Stony Brook University

The Ills of Empire: Managing Health and Populations across the British Atlantic World, 1707-1834

A Dissertation Presented

by

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to

The Graduate School

in Partial Fulfillment of the

Requirements

for the Degree of

Doctor of Philosophy

in

History

Stony Brook University

May 2014

Stony Brook University

The Graduate School

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Abstract of the Dissertation

The Ills of Empire: Managing Health and Populations across the British Atlantic World, 1707-1834

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Stony Brook University

2014

This dissertation explores the development during the long eighteenth century of modern approaches to governing society through the management of the health and conduct of laboring populations: particularly slaves, sailors, soldiers, and the urban poor. Scholars generally study these groups separately. I argue, however, that their roles as providers of crucial, often coerced labor linked them in the eyes of social and political authorities. Further, members of these populations had in common poverty, heavy labor, and difficult living and working conditions, all of which made them seem especially and similarly vulnerable to health threats. Authorities—whether government officials, naval officers, or West Indian planters—thus tried to generalize techniques for overseeing the health and productivity of these "lower and servile orders of people." Focusing on Britain and Jamaica within the broader Atlantic and imperial contexts, my dissertation investigates this phenomenon by examining sources not usually considered together,

such as government correspondence, medical manuals, natural histories, and sugar plantation records. This approach reveals interconnected strategies for managing mass populations across distant sites. In addition, it shows how these strategies became crucial features of new approaches to governing society long before most scholarship has acknowledged. In doing so, it sheds new light on how the practices of governing across the British Atlantic during the long eighteenth century reflected local and global social anxieties and ideas for managing bodies over an extra-territorial expanse. Situating this study in a comparative Atlantic context, then, raises questions about the colony-metropole dyad that focus on the colonial production of the practices, not just the theories, of governing and their transformations in different contexts. Consequently, my work shows modern governance as a product of colonies and imperial center together, rather than as a product of the center that then flowed out to colonies. This dissertation thus contributes to our understanding of the complex transitions between early modern and modern governance, and their relation to the state, nation, and empire.

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List of Abbreviations

Add MS	Additional Manuscript
ADM	Admiralty
BL	British Library
CO	Colonial Office
HSP	Historical Society of Pennsylvania
HL	Huntington Library
JA	Jamaica Archives
LMA	London Metropolitan Archives
TNA	The National Archives of the United Kingdom
NMM	National Maritime Museum, Greenwich
NLJ	National Library of Jamaica
PC	Privy Council
PRO	Public Record Office
RAMC	Royal Army Medical Corps Muniments Collection
RS	Royal Society
WL	Wellcome Library
WO	War Office

Acknowledgments

Completing a project like this would be impossible without incurring debts to many people and institutions. It is my pleasure to acknowledge them. A research fellowship from the Huntington Library allowed me to work with the collections there during the summer of 2011. In 2011-2012, an International Dissertation Research Fellowship from the Social Science Research Council supported my research at archives in the United Kingdom and Jamaica. Throughout this work, I benefitted from the assistance of a number of librarians and archivists. I would like to thank in particular the members of the staff at the Huntington Library, the Jamaica Archives, The National Archives (UK),the National Library of Jamaica, the National Maritime Museum, the Royal Society, and the Wellcome Library.

I am especially grateful to Jude Boardman and Finn Hansen for giving me a home away from home while I worked at archives in London. Sarah and Creighton Barber-Guest kindly made room for me to stay with them for a month's work at the Huntington Library. Thanks are also due to James Robertson for helping me secure housing from the University of the West Indies at Mona, as well as for helping me orient myself for research in Spanish Town.

I have also run up many intellectual debts. My dissertation advisor, Kathleen Wilson, provided crucial advice for formulating and sharpening my topic, and offered insightful feedback throughout the process on numerous drafts of funding proposals and chapters. In addition, I owe thanks to Jennifer Anderson, Holly Brewer, and Ned Landsman for the time they took to read and critique my work as members of my dissertation committee. I benefited immeasurably from a dissertation fellowship in 2012-2013 at the McNeil Center for Early American Studies, at the University of Pennsylvania. Being a part of the vibrant scholarly community at the Center has been crucial to the development—and much of the writing—of my project, especially after a long period of largely solitary research. Daniel Richter not only helped (and helps) foster this community, he also provided incisive commentary on an early draft of Chapter 1. My fellow fellows at the Center helped make the year both enjoyable and intellectually rigorous. Chris Parsons and Samantha Seeley commented on an early chapter draft, to its great advantage. I would like to thank especially Sarah Schuetze and Steve Smith for their moral support and for our many long discussions of ideas and research. I can only hope that they benefitted as much as I did. Sarah also commented on drafts of several chapters, despite her own busy schedule. I owe further thanks to the members of the 250 Words group for helping motivate me to keep pushing forward, every day. My compatriots in the Stony Brook History Department, Chris Mauceri, Elizabeth O'Connell-Gennari, Elizabeth Horner, Liz Sloan, and Tim Nicholson, offered indispensable advice and support, as well as cogent feedback on my work.

My parents and other family members never asked me if I was ever going to finish the dissertation, for which I am grateful, given its at times apparently interminable nature. Finally, above all, I would like to thank my wife, Jen, for her constant support over years of extended travel for research and the long process of writing and revising. This dissertation would not exist without her.

Introduction

On December 29, 1750, physicians John Williams and Parker Bennett killed each other in a fight on the streets of Kingston, Jamaica. The murderous brawl culminated an escalating disagreement in print that revolved around an essay Williams published on yellow fever. The doctors disagreed on the nature of yellow fever, but there was far more to the dispute than this. It combined issues of honor and status, the management of health in non-European environments, and medical and epistemological authority and legitimacy. Bennett seized in particular on Williams's complaint that people in Jamaica put significant trust in medical "newcomers" who arrived in Jamaica from Europe with firm medical theories but little practical experience in tropical environments. Bennett portrayed this as not only rude but also as simultaneously denigrating modern European medical education and endorsing both ignorant empiricism and slavish adherence to ancient medical authorities. Bennett defended his own claim to medical authority and took a swipe at Williams as an under-educated hack, a point he elaborated with repeated quips about Williams's Latin.

Bennett also denied that he was a newcomer at all, and in doing so, he attempted to neutralize Williams's claims to medical authority through local experience. Writing on behalf of his fellow "newcomers," Bennett suggested "perhaps his [Williams's] argument will lose a little of its weight when we assure him that some of us have been in *Africa,* on board *Guineamen*, and in other islands of the *West-Indies*, as well as he, consequently are equally intitled [*sic*] to write upon, and cure the *yellow fever*."[1] This statement came in response to Williams's assertion of medical experience with yellow fever in North America and Africa, as well as in Jamaica.

[1] *Essays on the Bilious Fever: Containing the Different Opinions of Those Eminent Physicians John Williams and Parket Bennet, of Jamaica: Which Was the Cause of a Duel, and Terminated in the Death of Both*, (London [orig. Jamaica]: T. Waller, 1752), 61.

