### <u>Twenty-First Century Perspectives on</u> <u>the Eighteenth Century</u>



Comments on the American Revolution Reborn

The essays that were delivered at the American Revolution Reborn conference are substantive and creative, and in their larger iterations, they will surely make real contributions to our understanding of the unrest on North America's eastern seaboard in the 1770s. Instead of reviewing those works, however, I would like to take the opportunity to consider what was not discussed, to outline themes and subjects that were absent from the proceedings in Philadelphia. The conference sought "new perspectives for the twenty-first century," and though a number of papers identified new avenues of exploration, I wonder if we need to be still more adventurous if we wish to chart a course that captures the imagination of coming generations. We could strike out in any number of new directions, but in this brief reconnaissance, I will identify four that seem pertinent to both the 1700s and to our lives today.

# The Environment

With the exception of David Hsiung's wonderful essay, the environment was notably absent from the work presented at the American Revolution Reborn conference, though it is difficult to envision a more relevant perspective for the twenty-first century. Species extinction, invasive species, zoonosis, climate change—these are words that speak to current concerns. Open the newspaper (I should say go to the *Times* URL), and there is yet another alarming story about sudden beehive collapse or white-nose syndrome, the fungus destroying bats in North America. Or about tornados, droughts, polar vortexes, and global warming.

Though climate has long been a subject within the historian's ken, global warming has sparked renewed interest in the subject, and scholars are exploring the cultural, political, and economic consequences of climate change with increasing urgency. Geoffrey Parker investigates the worldwide impact of disruptive weather patterns in the seventeenth century in *Global Crisis: War, Climate Change, and Catastrophe in the Seventeenth Century.* And Sherry Johnson tackles a related subject in her recent book *Climate and Catastrophe in Cuba and the Atlantic World in the Age of Revolution.* As she pointed out in a recent *William and Mary Quarterly* article, the unusual climate fluctuations in the Age of Revolution had implications for mainland as well as insular colonists. But that is just the tip of an iceberg that is worth exploring further.

In what ways will digital humanities change and enhance the study of the American Revolution?

## **Biological Sciences**

Like the environmental sciences, the biological sciences may help us map new terrain in Revolutionary America. The discipline grows daily by leaps and bounds, and at least one part of it-emerging infectious diseases-has crossed over from the pages of *Science*and *Nature* into the public arena, as suggested by a spate of popular books on the subject (*Hot Zone, Killer Germs, Rising Plague*) and by Steven Soderbergh's feature film *Contagion*. Elizabeth Fenn's *Pox Americana* is a brilliant example of what can be accomplished by a historian who takes biology and epidemiology seriously, as is J. R. McNeill's *Mosquito Empires*, which contains several chapters relevant to the eighteenth century.

Those studies are forerunners in an interdisciplinary enterprise that will continue to advance. In the near future, it may be possible to write an early American history that considers the role of gut microbiota, which, as scientists are documenting, play a critical role in everything from obesity to disease progression. Perhaps it will even be possible to explore historical epigenetics—how the environment in the wider world and in the womb shaped gene expression—though such path-breaking work would for the moment have to be largely speculative.

### **Geographic Information Systems**

GIS (geographic information systems) is a third direction worth pursuing. It is everywhere in our lives today, and is at the root of every location-based app, including the ubiquitous Google Maps. As a historical tool, it gives scholars the ability to store information spatially and to explore spatial correlations. Ironically, though GIS did not make an appearance at the conference, Revolutionary Philadelphia is the subject of at least two major GIS projects, one created by Nancy Hagedorn and Ann Deakin, the other by <u>Billy Smith and Paul</u> <u>Sivitz</u>. In addition, the <u>Greater Philadelphia GeoHistory Network</u> collects geographically organized historical information about the city from all eras.

This enormously powerful and flexible technology could have all kinds of applications to early America—from plotting population to mapping land use, crime, markets, epidemics, and the like. Brian Donahue used it with award-winning results in his book *The Great Meadow*. I am currently plotting the North American population between 1500 and 1790, using a combination of historical maps, county-level population statistics, and statistical modeling. (Updates to this project will be posted at www.ehistory.org.)

# **Digital Humanities**

A fourth direction leads to the digital humanities. The meaning of the term is frustratingly nebulous—it encompasses the digitization of traditional printed sources, the statistical analysis of texts, and innovative experiments in crowd-sourcing—and many existing projects unintentionally underscore the difficulty of building and maintaining easy-to-use, functioning Web applications. Despite these growing pains, the potential of Web-based projects to reinvigorate a profession that is too reliant on the monograph is very real. Crowd-sourcing-harnessing the knowledge of thousands of people-makes it possible to accomplish a much larger project than any one or two scholars could undertake on their own. It also can engage a broad public audience in ways that are not possible with most books. In collaboration with Steve Berry, my fellow co-director at eHistory.org, I recently completed one such project, IndianNation.org. A kind of Facebook for the dead, the site contains a profile page for every Native American on the 1900 census and invites the public to upload documents, photos, and stories. With the assistance of Elizabeth Fenn, we have also created an <u>interactive site</u> mapping every reference to the great smallpox epidemic that swept through North America in the 1770s.

