

A. E. Parkins wrote on the Great Lakes Indians and their environmental relations. While he commented on their long-term adaptation to their climatic setting, he pointed out that following European colonization, they over exploited fur bearing animals and had a deleterious impact on their resources (Parkins 1918). J. Russell Smith (1916) wrote of human destruction of forest and soil resources as he advocated tree-crop agriculture as a conservation tool. Glenn Trewartha, noted as a climatologist, displayed some of the greater diversity among academic geographers of his day when he published a series of articles on the Driftless Hill Country of Wisconsin. He characterizes resource exploitation as "destructive" and asserts that a "robber economy" prevailed for three quarters of a century as colonial ventures consumed furs and minerals (Trewartha 1940).

Gordon Sweet offers a historical assessment of oyster conservation in the Chesapeake Bay area to add a resource management treatment to the 1940s work on

©*Encyclopedia of Life Support Systems* (EOLSS)

human-environment relationships. Adding to the analysis of the Chesapeake Bay, Gottschalk (1945) considers the impact of agricultural settlement and the attendant erosion on navigation. Hugh Hammond Bennett, the founding director of the U.S. Soil Conservation Service and a former president of the Association of American Geographers, echoed Marsh's warnings about the impacts of soil erosion as he advocated conservation policy (Bennett 1928, 1939, and 1943). These inquiries draw on a range of historical sources to depict either direct human impacts or policy approaches to recognized environmental change. And although we can see some of these topics picked up on by later generations, there appears to be no direct lineage.

Still another thread, one that explicitly seeks to establish connections to the environment, was Harlan Barrows' "Geography as Human Ecology." Barrows in his early career followed the course of Ellen Semple and researched geographic influences, but by the early 1920s he voiced a position of his own. In his presidential address to the Association of American Geographers (AAG) he asserted that in the early twentieth century, there had been a considerable movement to "humanize" geography, to pull it away from its geological foundations. "Geography," he stated, "will aim to make clear the relationships existing between natural environments and the distribution and activities of man. Geographers will, I think, be wise to view this problem in general from the standpoint of man's *adjustment* [emphasis added] to environment, rather than from that of environmental influences" (Barrows 1923, 3). According to William Koelsch, Barrows' newly conceptualized human ecology saw humans, not nature, as the shaping force (Koelsch 1969, 637). While often tarred as a proponent of geographic influences, Barrows sought to move beyond that school of thought. Barrows never mentored many Ph.D. students and hence never established a Chicago school of historical geography. Nonetheless, he influenced such scholars as Gilbert White who also studied human adjustment to flood hazards for many years without incurring the label of environmental determinist (White 1958).

6. Reversing the "Great Retreat"

In his oft-cited AAG presidential address, "Foreword to Historical Geography," Carl Sauer (1941) calls for a geography that offers explanatory power by tracing current landscapes from their genesis. His vision was human geography as culture history, the study of human culture acting upon natural landscapes over time. To achieve this goal, he sought to reposition physical geography as one of the foundations for human geography and to reverse what he criticized as the "Great Retreat," or the retraction of geography from its geological roots that he attributed to Harlan Barrows (1923). At the core of his call for action was the study of cultural landscape creation over long periods of time – hence historical geography. Among the themes he identified for historical geographers to investigate were two that explicitly fall within our current view of environmental historical geography: (1) "certain processes of physical geography, involving secular change, may affect man." He included climate, vegetation, and drainage changes in the post-Pleistocene period and cited Marsh as pointing the way in that regard. He also identified: (2) "man as an agent of physical geography." In particular he suggested that geographers identify human influences on climate, geomorphology, hydrology, and plant and animal ecology (Sauer 1941, 371). In advancing this call for historical geography, Sauer situated physical geography as a fundamental component, and advocated

investigations that considered physical processes that might affect human society and the impacts humans may have on physical systems. While environmental issues that have become prominent in recent years, such as pollution, did not appear in Sauer's 1941 challenge, they obviously fall within the scope of his two categories.

Sauer probably wrote less about the two key themes in historical geography of the environment than did his many students. Yet, one of the first substantive pieces he published following his AAG address, "A Geographic Sketch of Early Man in America," closely follows his prescription. It considers both the range of options shaped by long-term climate change on early migration to the Americas from Asia and also the impacts of the arrival of humans on the megafauna and flora of North America (Sauer 1944). Furthermore, his *Agricultural Origins and Dispersals* (Sauer 1952) offers a sweeping view of the movement of domesticated plants and animals on a global scale and in many respects prefaced the highly influential work by Alfred Crosby on the Columbian Exchange many years later (Crosby 1972). *Northern Mists* and *The Spanish Main*, produced much later in his career, exemplify his interests in using historical documents to reconstruct past environments (Sauer 1966 and 1968).

Sauer's students consistently kept the human-environment relationship at the forefront of their work. Sauer saw the cultural landscape as the product of human action on the natural environment, and in Baker's view conflated landscape and environment (Baker 2003, 82), but in his use of the term he wedded environment into all explanations of cultural landscapes. Kent Mathewson offers a substantial review of Sauer's influence on the creation of "environmental geography" (Mathewson forthing) and he notes the importance of this approach as stated by Andrew Clark:

> Perhaps the largest single theme, equally clear in the writings of Marsh and the Berkeley group . . . has been the emphasis on the historical record of man's use, alteration, and rearrangement of his only potentially permanent resources: water, soil, vegetation, and animal life. (Clark 1954, 89)

Although many of Sauer's students did not self-identify as historical geographers, they followed Sauer's lead and traced long-term relationships between culture groups and their physical settings. Robert Bowman's dissertation on soil erosion in Puerto Rico fully exemplifies the human-environment tradition (Bowman 1941). Normally, however, Sauer's students included well-informed discussions of the physical geographic setting and fully integrated human-environment relations in their analysis, without necessarily foregrounding this relationship. Nonetheless, as Mathewson observes, many went on to offer substantial discussions of human-environment relations and second-generation Berkeley-school students did the same (Hewes and Frandson 1952, West 1957, Pennington1963, Denevan 1967, Johannessen 1971, and Parsons 1981).

Among the more obvious products of Sauer's influences that showcase historical geography of the environment were two landmark publications. The first is the set edited by William Thomas, with Sauer largely serving as the ringmaster behind the endeavor, (Thomas 1956 and Williams 2003). Assembled from a conference that paid homage to George Perkins Marsh, the volume's authors explicitly addressed issues that followed Marsh's own concerns with deforestation and erosion, but also introduced key issues that became hallmarks of the later environmental revolution of the 1960s and 1970s. Among the topics included were fossil fuel consumption, water pollution, population pressure,

-

-

-

TO ACCESS ALL THE 36 **PAGES** OF THIS CHAPTER,
Visit: http://www.eolss.net/Eolss-sampleAllChapter.aspx

Bibliography

Allen, J. L. (1975). *Passage through the Garden: Lewis and Clark and the Image of the American Northwest.* Urbana: University of Illinois Press. [A pioneering examination of images and settlement of the American West.]

Allen, J. L. (1978). Division of the Waters: Changing Concepts of the Continental Divide, 1804-44. *Journal of Historical Geography* 4, 357-70. [A study of concepts of the American West.]

Armstrong, Christopher, Matthew Evenden, H.V. Nelles. (2009). *The River Returns An Environmental History of the Bow. Montreal: McGill-Queens University Press.:* . [A study of human impacts on the environment.]Aschmann, Homer. (1959). Evolution of a Wild Landscape and Its Persistence in Southern California. *Annals of the Association of American Geographers* 49, 34-56. [Rare example of Berkeley school historical geography that considered current landscapes.]