These competing claims to authority offer insight both to why Bennett and Williams's debate escalated so dramatically and to how medical authorities perceived the consequences of the differences between northern European and tropical environments. But the specific topic of Bennett and Williams's disagreement, yellow fever, was also crucial. Even aside from the concerns about knowledge and status, this was more than a random medical dispute that turned violent. Yellow fever was the most notorious of the diseases that gave the West Indies their reputation for extreme unhealthiness during the eighteenth and nineteenth centuries.[2] As contemporaries observed, however, although it spared neither rich nor poor people, it did not kill indiscriminately. Yellow fever appeared clearly to be a disease primarily of the white population in the West Indies. Williams noted "how fatal this fever hath been to Strangers," especially "*Europeans* and *North Americans*" in the prime of life.[3]

In a colony still described in the mid-eighteenth century as a "frontier," this was a major problem. Along with the rapidly growing numbers of African slaves, it helped stimulate thinking about labor and security in relation to populations. In Williams's initial essay, he connected his efforts to prevent or manage yellow fever to the colonial government's efforts to increase white settlement. He framed yellow fever as a major threat to the white population, and since "The Honourable Assembly hath wisely considered that the good, welfare and security of this Island depends greatly on the increase of its white Inhabitants," addressing this threat constituted a key

[2] Bennett may not have been in Jamaica for very long at the time of his death (providing the occasion for Williams's description of him as a newcomer), but he wasted little time registering in Kingston a codicil to his will, which remained in St. Kitts. Island Record Office, Wills Liber. Old Series, No. 28, Bennett, Parker, End. 24 Jan. 1750, ff. 35-36.

[3] John Williams, *Essay on the Bilious, or Yellow Fever of Jamaica* (Kingston: Printed by William Daniell, 1750), 51-52.

problem of governance.[4] Williams was far from alone in his thinking about yellow fever specifically and the problems of managing the health, productivity, and numbers of populations more generally. Williams and Bennett's medical disagreement centered on a topic of immense importance not just to doctors, but increasingly also to colonists, military commanders, and government officials, in the West Indies as well as in Britain.

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The above story obviously focuses on the West Indies, but this dissertation takes a broader view. It explores the development across the eighteenth-century British Atlantic World of modern approaches to governing society through the management of the health and conduct of laboring populations. Mercantilist ideas, Enlightenment principles, and the experiences and imperatives of colonialism, slavery, and warfare all foregrounded the health of populations as a major issue for British authorities. This was especially the case in overseas colonies, where distance and hybridity—environmental, demographic, and epidemiological—intensified worries about sustaining a recognizably British culture and society. Focusing on Britain and Jamaica between 1707 and 1834, this dissertation examines the efforts of doctors, government officials, colonists, military commanders, and philanthropists to improve the health and conduct of subaltern populations, particularly slaves, soldiers, sailors, and the British urban poor. This approach illuminates how largely extra-governmental efforts to manage subaltern groups informed each other across transatlantic circuits and became crucial features of new approaches to governing society. By doing this, this dissertation aims to contribute to our understanding of

[4] *Essay on the Bilious, or Yellow Fever of Jamaica* (Kingston: Printed by William Daniell, 1750), vi. For a recent work on disease as a central geopolitical and military issue in relation to white and black populations in the region, see J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914* (New York: Cambridge University Press, 2010).

the complex transitions between early modern and modern governance, and their relation to the state, nation, and empire.

Developments in the eighteenth-century British Atlantic world expanded earlier political and social authorities' concerns about population, complicating and intensifying them in interrelated domestic, imperial, and transatlantic contexts. In Britain, rapid growth of unhealthy urban areas at the expense of rural areas fed widespread perceptions that the population was declining. The apparent diminishment in numbers and physical weakening of the poor, who seemed incapable of managing their own health, became a major problem for authorities, especially given the labor needs of Britain's dramatically expanding involvement in overseas colonial and military projects. These projects relied on the coerced labor of diverse populations of military personnel and slaves across far-flung and sometimes hostile environments, making problems of maintaining health increasingly pressing. Widespread disease amongst British sailors and soldiers led to military disasters or Pyrrhic victories in the West Indies, rendering moot the advantages of a large population from which to recruit in Britain. In addition, colonies like Jamaica—by the mid-1700s, Britain's most important American colony—existed in the midst of a continual demographic crisis that threatened their security and prosperity, requiring constant reinforcements from Britain.[5] The crisis, however, also encompassed the enslaved black population, upon whose labor the colonies' prosperity and importance to Britain depended, but which only grew through the forced migration of the Atlantic slave trade. Maintaining the health of all these groups increasingly presented local and metropolitan authorities with significant problems that, although varying across specific groups and locations, closely related to and resembled one another. Moreover, the strategies employed to manage the health of laboring

[5] See Trevor Burnard, "A Failed Settler Society: Marriage and Demographic Failure in Early Jamaica," *Journal of Social History* Vol. 28, no. No. 1 (Autumn, 1994).

populations circulated among distant sites through correspondence networks, printed works, and the experiences of doctors who often worked across sites and populations. For British and colonial authorities, the health of these populations throughout the Atlantic presented problems with multifaceted but often overlapping and interconnected solutions.

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This dissertation draws on the work of Michel Foucault to argue for the importance of the eighteenth century in the origins of modern population management, a period most scholarship on the topic overlooks in favor of the nineteenth century. According to Foucault, eighteenth-century Europe saw the development of the idea that "health and sickness, as characteristics of a group, a population" constituted "problems requiring some form or other of collective control measures."[6] This and related arguments have stimulated historical thinking about European policies on health and medicine during this period and point to the ways in which state institutions alone were insufficient to the task of managing populations.[7] I argue that efforts to cultivate large, healthy, and productive populations proceeded through many avenues, not just

[6] Michel Foucault, "The Politics of Health in the Eighteenth Century," in *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*, ed. Colin Gordon (New York: Pantheon Books, 1980), 167-68. See also *Security, Territory, Population: Lectures at the Collége De France 1977-78* (Basingstoke: Palgrave, 2007). Recent scholarship, however, has increasingly recognized the earlier period. For example, see Christopher Lawrence, "Disciplining Disease: Scurvy, the Navy, and Imperial Expansion, 1750-1825," in *Visions of Empire: Voyages, Botany, and Representations of Nature*, ed. D.P. Miller and P.H. Reill (Cambridge: Cambridge University Press, 1996); Donna T. Andrew, *Philanthropy and Police: London Charity in the Eighteenth Century* (Princeton: Princeton University Press, 1989); Andrea Rusnock, "'The Merchant's Logick': Numerical Debates over Smallpox Inoculation in Eighteenth-Century England," in *The Road to Medical Statistics*, ed. Eileen Magnello and Anne Hardy (Amsterdam and New York: Rodopi, 2002); *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002); Patrick E. Carroll, "Medical Police and the History of Public Health," *Medical History* 46(2002); Patrick Carroll, *Science, Culture, and Modern State Formation* (Berkeley and Los Angeles: University of California Press, 2006); Ted McCormick, *William Petty and the Ambitions of Political Arithmetic* (Oxford: Oxford University Press, 2009).

