

USING LOCAL HISTORY TO UNDERSTAND NATIONAL THEMES: THE YELLOW FEVER EPIDEMIC IN PHILADELPHIA IN 1793

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College teachers of American history cover national themes such as the nature of the American Revolution and the establishment of the federal government because students must understand them if they are to gain a reliable knowledge of America's past. On the other hand, local history topics can be extremely valuable when they show larger historical themes from the ground up, so to speak. In addition, local topics offer manageable and focused research projects for students taking a variety of courses. As one example, the study of Philadelphia and its people during the yellow fever epidemic of 1793 illustrates both important local issues and larger national themes. Using Philadelphia as a microcosm, students can discern race and gender at work in American society, as well as discovering how medicine and politics interacted in the early Republic's political party system. The epidemic also shows the tension between strict and loose construction of the Constitution as President George Washington struggled with constitutional problems caused by the outbreak of disease in Philadelphia. These topics provide useful material to supplement lectures and spark discussion among students and offer abundant sources and opportunities for undergraduate research.

It seems incongruous that Philadelphia, the new nation's capital, its leading city, the center of the American Enlightenment, the focus of Benjamin Franklin's efforts to do good for his community, should have succumbed in 1793 to a vicious outbreak of yellow fever that killed as many as 5000 people. Since doctors had no idea of the disease's cause, they were unable to prevent its spread. People who could afford to leave fled the city to avoid contagion. National, state, and local officials abandoned Philadelphia, leaving the sick to die in squalor. Citizens were so distraught that they fired guns in the streets to clear the air of the miasmas some believed caused yellow fever, burned tar and tobacco in their houses, and carried garlic with them wherever they went. In this crisis Mayor Matthew Clarkson stayed at his desk and called for volunteers to bury the dead and succor invalids and orphans. A small band of altruistic white men and members of the free black community came forward to perform those loathsome tasks.¹

¹For a scholarly overview of the epidemic that is also a good read, see J.H. Powell, *Bring Out Your Dead: The Great Plague of Yellow Fever in Philadelphia in 1793* (Philadelphia: University of Pennsylvania Press, 1949, reprinted 1993).

European traders had unwittingly spread yellow fever from Africa to the New World where its historical significance can hardly be exaggerated. Philadelphia suffered terribly in 1793, in the second of three outbreaks the city endured in the 1790s, but Philadelphia's troubles were repeated elsewhere. The 30,000 French soldiers Napoleon sent to Haiti in 1802 to recapture the former colony from rebel slaves were devastated by yellow fever. Consequently, the French emperor gave up his ambition of re-establishing the French empire in the New World and offered to sell Louisiana at a bargain rate to the United States. Success at preventing outbreaks of yellow fever even made possible the building of the Panama Canal in the early twentieth century, a project that the French had abandoned years earlier because of the enormous toll tropical diseases had taken on workers.²

Yellow fever is spread by the *Aedes aegypti* mosquito, which spawns in stagnant water and carries the disease by biting a victim and passing on the virus to someone else. In 1881, Dr. Carlos Finlay of Havana, Cuba, made the connection between mosquitoes and yellow fever, but his conclusions were untested. However, after the Spanish-American War, the Yellow Fever Commission, led by U.S. Army physician Walter Reed, came to Havana and the two doctors met. Reed tested the Cuban doctor's hypothesis and found that when the city was cleared of stagnant water, the disease did indeed disappear. In 1905, yellow fever appeared in New Orleans, but U.S. Public Health Service workers successfully curbed it by eliminating mosquitoes from the city. But in the early years of the Republic, when Dr. Benjamin Rush announced on August 19, 1793, that yellow fever was in Philadelphia, neither he nor the other doctors knew any effective means of combating it.