Baker, Alan R. H. (2003). *Geography and History: Bridging the Divide.* New York: Cambridge University Press. [A prominent analysis of the realtionships between historical geography and history.]

Baker, Alan R. H. and Billinge, Mark (eds.). (1982). *Period and Place: Research Methods in Historical Geography* Cambridge: Cambridge University Press. [A review of methods in historical geography.]

Bankoff, Greg. (2007). One Island too Many: Reappraising the Extent of Deforestation in the Philippines prior to 1946. *Journal of Historical Geography* 33, 314-34. [A study of human impacts on the environment.]

Barrows, Harlan. (1923). Human Ecology as the Field of Geography. *Annals of the Association of American Geographers* 13 (1), 1-14. [AAG presidential address that spelled out Barrows' view of geography.]

Barton, Gregory. (2001). Empire Forestry and the Origins of Environmentalism. *Journal of Historical Geography* 27 (4), 529-52. [A study of environmental management.]

Bennett, Hugh Hammond. (1928). *Soil Erosion a National Menace*. Washington: U. S. Department of Agriculture. [An appeal for control of soil erosion in the U.S.]

Bennett, Hugh Hammond. (1939). *Soil Conservation*. New York: McGraw-Hill. [A text written to guide environmental management of soil.]

Bennett, Hugh Hammond. (1943). Adjustment of Agriculture to its Environment. *Annals of the Association of American Geographers* 33 (4), 163-989. [The presidential address of H. H. Bennett touting environmental management of soil.]

Biehler, Dawn. (2009). Permeable Homes: A Historical Political Ecology of Insects and Pesticides in US Public Housing. *Geoforum* 40, 1014-1023. [A study of evolving policy towards and understanding of insects in human dwellings.]

©*Encyclopedia of Life Support Systems* (EOLSS)

Biehler, Dawn. (2010). Flies, Manure, and Window Screens: Medical Entomology and Environmental Reform in Early Twentieth-Century US Cities. *Journal of Historical Geography* 36, 68-78. [A study of the emerging awareness of the relationship of insects to public health.]

Blaikie, Piers and Brookfield, Harold. (1987). *Land Degradation and Society*. New York: Methuen. [A collection that considers the harmful impacts of society.]

Bolaane, Maitseo. (2005). Chiefs, Hunters and Adventurers: The Foundation of Okavango/Moremi National Park, Botswana. *Journal of Historical Geography* 31, 241-59. [A study of the creation of protected areas in Africa.]

Boone, Christopher G. (1997a). Cities and the Environment in Historical Perspective. *Historical Geography* 25, 46-48. [Introductory essay to special issue on urban environments.]

Boone, Christopher G. (1997b). Private Initiatives to Make Flood Control Public: The St. Gabriel Levee and Railway Company in Montreal, 1886-1890. *Historical Geography* 25, 100-112. [A study of private investment in managing hazards.'

Boone, C.G., Buckley, G.L. Grove, J. M. and Sister, C. (2009). Parks and People: An Environmental Justice Inquiry in Baltimore, Maryland. *Annals of the Association of American Geographers* 99 (4), 767-87. [An pioneering environmental justice analysis of urban amenities using GIS.]

Bowden, M. J. (1969). The Perception of the Western Interior of the United States, 1800-1870: A Problem in Historical Geosophy. *Proceedings of the Association of American Geographers* 1, 16-21. [A study in historical geosophy.]

Bowden, M. J. (1970). Reconstruction Following Catastrophe: The Laissez-Faire Rebuilding of Downtown San Francisco after the Earthquake and Fire of 1906. *Proceedings of the Association of American Geographers* 2, 22-26. [An early study of recovery following an earthquake.]

Bowden, M. J. (1976). The Great American Desert in the American Mind: The Historiography of a Geographical Notion. In *Geographies of the Mind*, edited by David Lowenthal and Martyn Bowden, 119-147. New York: Oxford University Press. [An historical geosophy treament of interpretations of the arid American west.]

Bowden, M. J. (1982). Geographical Changes in Cities Following Disasters. In *Period and Place,* edited by A. H. R. Baker and Mark Billinge, 114-26. Cambridge: Cambridge University Press. [An early example of historical geography blended with hazards research.]

Bower, Shannon S. (2010). Natural and Unnatural Complexities: Flood Control along Manitoba's Assiniboine River. *Journal of Historical Geography* 36, 57-67. [A study of flood management policy in Canada.]

Bowman, Robert G. (1941). Soil Erosion in Puerto Rico. Ph.D. Dissertation, University of California-Berkeley. [Key example of Berkeley environmental historical geography.]

Brace, Catherine. (1997). Corruption, Pollution, and the Problems of Public Provision: The Garrison Creek Sewer Scandal in Late Nineteenth-Century Toronto. *Historical Geography* 25, 113-23. [A study of public policy and pollution control in Canada.]

Bravo, Michael. (2009). Voices from the Sea Ice: The Reception of Climate Impact Narratives. *Journal of Historical Geography* 35, 256–278. [A study of human understanding of environmental change.]

Brazdil, Rudolf, Pfister, Christian, Wanner, Heinz, von Storch, Hans, and Laterbacher, Jurg. (2005). Historical Climatology in Europe – The State of the Art. *Climatic Change* 70, 363-430. [A review of the sizable literature on historical climate studies in Europe.]

Brigham, Albert P. (1903). *Geographic Influences in American History.* Boston: Ginn & Company. [An early twentieth century example of environmental determinism.]

Brooking, T. and Pawson, E. (2011). *Seeds of Empire. The Environmental Transformation of New Zealand*. London: Palgrave. [A study of human transformation of the environment in New Zealand.]

Brooks, Shirley. (2005). Images of 'Wild Africa': Nature Tourism and the (Re)Creation of Hluhluwe Game Reserve, 1930-1945. *Journal of Historical Geography* 31, 220-40. [A study of the impulses to created a

protected area in Africa.]

Brown, Ralph H. (1948). *Historical Geography of the United States.* New York: Harcourt, Brace & World. [An archive based national historical geography that did not focus on environmental influences.]

Buckley, Geoffrey L. (1998). The Environmental Transformation of An Appalachian Valley, 1850-1906. *Geographical Review* 88 (2), 175-98. [An example of human impacts on the environment.]

Buckley, Geoffrey L. (2010). *America's Conservation Impulse: A Century of Saving Trees in the Old Line State*. Chicago: Center for American Places. [A study of forest management in Maryland.]

Butlin, Robin A. (1993). *Historical Geography: Through the Gates of Space and Time*. London: Edward Arnold. [An overview of the field that discusses reconstruction of past environments.]

Butlin, Robin A. and Neil Roberts. (1995). *Ecological Relations in Historical Times: Human Impact and Adaptation.* Oxford: Blackwell. [A collection of essays on human-environment interactions.]

Butzer, Karl W. (1976). *Early Hydraulic Civilization in Egypt: A Study in Cultural Ecology.* Chicago: University of Chicago Press. [Early example of Butzer’s use of historical and archaeological methods.]

Butzer, Karl W. (1988). Cattle and Sheep from Old to New Spain: Historical Antecedents. *Annals of the Association of American Geographers* 78, 29-56. [A study of the role of European settlers and their livestock in landscape modification in Mexico.]