[7] Foucault, *Security, Territory, Population*, esp. 108-09. For just a few examples of works engaging these arguments, see Roy Porter, *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Industrial Society* (Cambridge: Cambridge University Press, 1985); Guenter B. Risse, *Hospital Life in Enlightenment Scotland: Care and Teaching at the Royal Infirmary of Edinburgh* (Cambridge: Cambridge University Press, 1986); Mary E. Fissell, *Patients, Power, and the Poor in Eighteenth-Century Bristol* (Cambridge: Cambridge University Press, 1991); Sharla M. Fett, *Working Cures: Healing, Health, and Power on Southern Slave Plantations* (Chapel Hill: University of North Carolina Press, 2002).

the government. Focusing too narrowly on government ignores the crucial role of extra-governmental actors in shaping social and physical environments, the protocols of labor, and the behavior of individuals. Doctors and philanthropists administrated a rapidly growing number of charities and hospitals, which targeted both the bodies and the minds of the poor. These institutions provided medical care to poor people in settings designed to inculcate discipline, morality, and healthy lifestyles; in their disciplinary regimes, they resembled the hospitals plantation owners established for slaves. An array of publications, including medical and lifestyle guides and social and political commentaries, cast cleanliness, frugality, industriousness, and rationality as necessary for health, and thus happiness, social order, and national strength. The combination of strategies of compulsion and coercion with ones of persuasion and assistance by local and extra-governmental authorities across British and colonial contexts calls seriously into question the notion that "medical police" was absent from Britain.[8]

Unfortunately, Foucault situates the emergence of modern techniques and rationalities of rule in a narrowly European context, neglecting colonies. I argue that these are inseparable; to understand either, one must examine both together. This approach shows not only that the problem of population emerged long before the nineteenth century, but that it did so in locations and contexts that have until recently received little attention. Far from simply diffusing outward

[8] The longstanding orthodoxy was that given the relative lack of centralized government regulation and intervention in the health and lives of people in England, late eighteenth- and early nineteenth-century England had no authoritarian medical police along German lines--or even much of a discourse of medical police. Out of an extensive literature, see especially George Rosen, *A History of Public Health* (New York: MD Publications, 1958); *From Medical Police to Social Medicine: Essays on the History of Health Care* (New York: Science History Publications, 1974); Roy Porter, "Cleaning up the Great Wen: Public Health in Eighteenth-Century London," *Medical History* Supplement No. 11(1991). My approach in this dissertation, especially apparent in Chapter 3, but also implicit in Chapters 4 and 5, is influenced by a recent refutation of this consensus. See Patrick E. Carroll, "Medical Police and the History of Public Health," ibid.46(2002). See also more generally F.M. Dodsworth, "The Idea of Police in Eighteenth-Century England: Discipline, Reformation, Superintendence, C. 1780-1800," *Journal of the History of Ideas* 69, no. 4 (2008). For conceptions of charity as police during this period, see Andrew, *Philanthropy and Police*. For a recent work dealing with social reform and other governmental actions that contemporaries often considered as falling under the somewhat capacious heading of police, see Nicholas Rogers, *Mayhem: Post-War Crime and Violence in Britain, 1748-53* (New Haven and London: Yale University Press, 2012).

from Europe, authorities' preoccupation with managing populations developed concurrently in colonial and European settings during the eighteenth century. Sociologist Patrick Carroll convincingly argues that this preoccupation permeated the material practices of state formation in colonial Ireland, and in turn influenced practices in Britain. Likewise, historian Ted McCormick locates the emergence of early modern political arithmetic as aspiring to governance by population manipulation in seventeenth-century Ireland.[9] I build on these points, giving due weight to the importance of both material practices and public discourse in defining populations and spaces and in altering health, behavior, and environments. Carroll's conceptualization of Ireland as a laboratory for experiments in statecraft, however, obscures local imperatives by portraying Ireland as a convenient place for applying ideas developed in England. I show that colonial experiences generated their own local problems requiring solutions within a broader imperial context.

In doing this, the dissertation builds on a growing body of scholarship concerned with the interrelations of metropole and colony, but it extends this work in new directions. Work in imperial history and colonial studies has increasingly emphasized the multi-directional flows of people, information, ideas, and practices within and across empires that undermine oppositions between center and periphery.[10] Other work on health and governance has illuminated the

[9] Carroll, *Science, Culture, and Modern State Formation*; McCormick, *William Petty and the Ambitions of Political Arithmetic* .

[10] For example, see Allison Games, *The Web of Empire: English Cosmopolitans in an Age of Expansion, 1560-1660* (Oxford: Oxford University Press, 2008); Felicity Nussbaum, *Torrid Zones: Maternity, Sexuality, and Empire in Eighteenth-Century English Narratives* (Baltimore: The Johns Hopkins University Press, 1995); Ned Landsman, *From Colonials to Provincials: American Thought and Culture, 1680-1760* (New York: Twayne Publishers, 1997); Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World.* (Cambridge and London: Harvard University Press, 2004); Kathleen Wilson, ed. *A New Imperial History: Culture, Identity and Modernity in Britain and Empire, 1660-1840* (Cambridge: Cambrdige University Press, 2004); Catherine Hall, *Civilising Subjects: Metropole and Colony in the English Imagination, 1830-1867* (Chicago: University of Chicago Press, 2002).

importance of colonial bodies and their management to techniques of rule. Scholars of British India have argued that colonizers' understandings of their own bodies and well-being shaped the aims of colonial governance.[11] Yet, although some writers have explored these connections between Britain and India, current work on population in Britain during the eighteenth century hardly explores the colonial connections.[12] My work brings together metropolitan and colonial perspectives to show their symbiotic relations. This is not to argue that the two are the same, but to emphasize that the cultural circuits established by eighteenth century empires allowed theories, practices, and perceptions to travel, bringing divergent experiences to bear on problems in a single location. In addition, by emphasizing the anxieties about national character that arose in colonies and metropole in relation to issues of health and population, I engage with scholarly arguments about the impact of race, origin, and culture on notions of national belonging.[13] My dissertation shows that the convergence of ideas and practices of health, environmental management, and national character informed the strategies of authorities who tried to cultivate

[11] E.M. Collingham, *Imperial Bodies: The Physical Experience of the Raj, C.1800-1947* (Cambridge: Polity Press, 2001); Mark Harrison, *Climates & Constitutions: Health, Race, Environment and British Imperialism in India, 1600-1850* (New Delhi: Oxford University Press, 1999).

[12] For an exception that touches on some of the colonial dimensions of populationist thinking in Britain during the eighteenth century, see Lisa Forman Cody, *Birthing the Nation: Sex, Science, and the Conception of Eighteenth-Century Britons* (New York: Oxford University Press, 2005). On governance and management of populations in eighteenth-century British overseas colonies, see Kathleen Wilson, "Rethinking the Colonial State: Family, Gender, and Governmentality in Eighteenth-Century British Frontiers," *The American Historical Review* 116, no. 5 (December 2011). For an examination of the construction of race and ideas about managing populations in eighteenth-century French colonies, see William Max Nelson, "Making Men: Enlightenment Ideas of Racial Engineering," ibid.115(December 2010).

[13] See Karen Ordahl Kupperman, "Fear of Hot Climates in the Anglo-American Colonial Experience," *The William and Mary Quarterly* Third Series, Vol. 41, no. No. 2 (1984); Alan Bewell, *Romanticism and Colonial Disease* (Baltimore and London: The Johns Hopkins University Press, 1999); Paul Langford, *Englishness Identified: Manners and Character, 1650-1850* (Oxford: Oxford University Press, 2000); Joyce Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500-1676* (Cambridge: Harvard University Press, 2003); Roxann Wheeler, *The Complexion of Race: Categories of Difference in Eighteenth-Century British Culture* (Philadelphia: University of Pennsylvania Press, 2003); Kathleen Wilson, *The Island Race: Englishness, Empire and Gender in the Eighteenth Century* (London and New York: Routledge, 2003); Peter Mandler, *The English National Character: The History of an Idea from Edmund Burke to Tony Blair* (New Haven: Yale University Press, 2006); Candace Ward, *Desire and Disorder: Fevers, Fictions, and Feeling in English Georgian Culture* (Lewisburg: Bucknell University Press, 2007), esp. Chapters 4-5.

colonial and national populations with particular characteristics.

