

Brazil's Era of Epidemics in a Hemispheric Context

A series of unfamiliar and devastating epidemics struck Brazil in the second half of the nineteenth century. While these epidemics had a profound impact on Brazil's political, economic and social development, they must be viewed within a hemispheric context. This is because epidemiological environments are always dynamic and flow beyond national borders. Changes in disease distribution was evident in the nineteenth century when the boundaries of deadly and frightening scourges such as yellow fever, cholera, malaria, bubonic plague, and smallpox changed radically. The topographies of these diseases sometimes altered because of intentional human action (i.e., smallpox vaccination campaigns), but they more often changed because of unintentional actions (agricultural drainage and nutritional improvements decreased malaria incidence) or habitat changes (the distribution of *aedes aegypti* mosquitoes, the vector of yellow fever, altered). This project intends to place Brazil's "era of epidemics" (1849 – 1910) within a broader context of 1) divergent hemispheric development and 2) pathways for disease movement. The nineteenth century was, after all, a time of clipper ships, packet boats and steam engines, and the Atlantic and Pacific Oceans composed the wider region's primary passageway for the increasing flow of goods, people, and microbes during the second half of the nineteenth century.

Scholars have only indirectly written about the epidemics that struck Brazil after 1850, although their effects are widely recognized. Before the mid-century, Brazil had earned a reputation of being a "salubrious" country, based on the observation that influenza and cholera pandemics, killing hundreds of thousands from Bengal to Hamburg to Havana, had not dipped below the South American equator. Brazil's reputation soured soon after, beginning first with a yellow fever epidemic that struck in 1849. Following this outbreak, waves of smallpox, cholera, and bubonic plague battered Brazil. For historians, these diseases signal a general decline in Brazilian health that lasted until the early 1900s. Historians have also claimed the scourges to be one of multiple causes for the Brazilian monarchy's collapse in 1889, and a factor behind the volatility of the young Republican governments. Unquestionably, disease at this time had a significant impact on Brazilian society, politics and the economy, and has provided fertile ground for large historical claims. Despite this, a history of the "era of

epidemics” remains to be written. Additionally, such a history requires a hemispheric perspective to examine the consequences of shifting diseases environments on national fortunes and power.

Brazil is both a focus of this project and a lens to explore the wider region. For example, in initial research I have discovered that two serious epidemiological diseases of the period, malaria and yellow fever, largely declined as risks within the United States at the same time that these two diseases either persisted or increased as a problem in Latin America, including Brazil. This may partly connects to how and why the United States grew relatively much wealthier and powerful than Latin America. We must keep in mind that during the colonial period, the areas that became the United States were much poorer and peripheral compared to the areas that became Latin America. Economic divergence became more marked in the nineteenth century, leading some economic historians to point to “factor endowments,” institutions, and geography. Rarely is the environment included, but the events that pushed US territory westward and into the Pacific, including a war with Mexico, discovery of gold, and the transcontinental railroads, were mostly financed by the prosperity of an increasingly industrialized U.S. Northeast, especially the rapidly growing American Atlantic ports. Cities such as New York, Boston, and Philadelphia benefitted enormously from an improvement of health conditions after 1850, assisting greatly in their expansion. In fact, these three cities grew in population from one to five million residents between 1850 and 1900. In the decades that preceded this growth, outbreaks of malaria and yellow fever were so severe to bring commerce to a halt and empty these cities of their (mobile) residents. Nearly the same decade that malaria and yellow fever became a far smaller threats in the US Northeast, they appeared and worsened or persisted as a problem in Brazil. Another great scourge of the day, smallpox, declined in both the United States and Brazil during the nineteenth century, but rates dropped much faster in the United States. The frequency and virulence of urban smallpox outbreaks in Brazil actually worsened until 1900. While there are many important factors for why the United States increased its wealth and power relative to Brazil and its Latin American neighbors, disease and epidemiological environments have not been commonly suggested as a contributing factor.

Project History

I began the Era of Epidemics project in 2008-09 when I was awarded a year of full-time research funding as a Digital Fellow of the National Endowment for the Humanities

(NEH). This also allowed six months of travel and research in Brazil where I visited numerous archives in five provinces and three distinct regions. The goal of this trip and year of research were to determine feasibility and identify resources. I believe I met these goals, since I was able to locate and digitize thousands of pages of pertinent manuscript documents, such as hospital and cemetery records and government correspondence that detailed the appearance of epidemics after 1849. I composed a thorough final NEH report of my activities during my year, and created a teaching and research website on the project that I have maintained and regularly updated ever since.