Butzer, Karl W. (1990). The Indian Legacy in the American Landscape." In *The Making of the American Landscape*, edited by Michael Conzen. 27-50. Boston: Unwin Hyman. [A brief overview of Native American impacts on the landscape.]

Butzer, Karl W. (2002). French Wetland Agriculture in Atlantic Canada and Its European Roots: Different Avenues to Historical Diffusion. *Annals of the Association of American Geographers* 92 (3), 451-470. [An analysis of the French introduction of land drainage in Atlantic Canada.]

Butzer, Karl W. (2005). Environmental History in the Mediterranean World: Cross-Disciplinary Investigation of Cause-and-Effect for Degradation and Soil Erosion. *Journal of Archaeological Science* 32, 1773-800. [An assessment of the causes and impacts of soil erosion in the Mediterranean basin.]

Butzer, Karl W. and Butzer, Elisabeth K. (1997). The Sixteenth-Century Environment of the Central Bajio: Archival Reconstruction from Colonial Land Grants and the Question of Spanish Ecological Impact. In *Culture, Form and Place: Essays in Cultural & Historical Geography*, edited by Kent Mathewson, 89-124. Baton Rouge, La.: Geoscience and Man, 32. 89-124.

Cameron, Laura. (1997). *Openings: A Meditation on History, Method, and Sumas Lake*. Montreal: McGill-Queens University. [An original treatment of human impacts of a lake basin and perceptions of the change.]

Carney, Judith A. (2001). *Black Rice: The African Origins of Rice Cultivation in the Americas.* Cambridge, Mass.: Harvard University Press. [A highly touted example cultural ecology to trace African influences in the Americas.]

Carney, Judith A. and Rosomoff, R.N. (2009). *In the Shadow of Slavery: Africa's Botanical Legacy in the Atlantic World.* Berkeley: University of California Press.

Carswell, Grace. (2006). Multiple Historical Geographies: Responses and Resistance to Colonial Conservation Schemes in East Africa. *Journal of Historical Geography* 32, 398-421.

Carter, Eric D. (2007). Development Narratives and the Uses of Ecology: Malaria Control in Northwest Argentina, 1890-1940. *Journal of Historical Geography* 33, 619-50.

Clark, Andrew H. (1949). *The Invasion of New Zealand by People, Plants and Animals: The South Island.* New Brunswick: Rutgers University Press. [Clark’s classic study of human impacts on New Zealand.]

Clark, Andrew H. (1954). Historical Geography. In *American Geography: Inventory and Prospect*, edited by Preston James and Clarence Jones, 71-105. Syracuse: Syracuse University Press. [An early review of the field of historical geography.]

Clark, Andrew H. (1959). *Three Centuries and the Island: A Historical Geography of Settlement and*

Agriculture in Prince Edward Island, Canada. Toronto: University of Toronto Press. [One of Clark's studies of human transformation of the landscape in the Canadian maritimes.]

Clark, Andrew H. (1968). *Acadia: The Geography of Early Nova Scotia to 1760.* Madison: University of Wisconsin Press. . [One of Clark's studies of human transformation of the landscape in the Canadian maritimes.]

Colten, Craig E. (1986). Industrial Wastes in Southeast Chicago: Production and Disposal, 1870-1970. *Environmental Review* 10, 93-106. [An early example of historical hazardous waste studies.]

Colten, Craig E. (1990a). Environmental Development in the East St. Louis Region, 1890-1970. *Environmental History Review* 14, 92-114. [An early example of historical hazardous waste studies.]

Colten, Craig E. (1990b). Historical Hazards: The Geography of Relict Industrial Wastes. *Professional Geographer* 42, 143-56.

Colten, Craig E. (1991). A Historical Perspective on Groundwater Contamination and Industrial Wastes." *Geographical Review* 81, 215-28.

Colten, Craig E. (1992). Illinois River Pollution Control, 1900-1970. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Craig E. Colten, 193-214. Lanham, Md.: Rowman and Littlefield.

Colten, Craig E. (1998). Historical Geography and Environmental History. *Geographical Review* 88 (2), iii-iv. [Introductory essay to special issue presenting contrasting examples of environmental historical geography and environmental history.]

Colten, Craig E. (2002). Basin Street Blues: Drainage and Environmental Equity in New Orleans, 1890-1930. *Journal of Historical Geography* 28, 235-57. [Study that shifted focus of environmental justice from disamenities to amenities.]

Colten, Craig E. (2006). Contesting Pollution in Dixie: The Case of Corney Creek. *Journal of Southern History* 72, 605-634.

Colten, Craig E. and Lary M. Dilsaver. (1992). Historical Geography of the Environment: A Preliminary Literature Review. In *The American Environment: Interpretations of Past Geographies,* edited by Lary M. Dilsaver and Craig E. Colten, 1-18. Lanham, Md.: Rowman and Littlefield. [Literature review that provided an overview of the field in early 1990s.]

Colten, C. E. and Giancarlo, Alexandra. (2011). Losing Resilience on the Gulf Coast: Hurricanes and Social Memory. *Environment: Science and Policy for Sustainable Development* 53 (4), 6-19.

Colten, Craig E., Hugill, P. Young, T. and Morin, K. (2003). Historical Geography. In *Geography in America at the Dawn of the Twenty-first Century*, edited by Gary Gaile, 149-63. New York: Oxford University Press. [Discussion of the state of historical geography at the turn of the century.]

Colten, C. E. and Sumpter, A. (2008). Social Memory and Resilience in New Orleans. *Natural Hazards* 48, 355-64

Conzen, Michael P. (1993). The Historical Impulse in Geographical Writing about the United States, 1850-1990. In *A Scholar's Guide to Geographical Writing on the American and Canadian Past,* edited by M. A. Conzen, Rumney, T. and Wynn, G., 3-90. Chicago: University of Chicago, Geography Research Paper 235. [A substantial review of historical geography as of the early 1990s.]

Cosgrove, D.E. and Dora, D. V., eds. (2008). *High Places: Cultural Geographies of Mountains, Ice and Science*. London: IB Tauris.

Cosgrove, D. E. and Petts, Geoff. (1990). *Water Engineering and Landscape: Water Control and Landscape Transformation in the Modern Period.* London: Bellhaven Press.

Craddock, Susan. (2000). *City of Plagues: Disease, Poverty, and Deviance in San Francisco*. Minneapolis: University of Minnesota Press.

Cronon, William. (1993). The Uses of Environmental History. *Environmental History Review* 17 (3), 1-22. [Cronon's statement on the field of environmental history.]

Cronon, William. (1991). *Nature's Metropolis: Chicago and the Great West.* New York: W. W. Norton. [Highly touted study of Chicago's environmental impact on its hinterlands.]

Crosby, William. (1972). *The Columbian Exchange: Biological and Cultural Consequences of 1492.* Westport, Conn.: Greenwood Publishing. [A pioneering examination of the geographic spread of European society to the New World and that included the reverse flow.]

Daniels, Stephen and Endfield, Georgina H. (2009). Narratives of Climate Change: Introduction. *Journal of Historical Geography* 35, 215-22.

Darby, H. C. (1940). *The Draining of the Fens*. Cambridge: Cambridge University Press. [Landmark work on wetland drainage in the U.K.]

Darby, H. C. (1951). The Clearing of the English Woodlands. *Geography* 36, 71-83. [Pioneering work on forest clearance.]