Finally, in focusing on sailors and soldiers in the British armed forces, slaves in the West Indies, and the British urban poor, I draw on recent work treating these populations together in transoceanic frames. Among its contributions, this literature highlights commonalities in the situations and roles of diverse subaltern groups as well as in authorities' perceptions of these groups across the eighteenth-century Atlantic. It also emphasizes the reliance of early modern European imperialism, trade, and warfare on the labor of groups of people in varying degrees of unfreedom.[14] When I use the term subaltern to describe these groups, I refer to these characteristics, though I make no claim for the existence of a collective consciousness across these groups. British and colonial authorities attempted to dominate them, subordinate them to imperial and national projects, and prevent them from developing any sort of conciousness of affinity with one another, while simultaneously conceiving of them in strikingly similar terms as the irrational, self-destructive, "lower sort."[15] I engage also with other recent work on colonial, military, and maritime medicine, some of which has traced the circulation of medical ideas and practices among distant sites and highlighted the influences they exerted on metropolitan

[14] For example, see Roger Norman Buckley, *Slaves in Red Coats: The British West India Regiments, 1795-1815* (New Haven: Yale University Press, 1979); *The British Army in the West Indies: Society and the Military in the Revolutionary Age* (Gainesville: University Press of Florida, 1998); Peter Linebaugh and Marcus Rediker, *The Many-Headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic* (Boston: Beacon Press, 2000); Jill Lepore, *New York Burning: Liberty, Slavery, and Conspiracy in Eighteenth-Century Manhattan* (New York: Vintage Books, 2005); Emma Christopher, *Slave Ship Sailors and Their Captive Cargoes, 1730-1807* (Cambridge: Cambridge University Press, 2006); Emma Christopher, Cassandra Pybus, and Marcus Rediker, eds., *Many Middle Passages: Forced Migration and the Making of the Modern World* (Berkeley and Los Angeles: University of California Press, 2007); Emma Christopher, *A Merciless Place: The Fate of Britain's Convicts after the American Revolution* (New York: Oxford University Press, 2011); Marcus Rediker, *The Slave Ship: A Human History* (New York: Viking, 2007).

[15] As Gyanendra Pandey observes: "Difference becomes a mark of the subordinated or subalternized, measured as it is against the purported mainstream, the "standard" or the "normal"...The proclamation of difference becomes a way of legitimating and reinforcing existing relations of power." Gyanendra Pandey, "Introduction: The Difference of Subalternity," in *Subalternity and Difference: Investigations from the North and the South*, ed. Gyanendra Pandey (New York: Routledge, 2011), 3.

medicine.[16] These bodies of scholarship also, along with studies of health and mortality in the slave trade, convict transportation, and the armed forces, suggest connections between authorities' approaches to managing the health of subaltern populations throughout the Atlantic and beyond.[17] Nonetheless, these connections remain underdeveloped, especially beyond the histories of medicine and of the effectiveness of eighteenth- and especially nineteenth-century public health practices.[18]

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The first two chapters of the dissertation focus on the emergence of problems of managing populations as crucial issues for British and British colonial authorities during the eighteenth century. I pay particular attention to how medical writing and its dissemination in print culture helped configure health as a social and political problem in specific sites and on specific populations. In doing this, I read medical texts as elements of social and political discourse, rather than treating them as productions of a separate, objective scientific realm.

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[16] For example, see Mark Harrison, *Medicine in an Age of Commerce and Empire: Britain and Its Tropical Colonies, 1660-1830* (New York: Oxford University Press, 2010).

[17] Peter Mathias, "Swords and Ploughshares: The Armed Forces, Medicine and Public Health in the Late Eighteenth Century," in *The Transformation of England: Essays in the Economic and Social History of England in the Eighteenth Century*, ed. Peter Mathias (New York: Columbia Unviersity Press, 1980); Robin Haines and Ralph Shlomowitz, "Explaining the Mortality Decline in the Eighteenth-Century British Slave Trade," *The Economic History Review* 53, no. 2 (2000); Herbert S. Klein et al., "Transoceanic Mortality: The Slave Trade in Comparative Perspective," *The William and Mary Quarterly* Third Series, Vol. 58, no. 1 (2001); Hamish Maxwell-Stewart and Ralph Shlomowitz, "Mortality and Migration: A Survey," in *Health and Medicine at Sea, 1700-1900*, ed. David Boyd Haycock and Sally Archer (Woodbridge: The Boydell Press, 2009).

[18] Over roughly the past fifty years, a contentious debate has occurred over whether the primary explanation for increasing life expectancies since the eighteenth century centers on medical and public health interventions or improvements in nutrition and living standards more generally. This is plainly an important debate that has produced insights into, among other things, early modern British social history through works such as E.A. Wrigley and R.S. Schofield's *The Population History of England 1541-1871: A Reconstruction* (Cambridge: Cambridge University Press, 1981). Yet, in directing attention to retrospective evaluations of success, the debate sometimes obscures the full range of actions and objectives contemporaries took in attempting to manage populations and environments. For important works I draw on that argue for the efficacy of eighteenth- and early nineteenth-century public health measures, see James C. Riley, *The Eighteenth-Century Campaign to Avoid Disease* (New York: St. Martin's Press, 1987); Peter Razzell, *The Conquest of Smallpox: The Impact of Inoculation on Smallpox Mortality in Eighteenth Century Britain* (Firle, Sussex: Caliban books, 1977).

Medicine existed in a matrix of economic and social relations, and medical writers placed their texts in the context of social and political debates, attempting to influence behavior and management strategies, and to define populations as targets for those strategies. In fact, as I note in Chapter 4, achieving recognition as objective medical experts became a goal in its own right for doctors as well as a means for advancing an agenda for governing.[19] I use medical sources in conjunction with a variety of others not usually used together, especially printed social commentaries, natural histories, colonial government and military correspondence, and sugar plantation manuals and records. Doing this provides insight into not just public discourse, but also into how that discourse lined up with privately expressed views, as well as the practices that an array of governmental and extra-governmental authorities implemented to manage laboring populations in sites across the Atlantic.

Chapter 1, "Empire, Urbanization, and Problems of Population in the British Atlantic World during the Long Eighteenth Century," examines widespread conceptions of environmental determinism. The chapter argues that the conjuncture of rapidly accelerating overseas colonial projects and urbanization in Britain made the management of populations an increasingly critical social and political problem across colonies and metropole. Prevailing views that environmental factors played a crucial role in determining health and national character provoked questions about the physiological and cultural changes wrought by emigration and urbanization. Contemporaries worried that in moving to alien environments, the otherwise beneficial physical effects on British people of Britain's climate would become serious health threats. In the long-term, they worried that British people would lose the cultural and physical attributes that made

[19] On the construction of medical authority through public presentation, especially in print, of knowledge derived from expert, dispassionate clinical experience and observation, see Susan C. Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth-Century London* (New York: Cambridge University Press, 1996).

them British and develop new and inferior ones to pass on to their children. This meant that high rates of disease and death in places like Jamaica threatened simultaneously to weaken and kill British bodies and to degrade British character. To the alien environment, colonies like Jamaica added the threat of cultural and sexual mixing with non-white, non-British populations: populations whose members seemed far more capable of survival in tropical environments. In the context of relatively small British colonial populations and substantial enslaved populations, these threats preoccupied British observers and policymakers.