#### West of the Revolution

It is not by chance that Fenn's work on smallpox is continental in scope and Parker's on climate change is global. Viruses and weather patterns do not honor political borders. We have a better understanding today than we did in the twentieth century that environmental transformations cascade across the land, with impacts felt far away. We recognize that we are not often in control of our lives, that in an age of global trade decisions made an ocean away by people we have never met can affect our lives, and that microscopic viruses and invasive fungi can do the same.

If and when we turn to these subjects, I wonder if the American Revolution will still occupy its central, dominant place in the study of early American history. Perhaps, as we increasingly appreciate the manifold ways that we are interdependent—on bacteria and bees, on climate and keystone species—our focus on the Declaration of Independence will wane.

In fact, in the 1770s in North America there were numerous regions undergoing their own tumultuous revolutions that underscore human interdependence, as I discuss in my forthcoming book, *West of the Revolution: An Uncommon History of* 1776. In Alaska, Russians were moving up the Aleutian archipelago, destroying sea otters as they went, transforming the ocean environment and the island communities they invaded. In San Francisco, the Spanish established the first European colony in the area, triggering an environmental cataclysm that most of us can only imagine. In the Black Hills, Lakota migrants founded their own colony, part of the environmental transformation of the Great Plains that was set off by the rise of equestrian bison hunting. In Saskatchewan, the Hudson's Bay Company built its first inland trading post, the initial step in a transcontinental race for beaver, a keystone species whose disappearance remade entire forests in ways that are far-reaching and revolutionary. Across the continent, people struggled to come to terms with their rapidly changing world.

Imagine if the most renowned departments in early American history encouraged their graduate students not to locate a bit of untrammeled ground on the Revolution's well-trod eastern seaboard but to strike out for the West. The subject matter of early American history would be revolutionized at a stroke, making an old field new overnight. All this is to say that our search for new perspectives for the new century may take us to places that we have not yet visited.

#### Further reading

On the East-Coast bias of early American history, see Claudio Saunt, "Go West: Mapping Early American Historiography," *William and Mary Quarterly* 65:4 (October 2008): 745-78; and Saunt, *West of the Revolution: An Uncommon History of* 1776 (New York, 2014). On climate change and history, see Sherry Johnson, "El Niño, Environmental Crisis, and the Emergence of Alternative Markets in the Hispanic Caribbean, 1760s-70s," William and Mary Quarterly 62:3 (July 2005): 365-410; Johnson, Climate and Catastrophe in Cuba and the Atlantic World in the Age of Revolution (Chapel Hill, N.C., 2011); and Geoffrey Parker, Global Crisis: War, Climate Change, and Catastrophe in the Seventeenth Century (New Haven, Conn., 2013).

Books that popularize epidemiology include Richard Preston, The Hot Zone (New York, 1994); Brad Spellberg, Rising Plague: The Global Threat from Deadly Bacteria and Our Dwindling Arsenal to Fight Them (Amherst, N.Y., 2009); and Barry E. Zimmerman, Killer Germs: Microbes and Diseases that Threaten Humanity (rev. and updated. Chicago, 2003). Two outstanding works that merge history and the biological sciences are Elizabeth A. Fenn, Pox Americana: The Great Smallpox Epidemic of 1775-82 (New York, 2001); and J.R. McNeill, Mosquito Empires: Ecology and War in the Great Caribbean, 1620-1914 (New York, 2010).

For basic introductions to epigenetics and gut biota, see respectively Nessy Carey, The Epigenetics Revolution: How Modern Biology is Rewriting Our Understanding of Genetics, Disease, and Inheritance (New York, 2012); and "Human Microbiota," Science (special supplement). For a cautionary note on using epigenetics to understand human behavior, see Greg Miller, "The Seductive Allure of Behavioral Epigenetics, Science 329: 5987 (July 2, 2010): 24-27.

For an introduction to historical GIS and the digital humanities, see David J. Bodenhamer, John Corrigan, and Trevor M. Harris, eds., *GIS and the Future of Humanities Scholarship* (Bloomington, Ind., 2010). An award-winning example of historical GIS is Brian Donahue, *The Great Meadow: Farmers and the Land in Colonial Concord* (New Haven, Conn., 2007). The environmental and biological threats that we face today are briefly outlined in Matthew C. Fisher, et al., "Emerging Fungal Threats to Animal, Plant and Ecosystem Health," *Nature* 484:7393 (April 12, 2012): 186-94.

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