Darby, H. C. (1956). The Clearing of the Woodland in Europe. In *Man's Role in Changing the Face of the Earth,* edited by William Thomas, 183-216. Chicago: University of Chicago Press.

Davis, Diana K. (2007). *Resurrecting the Granary of Rome: Environmental History and French Colonial Expansion in North Africa.* Athens: Ohio University Press. [Post-colonial analysis of human transformation of the environment in north Africa.]

Denevan, William. (1967). Livestock Numbers in Nineteenth Century New Mexico and the Problem of Gullying in the Southwest. *Annals of the Association of American Geographers* 57, 691-703. [An analysis of human-induced impacts to the environment in the arid U.S.]

Denevan, William. (2001). *Cultivated Landscapes of Native Amazonia and the Andes*. Oxford: Oxford University Press. [Overview of early cultivation practices in South America.]

Demeritt, David. (1994). The Nature of Metaphors in Cultural Geography and Environmental History. *Progress in Human Geography* 18 (2), 163- 185. [Commentary of the contrasting language used by environmental historians and cultural geographers.]

Diamond, Jared. (1999). *Guns, Germs, and Steel: The Fates of Human Societies*. New York: W. W. Norton. [Popular treatment of diffusion critiqued as revisiting environmental determinism.]

Dilsaver, Lary M. (1992). Stemming the Flow: The Evolution of Controls on Visitor Numbers and Impact in National Parks. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Colten, C. E., 235-56. Lanham, Md.: Rowman and Littlefield.

Dilsaver, Lary M. (2004). *Cumberland Island National Seashore: A History of Conservation Conflict.* Charlottesville: University of Virginia Press. [An in-depth analysis of management practices of a national park unit.]

Dilsaver, Lary M. and Colten, C. E. eds.. (1992). *The American Environment: Interpretations of Past Geographies.* Lanham, Md.: Rowman and Littlefield. [Collection of essays interpreting human impacts on and management of the environment.]

Dilsaver, Lary M. and Tweed, W. (1990). *Challenge of the Big Trees: A Resource History of Sequoia and Kings Canyon National Parks*. Three Rivers, Calif.: Sequoia Natural History Association.

Dilsaver, Lary M. and William Wyckoff. (1999). Agency Culture, Cumulative Causation and Development in Glacier National Park, Montana. *Journal of Historical Geography* 25 (1), 75-92.

Dilsaver, Lary M. and Young, T. (2007). U. S. Parks and Protected Areas: Origins, Meanings and Management. *Historical Geography* 37, 7-11.

Doolittle, William. (2000). *Cultivated Landscapes of Native North America*. Oxford: Oxford University Press. [Overview of early cultivation practices in North America.]

Dora, Della V. (2005). Alexander the Great's Mountain. *Geographical Review* 95 (4), 489-516.

Dora, Della V. (2007). Geo-strategy and the Persistence of Antiquity: Surveying Mythical Hydrographies in the Eastern Mediterranean, 1784–1869. *Journal of Historical Geography* 33, 514–41.

Dora, Della V. (2008). Mountains and Memory: Embodied Visions of Ancient Peaks in the

Nineteenth-century Aegean. *Transactions of the Institute of British Geographers* NS 33, 217–32.

Driever, Steven L. and Werritty, D. M. (1988). Flood Hazard in Kansas City Since 1880. *Geographical Review* 78 (1), 1-19

Duncan, James S. (2007). *In the Shadow of the Tropics: Climate, Race and Biopower*. Aldershot: Ashgate.

Earle, Carville. (1988). The Myth of the Southern Soil Miner: Macrohistory, Agricultural Innovation, and Environmental Change. In *Ends of the Earth: Perspectives on Modern Environmental History*, edited by Donald Worster, 175-210. New York: Cambridge University Press. [One of a pair of articles challenging traditional interpretations of Southern farmers.]

Earle, Carville. (1992). Into the Abyss . . . Again: Technical Change and Destructive Occupance in the American Cotton Belt, 1870-1930. In *The American Environment: Interpretations of Past Geographies,* edited by Lary M. Dilsaver and Craig E. Colten, 53-88. Lanham, Md.: Rowman and Littlefield. [One of a pair of articles challenging traditional interpretations of Southern farmers.]

Ehrenberg, Ralph, ed. (1971). *Pattern and Process: Research in Historical Geography*. Washington, D.C.: Howard University Press. [Collection of essays exemplifying historical geographic research themes.]

Endfield, Georgina H. (2009). Environmental History. In *A Companion to Environmental Geography,* edited by Noel Castree, David Demeritt, Diana Liverman, and Bruce Rhoads, 223-37. New York: Wiley-Blackwell.

Endfield, Georgina H. (2008). *Climate and Society in Colonial Mexico: A Study in Vulnerability*. Malden, Mass.: Blackwell. [Detailed examination of social practices to cope with a harsh climate in colonial Mexico.]

Endfield, Georgina H. and O'Hara, S. L.. 1999. Degradation, Drought, and Dissent: An Environmental History of Colonial Michoacan, West Central Mexico. *Annals of the Association of American Geographers* 89 (3), 402-19.

Evenden, Matthew. (2004). *Fish versus Power: An Environmental History of the Fraser River.* New York: Cambridge University Press.

Evenden, Matthew. (2006). Twenty-first Century Magic. *Journal of Historical Geography* 32 (4), 864-870.

Francaviglia, Richard V. (1992). Mining and Landscape Transformation. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Craig E. Colten, 89–114. Lanham, Md.: Rowman and Littlefield.

Gandy, Matthew. (1999). The Sewers of Paris and the Rationalization of Urban Space. *Transactions of the Institute of British Geographers*, N.S. 24 (1), 23-44.

Gandy, Matthew. (2002). *Concrete and Clay: Reworking Nature in New York.* Cambridge, Mass.: MIT Press. [A major examination of "urban nature" of New York city.]

Gandy, Matthew. (2006). The Bacteriological City and Its Discontents. *Historical Geography 34: 14-25.*

Garcier, Romain. 2010. The Placing of Matter: Industrial Water Pollution and the Construction of Social Order in Nineteenth-Century France. *Journal of Historical Geography* 36, 132-42.

Geores, Martha E. (1996). *Common Ground: The Struggle for Ownership of the Black Hills National Forest*. Lanham, Md.: Rowman and Littlefield.

Glacken, Clarence. (1967). *Traces on the Rhodian Shore*. Berkeley: University of California Press. [The definitive geographical work on classical understanding of nature.]

Glaser, Bruno, and William I. Woods, eds. (2004). *Amazonian Dark Earths: Explorations in Space and Time.* Berlin: Springer-Verlag. [An examination of pre-colonial human-environment relations in the Amazon basin.]

Goddard, Nicholas. (1996). 'A Mine of Wealth'? The Victorians and the Agricultural Value of Sewage. *Journal of Historical Geography* 22 (3), 274-90.

Goodrich E. P. (1916). Some Geographic Problems Incident of the Growth of New York City. *Geographical Review* 2 (3), 184-205.

Gottschalk, L. C. (1945). Effects of Soil Erosion on Navigation in the Upper Chesapeake Bay. *Geographical Review* 35, 217-37.

Goudie, Andrew. (1981). *The Human Impact on the Natural Environment.* Cambridge: MIT Press. [A long-running standard work on human impacts on the environment.]

Graf, William. (1990). *Wilderness Preservation and the Sagebrush Rebellion*. Lanham, Md.: Rowman and Littlefield.