I next turn to urbanization in Britain during the eighteenth century. Although Britain's population remained overwhelmingly rural, a range of authorities and commentators in print worried about how to manage a rapidly growing urban population during this period. For many observers, this urban population, and especially the urban poor, seemed to have characteristics fundamentally different from and inferior to those of the rural population. If the concern in tropical environments centered on their apparent inhospitableness to constitutions formed by Britain's climate, here it was that urban microenvironments, vice, and sedentary employment threatened insidiously to alter British character at home, creating a population of weaklings. The final section of the chapter focuses on the role of doctors' participation in print culture and correspondence networks in shaping these transatlantic concerns about problems of population. In doing so, it elaborates the point that these concerns emerged across scattered and varied, but interlinked, contexts.

Chapter 2, "'Fatal Industry': Problems of Managing Laboring Populations in the Eighteenth-Century British Atlantic," develops these themes. It explores how doctors, commanders, social commentators, and colonial officials configured health as a social and political problem in relation to subaltern populations across interrelated metropolitan and

colonial sites. The chapter first argues that authorities considered sailors and soldiers, enslaved people, and the urban poor in the same frame of reference as members of the lower orders who performed vitally important, and often-coerced, labor. In addition, despite their differences and the efforts of authorities to prevent them from mixing, these groups overlapped in membership. The next, and longest, section of the chapter argues that managing the health and numbers of these populations increasingly seemed crucial to authorities throughout the British Atlantic for economic and military success and social order. Further, success or failure concerning one site or population affected others. The second half of the chapter argues that doctors and other authorities considered especial vulnerability to health threats as a characteristic of all these populations, due largely to circumstances and traits that they had in common as "the lower sort." Difficult labor, poverty, and unhealthy living and working conditions appeared to put the health of the lower sort under constant pressure. Yet, subaltern people's alleged inability properly to manage their own conduct supposedly added to this pressure, predisposing them to health problems and, consequently, threatening not only their own health and productivity, but also that of others.

The next three chapters examine how authorities turned theory into practice to manage health, bodies, and populations across the British Atlantic. Chapter 3, "Engineering Environments and Populations during the Eighteenth Century," evaluates attempts to secure populations in general, and to cultivate healthy, numerous laboring populations, in particular, by modifying physical and epidemiological environments. I construe "environments" broadly, arguing that authorities increasingly conceived of disease environments as encompassing the populations inhabiting spaces, as well as the spaces themselves. I argue that this approach involved the pathologizing of poor and laboring populations, a point that I first suggest in

Chapter 2. Focusing on institutional contexts, such as the armed forces, rather than broad environmental interventions such as street cleaning reveals that the bodies of the lower sort became crucial targets for intrusive strategies of environmental management, including surveillance and enforced cleanliness. Further, authorities generalized these strategies across spaces and populations that appeared to create similar disease environments. Despite the broader aspirations of some doctors and social commentators, however, only institutional contexts offered politically acceptable venues for such coercive strategies during the eighteenth century, though this is certainly not to say that these venues guaranteed that people would comply with authorities. Finally, the chapter considers hospitals as environmental interventions aimed at managing the health and character of laboring populations. Hospitals' institutional regimes existed to manage patients' health, as well as to inculcate habits of subordination and self-regulation. These were not limited to the institutional setting in which they were pitched, but indirectly aimed to influence behavior among the poor in general.

Chapter 4, "The Limits of Governance: Population, Labor, and the Politics of Inoculation and Vaccination during the Long Eighteenth Century," considers inoculation as a controversial political issue long before the nineteenth century's well-known anti-vaccination movement. The chapter's overarching contention is that inoculation and vaccination during the long eighteenth century became tools of projects for governing society through the management of populations. I link this development closely to aims of mobilizing and maximizing the labor value of mass populations throughout the Atlantic. Questions of the extent and relation of individual and collective rights became central aspects of public discourse concerning inoculation in Britain, even in the eighteenth century. Did anyone have the right to risk the lives of individuals to preserve the public, or vice versa? In the face of this controversy, the growing aspirations of pro-

inoculationists to achieve universal inoculation in Britain failed, though inoculation did become widespread. Not only could pro-inoculationists not command universal obedience, they could not enlist the national government to enforce inoculation. As this suggests, extra-governmental rather than governmental agents played the main roles in enacting strategies for using inoculation and vaccination to manage populations during the long eighteenth century. These strategies would shape later, more centralized government approaches. Crucially, I emphasize throughout the chapter that the eighteenth-century development of these strategies, including limited practices of compulsory inoculation, came from efforts focused on the bodies of relatively powerless people, especially the enslaved, sailors and soldiers, and children.

Chapter 5, "Body and Mind: Commodification, Routine, and Violence in Managing Laboring Populations," examines an apparently disparate array of practices, such as quantification, medical dissection, inculcating routines of activity, and marginalizing lay healers. The chapter argues that together, such practices constituted a regime of power—albeit a diffuse one mostly lacking central planning—in which coercive, persuasive, and disciplinary strategies for managing populations were intertwined. Doctors and other authorities attempted to commodify and claim the bodies of subaltern people through strategies that simultaneously assumed the commensurability of people's bodies and attempted to make them commensurate. Inculcating individuals with habits of self-regulation through disciplinary routines became a crucial element of these strategies. Efforts to cultivate healthy, productive populations in the eighteenth century focused on both the body and the mind. Authorities tried to convince members of these groups, for example, to follow their recommendations and utilize professional medical services. Their apparent failure to do so, however, justified for authorities the use of coercion, surveillance, and the continued imposition of structure on their lives. Efforts to

marginalize lay healers as harmful charlatans and demonstrate the effectiveness of professionalized medicine ranged from outreach to the poor in their homes to the execution and medicalized torture of rebellious Afro-Caribbean practitioners in West Indian colonies. Far from stopping in the nineteenth century, authorities continued to use such disparate, and sometimes contradictory, practices that both responded to and provoked resistance.

The dissertation concludes with a brief discussion of approaches to public health and population management after 1834, focusing on Edwin Chadwick's famous 1842 *Report on the Sanitary Condition of the Labouring Population of Great Britain.* Studies of the emergence of modern public health and urban governance have fixed on this period, which saw previously unprecedented urbanization and industrialization, cholera epidemics in Britain, and increasing government action to manage populations in Britain and its colonies. While acknowledging the significance of the changes during this period, I emphasize important continuities before and after the 1830s. I reiterate an argument that recurs throughout the dissertation, namely that many of the approaches to managing populations developed in sites across the eighteenth-century British Atlantic later shaped more centralized nineteenth-century government strategies for governing.