The city's founder, William Penn, had designed Philadelphia as the center of his holy experiment. In keeping with the tenets of Quakerism, he assumed that inhabitants would be at peace with the Indians; their town, therefore, would not need the protective walls of contemporary European cities. But Penn did design Philadelphia in such a way as to protect it from two catastrophes he had experienced in England: the outbreak of bubonic plague in London in 1665 and the great fire that devastated the city the following year. He drew up a plan for a large town stretching east and west between the Delaware and Schuylkill Rivers, with home lots large enough to prevent fires spreading and to keep the air wholesome. But to the merchants and craftsmen who settled in the city, Philadelphia's commercial possibilities were far more important than sticking to the founder's plan. They built their businesses close together facing the Delaware, intending to export Pennsylvania's produce and import whatever the Old and New World had to offer. These people spread out along the riverbank and declined to move west toward the great plaza that Penn had designed as the center of his city.³

²William H. McNeill, *Plagues and Peoples* (New York: Anchor Press/Doubleday, 1976), 266, 281.

³Mary Maples and Richard S. Dunn, "The Founding, 1681-1701," in Russell F. Weigley, ed., *Philadelphia: A 300-Year History* (New York: W.W. Norton and Co., 1982), 3-16.

By the mid 1700s, floods of immigrants had settled the city's hinterlands, and Philadelphia prospered. Wealth and the inclinations of its proud citizens made Philadelphia the cultural and social center of North America, with the Library Company of Philadelphia, the American Philosophical Society, the College of Physicians, and two colleges. Great buildings went up—the State House, Christ Church, and the Pennsylvania Hospital—while wealthy men built magnificent mansions. After the American Revolution, the city retained its reputation as a place that valued scientific experiment, though its scientists did not attain to the wonders of Franklin's investigations of the natural world.⁴ But these glories must be judged beside the fact that the city was filthy, that it lacked both a sewer system and a source of safe water.

Even after the city received a charter, it remained in a disgusting state: The city's streets "presented a scene of dirt, mud, garbage, animal excrement, and general disorderliness all pervaded by the odor of decaying garbage and seething in accordance with the season with flies, mosquitoes, and roaches."⁵ Many people dumped refuse into the street where it putrefied or was eaten by animals. By 1750 sidewalks existed, and there were efforts at building underground drainage channels, though the latter were private, not public, efforts. Water was pumped from either private or public wells, but no attempt was made to test its quality. The cause of this neglect was an underpowered, underfunded city government with little revenue for public improvements. In these circumstances the coming of fall meant the outbreak of disease, usually in the form of fevers and, less frequently, in the form of yellow fever.

In Philadelphia, in the fall of 1793, yellow fever spread rapidly while doctors argued over its cause and treatment. Some physicians believed that the disease originated in miasmas given off by a putrefied cargo of coffee abandoned on a city wharf. No one knew what treatment would cure yellow fever's horrible symptoms of black vomit, yellow skin, and bleeding from the nose. Students find it interesting to investigate the state of medical knowledge at the time. The humoral theory, popular since ancient times, attributed sickness to an imbalance of the humors of blood, phlegm, black bile, and yellow bile; medical treatment attempted to redress that balance. In the 1700s, doctors had come to believe that illness was also caused by the over- or understimulation of blood vessels and nerve channels. Doctors saw this theory, called "solidism," as supplementary to the humoral theory.⁶ Even with an understanding of the state of medical theory, students find it hard to explain why Dr. Benjamin Rush began

⁴Henry F. May, *The Enlightenment in America* (New York: Oxford University Press, 1976), 212.

⁵Edwin B. Bonner, "Village into Town: 1701–1746," in Weigley, *Philadelphia*, 57.