Grufford, Pyrs. (1995). 'A Crusade Against Consumption': Environment, Health and Social Reform in Wales, 1900-1939. *Journal of Historical Geography* 21 (1), 39-54.

Haas, J. Eugene, Kates, R. W., and Bowden, M.. (1977). *Reconstruction Following Disaster.* Cambridge, Mass.: MIT Press.

Hardin, David S. (1992). Laws of Nature: Wildlife Management Legislation in Colonial Virginia. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Craig E. Colten, 137-62. Lanham, Md.: Rowman and Littlefield.

Harris, Cole. (1991). Power, Modernity, and Historical Geography. *Annals of the Association of American Geographers* 81, 671-83.

Hatvany, Matthew G. (2003). *Marshlands: Four Centuries of Environmental Change on the Shores of the St. Lawrence.* Sainte-Foy, Quebec: Le Presses de l'Université Laval.

Henderson, Martha L. (1992). American Indian Reservations: Controlling Separate Space, Creating Separate Environments. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Craig E. Colten, 115-34.. Lanham, Md.: Rowman and Littlefield.

Hewes, Leslie and Frandson, (1952). Occupying the Wet Prairie: The Role of Artificial Drainage in Story County, Iowa. *Annals of the Association of American Geographers* 42 (1), 24-50.

Leslie Hewes and Arthur C. Schmieding. (1956). Risk in the Central Great Plains: Geographical Patterns of Wheat Failure in Nebraska, 1931-1952. *Geographical Review* 46 (3), 375-387

Hilliard, Sam B. (1972). *Hog Meat and Hoe Cake: Food Supply in the Old South, 1840-1860.* Carbondale: Southern Illinois University Press.

Hilliard, Sam B. (1978). Antebellum Tidewater Rice Culture in South Carolina and Georgia. In *European Settlement and Development in North America*, edited by Paul Gibson, 91-115. Toronto: University of Toronto Press.

Hughes, J. Donald. (2006). *What is Environmental History?* Malden, Mass.: Polity Press.

Jakle, John. (1980). Historical Geography: Focus on the 'Geographic Past' and 'Historical Place.' *Environmental Review* 4 (2), 2-5.

Janiskee, Robert. (1980). Socially and Ecologically Responsible Historical Geography. *Environmental Review* 4 (2), 35-40.

Johannessen, Carl. (1971). The Vegetation of the Willamette Valley. *Annals of the Association of American Geographers* 61, 286-302.

Jordan, Terry. (1964). Between the Forest and Prairie. *Agricultural History* 38, 205-16.

Jordan, Terry. (1971). Vegetational Perception and Choice of Settlement Site in Frontier Texas. In *Pattern and Process: Research in Historical Geography*, edited by Ralph Ehrenberg, 244- 57. Washington, D.C.: Howard University Press.

Jordan, Terry and Kaups, M.. (1989). *The American Backwoods Frontier: An Ethnic and Ecological Interpretation*. Baltimore: Johns Hopkins University Press. [Jordan's extension of his frontier scholarship into ecological processes.]

Kates, R. W. (1987). The Road Not Taken: The Road Still Beckoning. *Annals of the Association of American Geographers* 77 (4), 525-34. [A critique of American geography's inability to capture environmental studies.]

Kates, R. W., Colten, C. E., Laska, S. and Leatherman S. P. (2006). Reconstruction of New Orleans after Hurricane Katrina: A Research Perspective. *Proceedings of the National Academy of Sciences* 103 (40), 14653-14660.

Kay, Jeanne. (1977). The Land of La Baye: The Ecological Impact of the Green Bay Fur Trade, 1634-1836. Ph.D. dissertation, University of Wisconsin.

Kay, Jeanne. (1997). Sweet Surrender but What's the Gender: Nature and the Body in the Writings of Nineteenth-century Mormon Women. In *Thresholds in Feminist Geography: Difference, Methodology, Representation*, edited by J. P. Jones, H. L. Nast, and S. M. Roberts, 361-82. Lanham, Md.: Rowman and Littlefield.

Kay, Jeanne and Brown, C. J. (1985). Mormon Beliefs about Land and Natural Resources, 1847-1877. *Journal of Historical Geography* 11 (3), 253-67.

Keeling, Arn. (2007). Charting Marine Pollution Science: Oceanography on Canada's Pacific Coast, 1938-1970. *Journal of Historical Geography* 33, 403-28.

Keller, Richard. (2006). Geographies of Power, Legacies of Mistrust: Colonial Medicine in the Global Present. *Historical Geography* 34, 26-48.

Knox, J. C. (1977). Human Impacts on Wisconsin Stream Channels. *Annals of the Association of American Geographers* 67, 323-42.

Koelsch, William A. (1969). The Historical Geography of Harlan H. Barrows. *Annals of the Association of American Geographers* 59 (4), 632-51.

Kopf, Jennifer. (1997). Neighborhood Hygiene and 'Renewal' in the U.S. South: The Purification of Pralltown during the Civil War Reconstruction an 1960s Urban Renewal Eras. *Historical Geography* 25, 148-64.

Kwashirai, Vimbai C. (2007). Indigenous Management of Teak Woodland in Zimbabwe, 1850-1900. *Journal of Historical Geography* 33, 816-832.

Lambert, David, Martins, L. and Ogborn, M. (2006). "Currents, Visions and Voyages: Historical Geographies of the Sea." *Journal of Historical Geography* 32, 479-93.

Lawrence, Henry W. (1993). The Greening of the Squares of London: Transformations of Urban Landscapes and Ideas. *Annals of the Association of American Geographers* 83 (1), 90-118.

Lawrence, Henry W. (2006). *City Trees: A Historical Geography from the Renaissance through the Nineteenth Century.* Charlottesville: University of Virginia Press. [An extended treatment about parks as nature in the city.]

Lemon, James. (1972). *The Best Poor Man's Country: A Geographical Study of Southeast Pennsylvania*. Baltimore: Johns Hopkins University Press. [One of Andrew Clark's student's examinations of agricultural settlement in Pennsylvania.]

Lorimer, Jamie and Sarah Whatmore. (2009). After the 'King of Beasts': Samuel Baker and the Embodied Historical Geographies of Elephant Hunting in Mid-Nineteenth Century Ceylon. *Journal of Historical Geography* 35, 668-89.

Lowenthal, David. (2000a). *George Perkins Marsh: Prophet of Conservation.* Seattle: University of Washington Press. [A thorough biography of Marsh.]

Lowenthal, David. (2000b). Nature and Morality from George Perkins Marsh to the Millennium. *Journal of Historical Geography*. 26 (1), 3-27.

Lundstrom, Elizabeth. (2008). Mozambique, Neoliberal Land Reform, and the Limpopo National Park. *Geographical Review* 98 (3), 339-55.

McEwen, L. and Werritty, A. (2007). 'The Muckle Spate of 1829': The Physical and Societal Impact of a Catastrophic Flood on the River Findhorn, Scottish Highlands. *Transactions of the Institute of British Geographers* NS 32, 66–89

McManis, Douglas R. (1964). *The Initial Evaluation and Utilization of the Illinois Prairies, 1815-1840.*

©*Encyclopedia of Life Support Systems* (EOLSS)

Chicago: University of Chicago Geography Department Research Paper 64. [One of the early works on settler attitudes and land selection.]

McNeill, John R. (2003). "Observations on the Nature and Culture of Environmental History." *History and Theory* 42 (4): 5-43.