Chapter 1: Empire, Urbanization, and Problems of Population in the British Atlantic World during the Long Eighteenth Century

> Let us now therefore for a few moments suppose that the abolition of the Slave Trade had taken place twenty years ago; the consequence would be that all the present working slaves would either be dead or past labour, for as it is entirely contrary to the nature of population, to imagine that the waste of the people would be supplied by a new race—as the propagation of the inhabitants of large towns in England is by no means equal to keep up the usual number without having recourse to the country it will be evident that the more unfavourable climate of the West Indies can never produce a sufficiency for the renewal of the people.[1]

> Large towns are the graves of the human species; they would perish in a few generations, if not constantly recruited from the country. The confined, putrid air, which most of their inhabitants breathe, their want of natural exercise, but above all their dissipation, shorten their lives, and ruin their constitutions.[2]

This chapter examines tensions in eighteenth- and early nineteenth-century British conceptions of environment's influence on the formation of the physical and moral characteristics of populations. Conceptions of environmental determinism underpinned claims that Britain's temperate northern climate required from and imparted to its people characteristics such as industriousness and physical robustness. Yet, the apparent permanence, or only gradual change, of characteristics formed by particular environments raised problems of maintaining people's health when they moved to unfamiliar places. Perceptions that black people were better suited than white people—though, as the opening quotation suggests, certainly not safe—were for survival and labor in tropical regions informed clashes between colonists and government officials and affected military policy. Simultaneously, however, many observers worried that the beneficial influences of Britain's climate on its population might be counteracted by a

[1] *An Address to the Inhabitants in General of Great Britain, and Ireland; Relating to a Few of the Consequences Which Must Naturally Result from the Abolition of the Slave Trade*, (Liverpool: Printed by Mrs. Egerton Smith, 1788), 29-30.

[2] Thomas Garnett, *A Lecture on the Preservation of Health* (Liverpool: Printed by J. M'Creery, 1797), 42.

combination of social, demographic, and environmental changes at home, leaving British people ill-suited for success in any climate. Eighteenth-century British urbanization, too often overshadowed by that of the nineteenth, played a crucial part in provoking these worries. I argue that these colonial and metropolitan concerns, which scholars generally study separately, developed concurrently, together making population a major social and political problem for a range of authorities and writers in Britain and its colonies. This is not to say that the problems were identical or that commentators always directly linked them, although they sometimes did and they frequently conceived of them similarly, as in the above epigraph. A conjuncture of circumstances across greatly differing—and distant—colonial and metropolitan contexts constituted population as a focus of projects for governing during the long eighteenth century.

By examining this conjuncture, I aim to demonstrate the pervasiveness of problems of managing populations across the British Atlantic during this period. The chapter therefore describes some of the pathways through which ways of thinking about managing populations circulated through the eighteenth-century Atlantic World. Government officials and "private" individuals and institutions with varying affiliations to government expressed keen interests in problems of population. Moreover, people moved between putatively private and public milieus, and often participated in both simultaneously. I trace here the development of a transatlantic community of medical practitioners and writers concerned about managing the health and characteristics of populations. Doctors' correspondence, participation in print culture, and movements around the Atlantic helped link experiences, ideas, and problems across varying situations and places, forging a common set of approaches and ways of thinking about population.

Tropical Colonies and Migration

During the eighteenth century, Jamaica became Britain's most prized American colony, both economically and geopolitically. This importance derived from Jamaica's location and size, and the labor of the largest enslaved population in the British West Indies. These factors, however, also intensified in Jamaica conditions that fostered instability and insecurity throughout the British West Indies, namely demographic imbalance between the free and enslaved populations and proximity to French and Spanish colonies. These conditions helped make colonial population a major concern among merchants, planters, and others in London as well as in Jamaica. One source from 1716 emphasizes Jamaica's importance for the maintenance of British naval power and claims "The loss of *Jamaica* must probably be follow'd with the Ruin of our Interest in *America.*"[3] In a petition to the king in 1726, London merchants "& others trading to and interested in the Island of Jamaica" made a case for Jamaica being "of the greatest importance to your British Dominions," pointing to its direct economic value to Britain, as well as to it "being in a manner a Key to the Spanish West Indies." The petitioners wanted government measures to encourage trade and the growth of Jamaica's white population, the small size of which, they claimed, "render[ed] it [Jamaica] liable of being made a Prey to its Potent and Inveterate Enemyes [*sic*]."[4]

Government officials, doctors, and military commanders also identified population management as an economic, geopolitical, and social issue, and consequently as a key problem of governance, in relation to Jamaica throughout the eighteenth century. In 1707, Governor

[3] *Occasional Papers on the Assiento, and the Affairs of Jamaica*, (London, 1716), unpaginated, second page of collection's first document.

[4] BL Add MS 22676, "Copy of a Petition of the Merch:ts of London, & others trading to and interested in the Island of Jamaica to His Majesty. Delivered to his Grace the Duke of New Castle, May the 20th, 1726," f. 66r.

Thomas Handasyd wrote that Jamaica was "but very thin of people," noting that the colonial Assembly had eliminated a longstanding monetary inducement for immigration.[5] The people to whom Handasyd referred were white. The growing disparity in numbers between the relatively small white settler population and the enslaved black population had already long been a source of anxiety in Jamaica. This anxiety continued and intensified, resurrecting bounties for white settlers, among other measures. As a piece on yellow fever published in Jamaica in 1750 put it, "The Honourable Assembly hath wisely considered that the good, welfare and security of this Island depends greatly on the increase of its white Inhabitants, and to that End hath given…the greatest Encouragement ever was given to Strangers to become Settlers in this Island."[6] This encouragement came in addition to private schemes such as William Beckford's attempts to bring Scottish immigrants to Jamaica in the early 1740s, following the treaty ending the First Maroon War.[7]

All such efforts to manage the ratio of white to black inhabitants failed, as the Jamaican Assembly effectively admitted with its repeated upward revisions of legally allowable race ratios on plantations. The deficiency law passed by the Assembly in 1677 set the ratio at one white man for every five slaves up to ten, and one for every additional ten slaves. By the 1710s, a petition from the inhabitants of Kingston complained that the Assembly had "rais[ed] the proportion from ten to twenty and then to thirty."[8] The failure to cultivate a self-sustaining white settler

[5] TNA: PRO CO 137/7, No. 42, Governor Thomas Handasyd to the Council of Trade and Plantations, Mar. 8, 1707.

[6] Williams, *Essay on the Bilious, or Yellow Fever of Jamaica*, vi.

[7] BL Add MS 12431, William Beckford to James Knight, 11 Oct. 1740, 10 Feb. 1741, 19 Aug. 1741, 21 Nov. 1741, 18 June 1743, ff. 116-26 passim.

[8] BL Add MS 12426, Extracts of Minutes of the Council and Journals of the Assemblys [sic] of Jamaica, Letters, and other Papers, in the Office of Trade, & Plantations, in relation to the memorandums delivered in by Mr. Pitt, ff. 38v-39r.

population continued to trouble authorities on both sides of the Atlantic into the early nineteenth century. For example, the famous nineteenth-century political reformer William Cobbett suggested that, along with other measures, paying soldiers in the West Indies more and offering bounties to those who settled there would mean "we should no longer be at our wits' end to know what to do with the West Indies."[9]

As the preceding paragraphs have suggested, worries about Jamaica's security played a major role in making contemporaries place so much importance on managing the ratio between the white and black populations. In 1746, an anonymous writer, possibly Lieutenant Governor Edward Trelawny, published an essay arguing that the main threat to Jamaica came from "the too great Number of Negroes in Proportion to white Persons, being at least as ten to one." In fact, the writer continued, the ratio on many large plantations was closer to thirty to one, if not higher, and the security threat this situation created would only get worse, as the "Negroes go on increasing by Importations every Year; the *Whites* rather diminish yearly, certainly do not increase."[10] This assessment was largely born out; although the enslaved population continued drastically to increase, to approximately 167,000 in 1768 and 350,000 in 1812, the white population failed to increase commensurately, and numerous slave insurrections occurred.[11] Early in the century, a major aim of stationing troops in Jamaica was to provide security from slave and maroon insurrection by reducing the disparity between the white and black populations until more white

[9] BL Add MS 37853, Windham Papers Vol. XII, ff. 232v-233r, quote on f. 233r, enclosure to a letter from William Cobbett to William Windham, n.d, [at earliest the end of March 1804].