⁶J. Worth Estes, "Introduction: The Yellow Fever Syndrome and its Treatment in Philadelphia, 1793," in J. Worth Estes and Billy G. Smith, eds., *A Melancholy Scene of Desolation: The Public Response to the 1793 Philadelphia Yellow Fever Epidemic* (Canton, MA: Science History Publications/USA for the College of Physicians of Philadelphia and the Library Company of Philadelphia, 1997), 8–9.

to use extreme, even harmful measures to combat the epidemic. Rush, a signer of the Declaration of Independence and a leading doctor in Philadelphia, adopted a remedy that involved harsh purging with five times the usual dose of mercurial purgatives which had the effect of turning patients' teeth gray and permanently harming their intestines. He also engaged in "copious" bloodletting, even to the extent of unknowingly draining patients of four-fifths of their blood. Students will want to understand what forces in Rush's personality, in the state of medical knowledge, or in the fearsome situation in Philadelphia led him into this dangerous two-pronged treatment. It is helpful here to have students draw a timeline showing the progress of the epidemic and changes in the severity of Rush's treatments.

By way of contrast, the best treatment, since no one knew of a cure, was one employed by two doctors who had come to the city from the West Indies where yellow fever was rampant. Dr. Jean Devèze and Dr. Edward Stevens fed patients wine and quinine bark and advised bed rest and utter cleanliness. Stevens successfully treated Alexander Hamilton and his wife by these means, though Thomas Jefferson churlishly questioned whether Hamilton had even contracted the disease.⁷ Students might want to reflect on the inter-penetration of political differences and personal dislikes in the 1790s to see how they shaped Jefferson's view of this situation.

Hamilton and Jefferson certainly sparred over a question posed to them by President Washington. Would it be constitutional to call Congress to meet somewhere other than pestilential Philadelphia? Predictably, Jefferson, backed by James Madison, argued from a strict constructionist position that the president did not have the power to change the place where Congress met. Equally predictably, Hamilton argued that if the Constitution did not specifically allow the president to call Congress to meet in another city, the chief executive could recommend that Congress assemble away from the stricken city.⁸ Instructors might want to use this incident as a further example of the contest over interpreting the Constitution in the early national period.

Martin S. Pernick and Jacquelyn C. Miller have argued that Rush's treatment of yellow fever was linked to his understanding of the new nation's politics. Pernick connects Rush's medical ideas directly to the emergence of two political factions, Republican and Federalist, in the political turbulence of the 1790s. He shows that Federalists believed that the disease raging in Philadelphia was imported from the West Indies, while Republicans, including Rush, believed it arose from the filthy condition of Philadelphia. Students will want to know the basis on which people made this

⁷Thomas Jefferson to James Madison, September 8, 1793, *The Papers of Thomas Jefferson* (Princeton, NJ: Princeton University Press, 1997), 27: 62.

⁸Thomas Jefferson to George Washington, October 17, 1793, *Papers*, 27: 254-55; Alexander Hamilton to George Washington, October 24, 1793, *The Papers of Alexander Hamilton* (New York: 1969), 15: 373-75.

connection. They should also be alerted to the extent and far-reaching nature of party differences, at least in the minds of some politicians in the early national period.

To his original article, reprinted with revisions in *A Melancholy Scene of Desolation*, Pernick adds an afterword in which he evaluates his own paper. He points out, for example, what he could have said, but did not. Students will learn from Pernick's conclusions how incomplete and tenuous historical writing is.⁹

Jacquelyn C. Miller, too, believes that Rush's treatment was tied to politics, but in a more diffuse sense than Pernick's notion of it as a direct response to the existence of factional politics. Rush, she shows, was convinced that bodily health and political health were interconnected: passionate political involvement could disrupt the body, while bodily disease could lead to the weakening of the patient's will and to dangerous political excesses. In these ideas, she suggests, lay the origins of his harsh therapy.¹⁰

Apart from the medical mayhem he caused in Philadelphia, Rush held the erroneous idea that African Americans were immune to the disease. Accordingly, he and others urged them to act as nurses and gravediggers. Free black ministers, Absalom Jones and Richard Allen, mobilized their community to help with the dangerous and gruesome tasks required to deal with the epidemic. We can assess the depth of the black community's altruism only when we know the difficulties free black people faced as they tried to live in Philadelphia.