McQuillan, D. A. (1982). The Interface of Physical and Historical Geography: The Analysis of Farming Decisions in Response to Drought Hazards on the Margins of the Great Plains. In *Period and Place,* edited by A. H. R. Baker and Mark Billinge, 136-44. Cambridge: Cambridge University Press.

McQuillan, D. A. (1990). *Prevailing over Time: Ethnic Adjustment on the Kansas Prairies, 1875-1925*. Lincoln: University of Nebraska Press. [An extended analysis of human adjustment to semi-arid environments on the Great Plains.]

Mapedza, Everisto. (2007). Forestry Policy in Colonial and Postcolonial Zimbabwe: Continuity and Change. *Journal of Historical Geography* 33, 833-51.

Matthews, O. Paul. (1992). The Ark: A Tale of Two Rivers. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Craig E. Colten, 163-92. Lanham, Md.: Rowman and Littlefield.

Mathewson, Kent M. forthcoming. "Sauer’s Berkeley School Legacy: Foundation for an Emergent Environmental Geography?" In *Geografía y ambiente en America Latina*, edited by Gerardo Bocco Morelia: UNAM/CIGA.

Meigs, Peveril, III. (1939). Water Planning in the Great Central Valley, California. *Geographical Review* 29, 252-73.

Meinig, Donald W. (1962). *On the Margins of the Good Earth: The South Australia Wheat Frontier 1869-1884.* Chicago: Rand McNally for the Association of American Geographers. [One of the works by Meinig often cited by environmental historians.]

Meinig, Donald W. (1968). *The Great Columbian Plain: A Historical Geography, 1805-1910.* Seattle: University of Washington Press. [One of the works by Meinig often cited by environmental historians.]

Merchant, Carolyn. (2003). Interpreting Environmental History. In *Major Problems in Environmental History*, 2nd, edited by Carolyn Merchant, 20-26. Boston, Mass.: Houghton Mifflin.

Mercier, Michael E. and Christopher G. Boone. (2002). Infant Mortality in Ottawa, Canada, 1901: Assessing Cultural, Economic and Environmental Factors. 28 (4), 486-507.

Merrens, H. Roy. (1969). The Physical Environment of Early America: Images and Image Makers in Colonial South Carolina. *Geographical Review* 59, 530-56. [An analysis of colonial settler assessment of the South’s physical environment.]

Meyer, Judith L. (1996). *The Spirit of Yellowstone: The Cultural Evolution of a National Park.* Lanham, Md.: Rowman and Littlefield.

Meyer, William. (1991). Urban Heat Island and Urban Health: Early American Perspectives. *Professional Geographer* 43, 38-48.

Meyer, William. (1994). Bringing Hypsography Back In: Altitude and Residence in American Cities. *Urban Geography* 15, 505-13. [One of a series of articles on the role of topography in urban settlements.]

Meyer, William. (2005). The Poor on the Hilltops? The Vertical Fringe of a Late Nineteenth-Century American City. *Annals of the Association of American Geographers* 95 (4), 773-788. [One of a series of articles on the role of topography in urban settlements.]

Meyer, William. (forthcoming). Urban Hills as Resources and Resistances. *Geographical Review* 102 (1). [One of a series of articles on the role of topography in urban settlements.]

Meyer-Arendt, Klaus. (1992). Historical Coastal Environmental Changes: Human Response to Shoreline Erosion. In *The American Environment: Interpretations of Past Geographies*, edited by Lary M. Dilsaver and Craig E. Colten, 217-34. Lanham, Md.: Rowman and Littlefield.

Montz, Burrell and Eve C. Gruntfest. (1986). Changes in American Floodplain Occupancy since 1958: The

Experiences of Nine Cities. *Applied Geography* 6, 325-38.

Morehouse, Barbara J. (1996). *A Place Called Grand Canyon: Contested Geographies.* Tucson: University of Arizona Press.

Morin, Karen. (1999). Peak Practices: Englishwomen's 'Heroic' Adventures in the Nineteenth-century American West. *Annals of the Association of American Geographers* 89: 489-514.

Nash, Catherine. (2000). Environmental History, Philosophy and Difference. *Journal of Historical Geography* 26 (1), 23-27

Naylor, Simon. (2006). Historical Geography: Natures, Landscapes, Environments. *Progress in Human Geography* 30 (6): 792-802.

Nelson, Howard J. (1959). The Spread of an Artificial Landscape in Southern California. *Annals of the Association of American Geographers* 49: 24-32. [Rare example of Berkeley school historical geography considering contemporaneous human impacts.]

Norton, William. (1984). *Historical Analysis in Geography*. London: Longman. [A mid-1980s stock taking of methods in historical geography with no explicit environmental chapter.]

Olson, Sherry. (1971). *The Depletion Myth: A History of Railroad Use of Timber*. Cambridge, Mass.: Harvard University Press. [An early examination of conservation policy.]

Olwig, Kenneth R. (1980). Historical Geography and the Society/Nature 'Problematic': The Perspective of J. F. Schouw, G. P. Marsh, and E. Reclus. *Journal of Historical Geography* 6 (1), 29-45.

Parkins, A. E. (1918). The Indians of the Great Lakes Region and their Environment. *Geographical Review* 6, 504-12.

Parsons, James J. (1981). Human Influences on the Pine and Laurel Forests of the Canary Islands. *Geographical Review* 71, 253-71.

Pennington, Campbell W. (1963). *The Tarahumar of Mexico: Their Environment and Material Culture.* Guadalajara: Editorial Agata.

Phillips, Jonathan. (1997). A Short History of a Flat Place: Three Centuries of Geomorphic Change in the Croatan. *Annals of the Association of American Geographers* 87, 197-216.

Phillips, Richard. (2002). Imperialism and the Regulation of Sexuality: Colonial Legislation on Contagious Diseases and Ages of Consent. *Journal of Historical Geography* 28 (3), 339-62.

Pipkin, John S. (2005). The Moral High Ground in Albany: Rhetorics and Practices of an 'Olmstedian' Park, 1855-1875. *Journal of Historical Geography* 31, 666-87.

Powell, J. M. (1976). *Environmental Management in Australia, 1788-1914: Guardians, Improvers and Profit.* Melbourne: Oxford University Press. [One of a series on environmental management in Australia.]

Powell, J. M. (1977). *Mirrors for the New World: Images and Image-Makers in the Settlement Process.* Dawson: Archon Books.

Powell, J. M. (1989). *Watering the Garden State: Water, Land and Community in Victoria, 1834-1988.* Sydney: Allen Unwin. [One of a series on environmental management in Australia.]

Powell, J. M. (1996). Historical Geography and Environmental History: An Australian Interface. *Journal of Historical Geography* 22 (3), 253-73. [A comparison of historical geography and environmental history.]

Powell, J. M. 2002. Environment and Institutions; Three Episodes in Australian Water Management, 1880-2000. *Journal of Historical Geography* 28 (1), 100-14.

Powell, J. M. (2007). 'Dominion over Palm and Pine': The British Empire Forestry Conferences, 1920-1947. *Journal of Historical Geography* 33, 852-77.

Prince, Hugh. (1997). *Wetlands of the American Midwest: A Historical Geography of Changing Attitudes.* Chicago: University of Chicago Press. [An example of Darby's approach to wetlands drainage to the United States.]

©*Encyclopedia of Life Support Systems* (EOLSS)

Puelo, Thomas J. (2010). Baroque Disruptions in Val Di Noto, Sicily. *Geographical Review* 100 (4), 476-493.