[10] *An Essay Concerning Slavery, and the Danger Jamaica Is Expos'd to from the Too Great Number of Slaves, and the Too Little Care That Is Taken to Manage Them. And a Proposal to Prevent the Further Importation of Negroes into That Island*, (London: Charles Corbett, 1746), 2nd-3rd page of introduction, 18.

[11] Kamau Brathwaite, *The Development of Creole Society in Jamaica, 1770-1820* (Kingston and Miami: Ian Randle Publishers, 2005, orig. pub. 1974), 152; Richard B. Sheridan, *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680-1834* (Cambridge: Cambridge University Press, 1985). 6-7 Brathwaite does not provide a figure for 1812, although he does for 1807 and 1820.

settlers could arrive.[12]

According to observers in both Jamaica and London, however, the small white population also increased Jamaica's vulnerability to invasion from nearby French and Spanish colonies. The threats of invasion and slave insurrection seemed interrelated. A 1715 Board of Trade report groups together internal and external security threats, and warns that due to the small white population, the militia is too small and dispersed to deal with all of them. The report supports this claim by noting that when Governor Hamilton reviewed the militia, he did so one regiment at a time, and had to send other troops to cover for those being reviewed, "so apprehensive were the Planters of their danger." The conclusion states that due to the small and decreasing white population, "there is too much reason, to apprehend the Island is in danger, of being lost unless it be some way assisted from hence [Britain]."[13] In 1749, Trelawny wrote a letter to the Board of Trade in which he reiterated his views about the growing security threat presented by the lack of a substantial white population. Like the merchants' petition of 1726 did, Trelawny described Jamaica as in danger of "be[ing] made a prey" by the French or Spanish. This danger arose, according to Trelawny, from the combination of internal insecurity and Jamaica's status as "a Frontier Province, surrounded on all sides with powerful Neighbours that do not wish us well."[14]

Communications from the Assembly to officials in London and governors in Jamaica also placed the population issue in the context of internal security and broader West Indian imperial efforts. For example, according to an act passed by the Jamaican Assembly and approved in late 1736, "the Number of White People residing in this Island is of the greatest Consequence to its

[12] BL Add MS 12426, ff. 22v-23r, 25r; BL Add MS 22676, ff. 17-8, Message from Assembly to Council abt. The Independent Companys, 10 Feb. 1715.

[13] BL Add MS 12426, ff. 22r-23r.

[14] TNA: PRO CO 137/48, Edward Trelawny to the Board of Trade, 8 June 1749, ff. 183v-184r, enclosed in Board of Trade to the Duke of Bedford, 27 Sept. 1749.

Security, as well against all foreign Enemies in case of War, as against the Rebellious Negroes."[15] In 1747, the Council of Jamaica similarly noted Jamaica's vulnerability to "any Attempts either from a Forreign [*sic*] or Intestine Enemy for want of more Troops, till times of Peace and better Expedients than hitherto have been thought of can be found out for introducing a greater Number of Inhabitants."[16] Given the precarious demographic situation, the Assembly and its agent in London argued on several occasions not only that the British government must send more troops to Jamaica, but also that it must not send troops or colonists away from Jamaica for military service. To do otherwise would cripple economic production and further endanger the colony.[17]

High mortality rates played a major role in creating the demographic imbalance.[18] Physician and military doctor Robert Jackson reiterated the late eighteenth-century European consensus in blaming the West Indian climate as having been "fatal to the European constitution."[19] According to one writer, during twenty-one years in the West Indies, he saw "the Islands twice buried in the loss of their white inhabitants" due to the "fatal" climate.[20] Historian

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[15] BL Add MS 22676, *An Act to prevent the Abuses committed by Entertaining, Concealing, or Carrying off, any of His Majesty's Soldiers, and White Men or Women Servants, or Slaves belonging to any of the Inhabitants of this Island without tickets, and for the better Regulating Servants, and deciding Differences between Masters and Servants,*f. 87r.

[16] TNA: PRO CO 137/48, Copy of a Minute of Council of Jamaica dated July 20 1747, ff. 153r-153v, enclosed in Board of Trade to Duke of Newcastle, Oct. 14, 1747.

[17] For example, see TNA: PRO CO 137/78, Stephen Fuller to Lord George Germain, 22 July 1780, ff. 50-51.

[18] See Burnard, "A Failed Settler Society: Marriage and Demographic Failure in Early Jamaica."

[19] Robert Jackson, *A Treatise on the Fevers of Jamaica, with Some Observations on the Intermitting Fever of America, and an Appendix, Containing Some Hints of the Means of Preserving the Health of Soldiers in Hot Climates* (Philadelphia: Robert Campbell, 1795), 255. He was, however, optimistic about the possibility of changing this situation through behavioral and dietary means.

[20] William Young, *Considerations Which May Tend to Promote the Settlement of Our New West-India Colonies, by Encouraging Individuals to Embark in the Undertaking* (London: James Robson, 1764), 14-15.

Trevor Burnard estimates that roughly half a million Europeans immigrated to the British West Indies before 1780, but that the white population in 1780 stood at only 50,000.[21] Jamaica provided no exception to the region's high mortality rates for European settlers. Although mortality rates amongst the enslaved black population were also appallingly high, the forced migration of the Atlantic slave trade brought over 500,000 Africans to Jamaica alone by 1780.[22]

Contemporaries often situated failure to manage colonial populations in transatlantic and imperial frames, connecting it to questions about the state of Britain's population. Writing in the 1760s about the southernmost of Britain's North American colonies, John Mitchell claimed "the nation loses more people on these unhealthful sea coasts, than many such barren deserts are worth."[23] Nearly two decades later, the famous English writer on population, Richard Price, compared the United States, Britain, and Britain's tropical colonies. He concluded that settling a given number of people in areas like the United States would result in the same exponential population growth that the former colonies experienced. In developed areas like Britain, little to no population growth would occur, "and in Situations like those of our colonies in the East and West Indies, they would soon come to nothing, if not kept up by constant recruits."[24] This was no more than an extrapolation forward of the longstanding situation in the British West Indies, but in doing so it naturalized the demographic catastrophe.

This situation stimulated thinking in terms of populations and confirmed "medical

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[21] Trevor Burnard, "European Migration to Jamaica, 1655-1780," *The William and Mary Quarterly* Third Series, Vol. 53, no. 4 (1996): 780.

[22] "European Migration to Jamaica, 1655-1780," *The William and Mary Quarterly* Third Series, Vol. 53, no. 4 (1996): 793.

[23] John Mitchell, *The Present State of Great Britain and North America, with Regard to Agriculture, Population, Trade, and Manufactures...* (London: T. Becket and P.A. de Hondt, 1767), 192.