Former slaves encountered a harsh world. In 1787 they had banded together to form the Free African Society to build a community for themselves and to protect and educate free black Americans in the city.¹¹ Members of the Pennsylvania Society for the Abolition of Slavery argued that former slaves who had been debilitated by their experience could recover and become citizens of the American Republic. Others did not accept the social environmentalist theory behind this argument, but despised former slaves for their poverty and misery. Scorned by many in the city, free blacks were driven from their customary seats in St. George's Methodist Church in 1792 and offered room in a segregated section. They withdrew and set about raising money to build an independent African Church, for which they broke ground early the next year.

After the black community had come to the aid of yellow fever victims in 1793, a newspaper editor, Mathew Carey, wrote a pamphlet about the epidemic in which he praised black workers, but also criticized the extortion practiced by some black nurses

⁹Martin S. Pernick, "Politics, Parties and Pestilence: Epidemic Yellow Fever in Philadelphia and the Rise of the First Party System," *William and Mary Quarterly* 29 (1972): 559-86; reprinted in Estes and Smith, eds., *A Melancholy Scene*, 119-46, with an afterword.

¹⁰Jacquelyn C. Miller, "Passions and Politics: The Multiple Meanings of Benjamin Rush's Treatment for Yellow Fever," in Estes and Smith, eds., *A Melancholy Scene*, 79-95.

¹¹Gary B. Nash, *Forging Freedom: The Formation of Philadelphia's Black Community, 1720-1840* (Cambridge: Harvard University Press, 1988), 113, 199.

who had raised their fees for nursing the sick in the face of desperate efforts to hire them. Carey's pamphlet inspired Jones and Allen to write a rebuttal that Phillip Lapsansky calls "the first African-American polemic."¹² Students might consider whether the two black leaders over-responded to Carey's criticisms because they lived in a social situation so unfriendly to their aspirations. Alert students, reading the fourth edition of Carey's pamphlet, will note Carey's response to Jones and Allen's criticism.¹³ Some students might be ready to read Philip Gould's paper analyzing the two texts in terms of the contemporary conflict between capitalism and humanitarian sensibility.¹⁴

A more challenging topic, because printed evidence is sparse, is the work and responses of women during the epidemic. Students might want to take up the challenge thrown down by Mark Workman, who argues that treatments used by the doctors, in spite of their theoretical basis, were no better than those used by lay healers, who of course included women.¹⁵ As an example, he refers to Margaret Morris, a Quaker, who stayed in Philadelphia to care for her extended family during the epidemic. The daughter of a doctor, Morris was prepared on at least one occasion to apply bloodletting to a patient, though generally for yellow fever she used preventives such as spreading vinegar and burning tobacco and tar, which the College of Physicians had endorsed. She seems also to have used bark (quinine) and wine, a treatment that other doctors recommended.¹⁶ Students might learn more about the responsibilities of female healers by comparing Morris's limited work and the large and safe midwifery practice of Martha Ballard of Maine.¹⁷ In Philadelphia, the doctors had their theories, but they shared treatment regimens with women such as Morris. It is difficult to know who was influencing whom, though Morris's treatments were likely similar to those used by other

¹²"Abigail, a Negress': The Role and the Legacy of African Americans in the Yellow Fever Epidemic," in Estes and Smith, eds., *A Melancholy Scene*, 61-78; Absalom Jones and Richard Allen, *A Narrative of the Proceedings of the Black People, Afro-American History Series, Collection 1: Black Thought in Early America* (Wilmington: Scholarly Resources, n.d.).

¹³Mathew Carey, *A Short Account of the Malignant Fever, Lately Prevalent in Philadelphia*, 4th ed. (New York: Arno Press and *The New York Times*, 1970).

¹⁴Philip Gould, "Race, Commerce and the Literature of Yellow Fever in Early National Philadelphia," *Early American Literature* 35 (2000): 157-86.

¹⁵Mark Workman, "Medical Practice in Philadelphia at the Time of the Yellow Fever Epidemic, 1793," *Pennsylvania Folk Life* 27 (1978): 33-39.