Pulido, Laura. (2000). Rethinking Environmental Racism: White Privilege and Urban Development in Southern California. *Annals of the Association of American Geographers* 90 (1), 12-40. [A revision of the environmental justice approach.]

Raup, H. F. (1959). Transformation of Southern California to a Cultivated Land. *Annals of the Association of American Geographers* 49, 58-78.

Revill, G. (2007). William Jessop and the River Trent: Mobility, Engineering and the Landscape of Eighteenth-century 'Improvement.' *Transactions of the Institute of British Geographers* NS 32, 201–16.

Roche, M. M. (1987). *Forest Policy in New Zealand, An Historical Geography 1840-1919.* Wellington: Dunmore Press.

Rossiter, David A. (2007). Lessons in Possession: Colonial Resource Geographies in Practice on Vancouver Island, 1859-1865. *Journal of Historical Geography* 33, 770-90.

Rostlund, Erhard. 1956. Twentieth Century Magic. *Landscape* 5, 23-26.

Sakakibara, Chie. (2008). 'Our Home is Drowning': Inupiat Storytelling and Climate Change in Point Hope, Alaska. *Geographical Review* 98 (4), 456-75.

Sauder, Robert. (1989a). Patenting an Arid Frontier: Use and Abuse of the Public Lands in the Owens Valley, California. *Annals of the Association of American Geographers* 79, 544-69.

Sauder, Robert. (1989b). Sod Land verus Sage Brush: Earl Land Appraisal and Pioneer Settlement in an Arid Intermountain Frontier. *Journal of Historical Geography* 15 (4), 402-19.

Sauer, Carl O. (1925). The Morphology of Landscape. *University of California Publications in Geography* 2 (2), 19-54.

Sauer, Carl O. (1941). Foreword to Historical Geography. *Annals of the Association of American Geographers* 31, 1-24. [Sauer's programmatic statement on the central role of historical geography.]

Sauer, Carl O. (1944). A Geographic Sketch of Early Man in America. *Geographical Review* 34, 529-73.

Sauer, Carl O. (1952). *Agricultural Origins and Dispersals*. New York: American Geographical Society.

Sauer, Carl O. (1966). *The Early Spanish Main.* Berkeley: University of California Press

Sauer, Carl O. (1968). *Northern Mists*. Berkeley: University of California Press.

Semple, Ellen Churchill. 1903. *American History and Its Geographic Condition.* Boston: Houghton Mifflin.

Sheail, John. (1976). *Nature in Trust: The History of Nature Conservation in Britain.* London: Blackie.

Sheail, John. (1980). *Human Ecology: The Documentary Evidence*. Cambridge: Institute of Terrestrial Ecology.

Sheail, John. (1997). The Sustainable Management of Industrial Watercourses: An English Historical Perspective. *Environmental History* 2 (2), 197-215.

Sheail, John. (1998). 'Never Again': Pollution and the Management of Watercourses in Postwar Britain. *Journal of Contemporary History* 33 (1), 117-33.

Sheail, John. (2005). 'Burning Bings': A Study of Pollution Management in Mid-Twentieth Century Britain. *Journal of Historical Geography* 31: 134-48.

Sidawi, Stephen. (1997). Planning Environmental Racism: The Construction of the Industrial Suburban Idea in Los Angeles County in the Early Twentieth Century. *Historical Geography* 25, 83-199.

Simmons, I. G. (1989). *Changing the Face of the Earth: Culture, Environment, History.* Oxford: Basil Blackwell. [A geographer's overview of human impacts on the environment.]

Simmons, I. G. (1993). *Environmental History: A Concise Introduction*. Oxford: Blackwell.

Simmons, I. G. (2008). *Global Environmental History.* Chicago: University of Chicago Press.

Sioh, Maureen. (2004). An Ecology of Poscoloniality: Disciplining Nature and Society in Malaya, 1948-1957. *Journal of Historical Geography* 30 (2004), 729-46.

Smith, J. Russell. (1916). The Oak Tree and Man's Environment. *Geographical Review* 1 (1), 3-19.

Sluyter, Andrew. (2002). *Colonialism and Landscape: Post Colonial Theory and Applications*. Lanham, Md.: Rowman and Littlefield.

Smallman-Raynor, Matthew and Cliff, A. D. (2001). Epidemic Diffusion Processes in a System of U.S. Military Camps: Transfer Diffusion and the Spread of Typhoid Fever in the Spanish-American War, 1898. *Annals of the Association of American Geographers* 91 (1), 71-91

Smallman-Raynor, Matthew and Cliff, A. D. (2004). The Geographical Spread of Cholera in the Crimean War: Epidemic Transmission in the Camp Systems of the British Army of the East, 1854-55. *Journal of Historical Geography* 30, 32-69.

Smallman-Raynor, Matthew, Nettleton, C. and Cliff, A. D. (2003). Wartime Evacuation and the Spread of Diseases: Epidemiological Consequences of the Dispersal of Children from London during World War II. *Journal of Historical Geography* 29 (3), 396-421.

Smith, S. D. (2011). Volcanic Hazard in a Slave Society: The 1812 Eruption of Mount Soufriere in St. Vincent. *Journal of Historical Geography* 37, 55-67.

Starrs, Paul F. (1998). *Let the Cowboy Ride: Cattle Ranching in the American West*. Baltimore: Johns Hopkins University Press.

Swyngedouw, Erik. (1999). Modernity and Hybridity: Nature, *Regeneracionismo*, and the Production of the Spanish Waterscape, 1890-1930. *Annals of the Association of American Geographers* 89 (3), 443-65.

Swyngedouw, Erik. (2004). *Social Power and the Urbanization of Water: Flows of Power*. New York: Oxford University Press.

Swyngedouw, Erik. (2006). Metabolic Urbanization: The Making of Cyborg Cities. In *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*, edited by Nik Heynen, Maria Kaika, and Erik, Swyngedouw, 21-40. New York: Routledge.

Swyngedouw, Erik. (2007). Technonatural Revolutions: The Scalar Politics of Franco's Hydro-social Dream for Spain, 1939–75. *Transactions of the Institute of British Geographers* NS 32, 9–28.

Taylor, Vanessa, Hether Chappells, Will Medd, and Frank Trentmann. (2009). Drought is Normal: The Socio-economic Evolution of Drought and Water Demand in England and Wales, 1893-2006. *Journal of Historical Geography* 35, 568-91.

Thomas, William L. ed. (1956). *Man's Role in Changing the Face of the Earth, 2 vols.* Chicago: University of Chicago Press. [Major collection of articles that address human impacts on the environment.]

Thompson, Kenneth. (1961). Riparian Forests of the Sacramento Valley, California. *Annals of the Association of American Geographers* 51 (3), 294-315. [One of a series of articles that revived environmental historical geography.]

Thompson, Kenneth. (1969a). Irrigation as a Menace to Health in California: A Nineteenth Century View. *Geographical Review* 59 (2), 195-214. [One of a series of articles that revived environmental historical geography.]

Thompson, Kenneth. 1969b. Insalubrious California: Perception and Reality. *Annals of the Association of American Geographers* 59 (1), 50-64. [One of a series of articles that revived environmental historical geography.]

Trewartha, Glenn T. (1940). A Second Epoch of Destructive Occupance in the Driftless Hill Land." *Annals of the Association of American Geographers* 30, 109-42.

Trimble, Stanley. (1974). *Human Induced Soil Erosion on the Southern Piedmont.* Ankeny, Iowa: Soil and Water Conservation Society. [A pioneering work on the causes of erosion on the American South.'