When my NEH fellowship ended in 2009, I began my first tenure-track position at Soka University of America (SUA). As is common among junior faculty, much of my time during the first two years at SUA were taken up by planning and preparing new courses and adjusting to the job. I was still able to reserve time for research, although this was mostly spent revising my PhD dissertation into a publishable manuscript. Happily, my book *Hierarchies of Slavery in Santos, Brazil, 1822 to 1888* was published by Stanford University Press this January. With the many demands of my first book, the Era of Epidemics project was largely put on hold. Only last summer did I find time to return to it. My work last summer allowed me to submit an invited article on the history of endemic diseases in Brazil to *História, Ciências, Saúde-Manguinhos*, Brazil's premier journal of medical history. I have also had time to refine the broad outline of my project and to better envision what I need to do to finish this project.

Development and goals

In order to complete the research stage, I need to visit two libraries and finance 100 to 150 hours of data collection and entry. I do not have the funds, however, to finance these trips and research expenses, and for this reason the PBRC Faculty Research Summer Grant would be very helpful.

The two libraries that I need to visit are in the United States, not Brazil. In fact, I do not need to visit Brazil this summer, since I gathered much in my last trip and many valuable resources are closer to home. The first important library to visit is the National Library of Medicine (NLM) in Bethesda, Maryland. The NLM is the best medical library in the world and has an enormous collection of medical history texts. I have compiled a list of 67 rare books and manuscripts relating to the spread of yellow fever and other infectious diseases that

changed in hemispheric distribution during the nineteenth century. I am certain that more material exists in the library, but a visit is needed to determine this. During this trip, I can also learn more about grant opportunities offered by the library, including a NLM Grant for Scholarly Work (discussed below). The second library is the Ohio State University Library. This library holds the Donald B. Cooper Collection, the finest collection in the world dealing with disease, medicine, medical schools, and public health for Brazil in the 19th and early 20th centuries. It was given to the library by Donald Cooper, Professor Emeritus of History at Ohio State University, who upon retirement donated 20 “bank boxes” of notes, photocopies and books after working for more than twenty years on an unfinished manuscript on a topic much related to mine.

Finally, I need to finish digitizing about 500 pages of cemetery registers from two locations in Brazil (Rio Grande do Sul and Pernambuco). I have several research assistants who I have worked with over the last two years who are skilled in using these documents and who have the digital equipment needed to digitize and transfer files. When this data is processed, I will be to produce the most detailed timeline on the arrival and gradual decline of many of Brazil’s worst scourges. I would understand if the PBRC Faculty Summer Grant cannot be applied to this expense. In this case, I would only be requesting funds to visit the two libraries, totaling \$3,500.

In the following table, I have summarized these three goals and included estimates of time required and expenses.

Research goal	Location	Personal travel involved?	Time required	Estimated expense
Visit and digitize material at the National Library of Medicine	Bethesda, Maryland	yes	2 weeks	\$2,000
Visit and digitize material at the Ohio State Library	Columbus, Ohio	yes	1 week	\$1,500
Finance 100-150 hours of data collection and entry	Rio Grande do Sul and Pernambuco, Brazil	no	3 months	\$1,500

Beyond assisting in these goals, a PBRC Faculty Summer Grant would give me what I need to apply for a NLM Grant for Scholarly Work in Biomedicine and Health. This grant is awarded “for the preparation of book-length manuscripts and other scholarly works of value to U.S. health professionals, public health officials, biomedical researchers and historians of

the health sciences.” The application is due in February, 2013. With a summer of work on this project, I will be much more prepared to write persuasive “score reviewed criteria” including significance, innovation and approach.

I plan to complete research collection in the summer, analyze and outline in the fall and winter, and begin writing in the spring and summer of 2014. I hope to return for a short trip to Brazil with a SUA Learning Cluster in January, where I will remain for 10 days to renew contacts and find a few remaining books and articles in the National Library and Archive. If all goes well, I hope to complete a manuscript in 2015. I believe the book will be path-breaking, giving scholars their first look at the effects of epidemiological change in Brazil and giving us some additional clues for the relative ascendancy of American wealth and power. While this book is more about Brazil than the United States, I believe it will indirectly speak to why the twentieth century was “Americas Century,” including its heightened power in the Pacific Basin.