¹⁶Workman, "Medical Practice in Philadelphia," 36.

¹⁷Laurel Thatcher Ulrich, *A Midwife's Tale: The Life of Martha Ballard based on her Diary, 1785-1812* (New York: Vintage Books, 1991).

women caregivers. If Workman is correct, students will want to discuss the fragile claims doctors had to professional knowledge in the 1700s and the overlap between their knowledge and the medicine that women and others practiced at home. In medicine at least, professional men and women healers shared a sphere in the late eighteenth century.

Students will be interested also in the burden that middle class people, including women, bore during the epidemic. Physiological and medical science at the time held that health could be maintained by emotional self-control. Therefore, men and women were urged to moderate their grief over the fate of loved ones in order to preserve their own health.¹⁸ Students should be asked if such restrained behavior was possible, and they might consider the extent to which there is a history of emotion. They might be challenged to compare the situation in Philadelphia with the behavior of victims in twentieth-century wars or in more current catastrophes.

Historians are actively at work producing a compelling and varied literature about the epidemic. Good primary source materials on the epidemic are also available in print, microform, and on websites. Dr. Rush's letters to his wife, Julia Stockton Rush, who stayed outside the city with the couple's younger children, give a day-by-day account of his work in the city. Julia's letters are not printed, but students interested in tracing out the elements of their relationship in the context of fear and distance will find the doctor's letters stimulating.¹⁹ *The Federal Gazette*, published throughout the epidemic, is available in the microform series *Early American Newspapers, 1704-1820*. Websites also give access to primary sources: "Destroying Angel: Benjamin Rush, Yellow Fever and the Birth of Modern Medicine," maintained by an independent scholar, Bob Arnebeck, contains transcribed documents, particularly about the treatment regimens of several doctors, and an outline of the author's proposed book about Rush.²⁰ The Department of American Studies at the University of Virginia offers primary sources with commentaries in the section of its website called "The Diseased City" and "Writing the Fever."²¹

I have assigned the yellow fever topic three times to students taking a course on the skills and methods of historical research. Students were able to write good papers because the topics were so specific. I have received papers on a variety of subjects: the

¹⁸Jacquelyn C. Miller, "An 'Uncommon Tranquility of Mind': Emotional Self Control and the Construction of a Middle-Class Identity in Eighteenth-Century Philadelphia," *Journal of Social History* 30 (Fall 1996): 29-148.

¹⁹L.M. Butterfield, ed., *Letters of Benjamin Rush*, 2 vols. (Princeton, NJ: Princeton University Press, 1951).

²⁰See <<http://members.aol.com/Fever1793>>

²¹See <<http://xroads.virginia.edu/~MA96/forrest/WW/fever.html>>

history of medical theories; Benjamin Rush's desperate attempts to quell the epidemic; the constitutional issue of strict or loose construction of the Constitution; women as healers; and the behavior of groups such as the committee of volunteers and the Free African Society. As to the individuals involved in Philadelphia, who can complain when students' research shows that a signer of the Declaration of Independence and members of the cabinet could be as ignorant as anyone else when it came to treating disease?

In comments on doing research projects on yellow fever, undergraduates have told me that they finally realized the importance of understanding historical contexts when they read and wrote about the past. Others welcomed the opportunity of learning how to use primary sources. Many were surprised at the variety of topics for research that the yellow fever epidemic offered them.

The topic of yellow fever in Philadelphia is also useful for investigation in American History surveys and upper-level courses looking at the history of the new nation. The story of the epidemic can teach students a great deal about the social and cultural world of America in the late eighteenth century. A great city was in crisis and its people largely responded with fear and frenzy because they could neither understand nor cure what threatened them. Doctors, former slaves, and other volunteers battled the epidemic together because governments ceased to function. Racism was briefly challenged by the service offered by the Free African Society. The yellow fever epidemic in 1793 is a local history matter certainly, but studying and researching it will teach students much about American life at the end of the eighteenth century.