Trimble, Stanley. (1984). Perspectives on the History of Soil Erosion Control in the Eastern United States.

Agricultural History 59 (2), 162-80.

Trimble, Stanley. (1992). Preface. In *The American Environment: Interpretations of Past Geographies,* edited by Lary M. Dilsaver and Craig E. Colten, xv-xxii. Lanham, Md.: Rowman and Littlefield.

Tuan, Yi-Fu. (1968). *The Hydrologic Cycle and the Wisdom of God: A Theme in Geoteleology*. Toronto: University of Toronto Press.

Tuason, Julie. (1997). *Rus in Urbe*: The Spatial Evolution of Urban Parks in the United States. *Historical Geography* 25, 124-47.

Turner, B. L. III, et al., eds. (1990). *The Earth As Transformed by Human Action.* Cambridge: Cambridge University Press. [An updating of the classic *Man's Role in Changing the Face of the Earth*.]

Ueland, Jeff and Warf, B. (2006). Racialized Topographies: Altitude and Race in Southern Cities. *Geographical Review* 96, 50-78.

Vale, Thomas R. (1987). Vegetation Change and Park Purposes in the High Elevations of Yosemite National Park, California. *Annals of the Association of American Geographers* 77 (1), 1-18

Vale, Thomas R. (1988). Clearcut Logging, Vegetation Dynamics, and Human Wisdom. *Geographical Review* 78 (4), 375-386

Vale, Thomas R. (2005). *The American Wilderness: Reflection on Nature Protection in the United States.* Charlottesville: University of Virginia Press.

Walker, Richard. (1994). Editor's Introduction. *Anitpode* 26 (2), 113-15. [Special issue that contains a series of reviews of Cronon's *Nature's Metropolis*.]

Wallach, Bret. (1980). Logging in Maine's Empty Quarter." *Annals of the Association of American Geographers* 70, 542- 52. [One of a series on human interactions with the environment.]

Wallach, Bret. (1981). Sheep Ranching in the Dry Quarter of Wyoming. *Geographical Review* 71, 51-63. [One of a series on human interactions with the environment.]

Wallach, Bret. (1991). *At Odds with Progress: Americans and Conservation.* Tucson: University of Arizona Press. [One of a series on human interactions with the environment.]

Walwork, Kenneth L. (1974). *Derelict Land: Origins and Prospects of a Land-Use Problem.* London: David and Charles.

Weiner, Douglas R. (2005). A Death-Defying Attempt to Articulate a Coherent Definition of Environmental History. *Environmental History* 10 (3), 404-20. [An overview of environmental history.]

Wells, J., G.L. Buckley, and C.G. Boone. 2008. "Separate but Equal? Desegregating Baltimore's Golf Courses." *Geographical Review* 98 (2):151-170.

West, Robert C. (1952). Folk Mining in Columbia. *Economic Geography* 28, 323-30.

Whatmore, Sarah. (2002). *Hybrid Geographies: Natures Cultures Spaces.* London: Sage.

White, Gilbert F., et al. (1958). *Changes in Urban Occupance of Flood Plains in the United States.* Chicago: University of Chicago Department of Geography Research Paper 57. [Influential study of the costs of flooding.]

White, Richard. (1985). American Environmental History: The Development of a New Historical Field. *Pacific Historical Review* 54 (3), 297-335.

Wigen, Karen and Harland-Jacobs, J. (1999). Introduction. *Geographical Review* 89 (2), ii.

Williams, Michael. (1974). *The Making of the South Australian Landscape: A Study in the Historical Geography of Australia.* London: Academic Press.

Williams, Michael. (1989). *Americans and their Forests: A Historical Geography*. Cambridge: University of Cambridge Press. [The definitive work on forest management at the national scale in the U.S.]

Williams, Michael. (1994). The Relations of Environmental History and Historical Geography. *Journal of Historical Geography* 20 (1), 3-21. [A comparative examination of environmental history and historical

geography.]

Williams, Michael. (1998). The End of Modern History. *Geographical Review* 88 (2), 275-300.

Williams, Michael. (2003). Carl O. Sauer and the Legacy of Man's Role. In *Culture, Land and Legacy: Perspectives on Carl O. Sauer and Berkeley School Geography, v. 37*, edited by Kent Mathewson and Martin Kenzer, 217-30. Baton Rouge, La. : Geoscience Publications, Department of Geography and Anthropology, Louisiana State University.

Williams, Michael. (2006). *Deforesting the Earth: From Prehistory to Global Crisis.* Chicago: University of Chicago Press.

Wilson, Robert. (2010). *Seeking Refuge: Birds and Landscape of the Pacific Flyway.* Seattle: University of Washington Press.

Wishart, David. (1979). The Fur Trade of the American West, 1807-40 : A Geographical Synthesis. Lincoln: University of Nebraska Press.

Wolmer, William. (2005). Wilderness Gained, Wilderness Lost: Wildlife Management and Land Occupations in Zimbabwe's Southeast Lowveld. *Journal of Historical Geography* 31, 260-80.

Worster, Donald (1988). Doing Environmental History. In *Ends of the Earth: Perspectives on Modern Environmental History*, edited by Donald Worster, 289-307. New York: Cambridge University Press.

Wright, J. B. (1993). *Rocky Mountain Divide: Selling and Saving the West.* Austin: University of Texas Press.

Wright, John K. (1925). *The Geographical Lore at the Time of the Crusades.* New York: Dover.

Wright, John K. (1947). *Terrae Incognitae*: The Place of Imagination in Geography. *Annals of the Association of American Geographers* 37, 1-15.

Wynn, Graeme. (2006). *Canada and Arctic North America: An Environmental History.* Santa Barbara, Calif.: ABC-CLIO.

Wynn, Graeme. (1997). Remapping Tutira: Contours in the Environmental History of New Zealand. *Journal of Historical Geography* 23, 418-46.

Wynn, Graeme. (1993). The Writing of Canadian Historical Geography. In *A Scholar's Guide to Geographical Writing on the American and Canadian Past,* edited by M. A. Conzen, Thomas Rumney, and Graeme Wynn, 91-124. Chicago: University of Chicago Press.

Wynn, Graeme. (1981). *Timber Colony: A Historical Geography of Early Nineteenth Century.* New Brunswick. Toronto: University of Toronto Press.

Young, Terence. (2006). False, Cheap, and Degraded: When History, Economy and Environment Collided at Cades Cove, Great Smoky Mountains National Park. *Journal of Historical Geography* 32, 169-89.

Young, Terence. (2004). *Building San Francisco's Parks: 1850-1930.* Baltimore: Johns Hopkins University Press.

Biographical Sketch

Craig E. Colten is the Carl O. Sauer Professor of Geography at Louisiana State University (LSU). He earned his Ph.D. at Syracuse University in 1984 after receiving an M.A. degree from LSU in 1978. He spent a decade working with the Illinois State Museum managing a research team concerned with the historical geography of hazardous wastes. Following that experience, he moved into the private sector and managed the Washington, DC office of a environmental consulting company. In 1996, he accepted a position with Texas State University and spent the next four years there. For over a decade he has been employed with Louisiana State University. His principal publications include *The Road to Love Canal* (1996), *An Unnatural Metropolis* (2005), and *Perilous Place, Powerful Storm* (2009). He has also served as editor for the Geographical Review (2007-2012).

©*Encyclopedia of Life Support Systems* (EOLSS)