[24] WL, MS. 7433/26, Richard Price to [unknown], 11 May 1786.

environmentalism" as an explanatory framework among British and colonial authorities.[25] According to dominant explanations in Britain and its colonies during the eighteenth century, human variation arose from the complex interplay of a multitude of external influences, from geography to means of subsistence to eating habits.[26] Among these influences, environment stood preeminent. This basic conception had a long history in Europe by the eighteenth century, although its details and implications varied over time and space. Eighteenth-century British and British colonial observers continued to draw on classical Greek and Roman authorities in explaining that differences in climate translated into greatly different characteristics of mind and body. One late-century medical writer cited Livy to support the view that climate trumped inheritance in determining human characteristics: "the particular nature of the seed is not so powerful in preserving the perfection of the produce, as the nature of the soil and climate, under which it was bred, are in changing it."[27]

This is not to say that the authority of ancient writers commanded universal respect during the late eighteenth century. Many doctors, scientists, and others criticized deference to classical authorities. For instance, prominent naval physician Thomas Trotter claimed that they had nothing to offer to naval medicine but superstition and fable.[28] Still, despite such skepticism

[25] For the argument that seventeenth- and eighteenth-century European experiences in hot colonial environments helped make "medical environmentalism" "dogma" in the eighteenth century, see Kupperman, "Fear of Hot Climates in the Anglo-American Colonial Experience," 239.

[26] Wheeler, *The Complexion of Race: Categories of Difference in Eighteenth-Century British Culture*, 21-22.

[27] William Falconer, *Remarks on the Influence of Climate, Situation, Nature of Country, Population, Nature of Food, and Way of Life, on the Disposition and Temper, Manners and Behaviour, Intellects, Laws and Customs, Form of Government, and Religion, of Mankind* (London, 1781), 9-10.

[28] Thomas Trotter, *Medicina Nautica: An Essay on the Diseases of Seamen: Comprehending the History of Health in His Majesty's Fleet, under the Command of Richard Earl Howe, Admiral*, vol. I (London: T. Cadell, Jun. and W. Davies, 1797), 10-11.

on certain topics, long-established ways of thinking about the molding of health and bodily constitution by climatological influences persisted. According to absentee Jamaican planter William Beckford, it was self-evident that the influence of climate formed different populations for labor in certain regions. In Jamaica's climate, a European "would be almost dissolved" by the effort of heavy labor, whereas Africans could work, because "the climate is congenial to their natural feelings."[29] Later in the same work, Beckford reiterated his argument about climatic determinism: "To suppose that Europeans could cultivate the land in the islands, or negroes that of England, would be to acknowledge that climate has not any effect upon bodily exertions, upon national distinctions, or upon endemial feelings."[30] "Nature," wrote one army doctor in the 1790s, "calculates the species for the regions they inhabit, or...we gradually acquire constitutions suited to the climate in which we may be placed."[31]

Continuing to follow classical models, eighteenth-century British observers constructed an imagined geography of the world and its peoples.[32] Temperature and latitude—used more or less interchangeably—served as the basic organizing criteria for this geography. The hot, "southern" climates of the "torrid zone" supposedly produced people with characteristics radically different from those of people from colder northern latitudes. The peoples of hot climates, in this conception, were by nature inactive, physically weak, "passionate," "vindictive,"

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[29] William Beckford, *A Descriptive Account of the Island of Jamaica...Also Observations and Reflections Upon What Would Probably Be the Consequences of an Abolition of the Slave-Trade, and the Emancipation of the Slaves*, 2 vols., vol. II (London: T. and J. Egerton, 1790), 65-66.

[30] *A Descriptive Account of the Island of Jamaica...Also Observations and Reflections Upon What Would Probably Be the Consequences of an Abolition of the Slave-Trade, and the Emancipation of the Slaves*, 2 vols., vol. II (London: T. and J. Egerton, 1790), 330.

[31] Hector McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo: With Practical Remarks on the Fever of That Island; and Directions, for the Conduct of Europeans on Their First Arrival in Warm Climates* (London, 1797), 38.

[32] See Bewell, *Romanticism and Colonial Disease*, esp. Ch. 1.

and at once slavish and authoritarian. In contrast, people from colder northern climates routinely appear in sources as active, self-controlled, and physically robust. In physician and abolitionist William Falconer's words, "the inhabitants of hot climates are found, by experience, to possess much less bodily strength, and ability to endure fatigue, than those of cold or of the more temperate."[33] Although statements such as this clearly render their subjects from outside Europe in a poor light, the authors often suggest that certain apparently undesirable characteristics, for example physical weakness, actually help suit their bearers to life in their climate.

Such broad arguments dividing the populations of cold and hot climates also provided a basis for differentiating British and non-British people. There was no simple division between hot and cold climates, but rather a graduated scale. Extremely cold climates in high northern latitudes supposedly created exceptionally robust, though dull people who, like those of hot southern climates, had a disposition to arbitrary government.[34] Commentator after commentator in Britain argued that Britain's location in the middle northern latitudes made for a temperate environment that required and imparted physical robustness, as well as industry and love of liberty in its people.[35] To support this point, writers frequently brought in additional climatic factors to go along with the ever-present consideration of latitude and temperature. During the autumn of 1787, the Irish naval surgeon and physician, Leonard Gillespie, wrote in his private journal:

In forming the national Character and in attempting to explain its traits from physical

[33] Falconer, *Remarks on the Influence of Climate, Situation...* 6-14, quote on 12. For other examples of this thinking, see J.B. Moreton, *West India Customs and Manners: Containing Strictures on the Soil, Cultivation, Produce, Trade, Officers, and Inhabitants; with the Method of Establishing and Conducting a Sugar Plantation. To Which Is Added, the Practice of Training New Slaves* (London: J. Parsons, W. Richardson, H. Gardner, and J. Walter, 1793), 78.

[34] Falconer, *Remarks on the Influence of Climate, Situation...* 123.

[35] Kupperman, "Fear of Hot Climates in the Anglo-American Colonial Experience," 215-16.

> Causes the Influence of the Air should not be neglected and has indeed attracted the attention of all Phylosophers [*sic*] who have treated of this matter. the sudden Changes in our Atmosphere its humidity and vapours conveyed to it by the westerly winds, so common to this Island the coudiness [*sic*] and darkness of our Sky, the obstruction of solar light, the lowness and humidity of our soil all tend considerably to affect the Inhabitants and to impress on them a certain peculiar Character. it was observed by Hippocrates two thousand years ago that the europeans [*sic*] were more resolute hardy and courageous than the asiatics [*sic*] from the variableness of their Climate and he Supposed once [*sic*] cause of the timidity and effeminacy of the Inhabitants of Asia resulted from the equability and steadiness of their Climate. this Observation would seem to apply to the People of Britain when compared to their continental Neighbours, the french [*sic*].[36]

This picture of Britain as a beneficially uninviting place commanded popularity, appearing in printed works from throughout the eighteenth century and later. Writing in 1831, the famous former naval physician, Sir Gilbert Blane, proclaimed that the moderately unpleasant climate and only middling fruitfulness of Britain's soil created a hardy people, supremely adaptable to exertion in extreme environments, as Britain's military successes against France showed.[37] However, although many eighteenth- and early nineteenth-century observers expressed optimism about the possibilities of acclimating to other environments, few went as far as Blane did, especially by the 1830s.[38]

In fact, writers often worried that the effects of Britain's climate could actually become liabilities in overseas environments. Despite optimism about acclimation, it followed from conceptions of climate's dominant and persistent influence on constitution that moving from

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[36] TNA: PRO ADM 101/102/3, 3 Sept. 1787.

[37] Sir Gilbert Blane, *Reflections on the Present Crisis on Publick Affairs, with an Enquiry into the Causes and Remedies of the Existing Clamours, and Alleged Grievances, of the Country, as Connected with Populations, Subsistence, Wages of Labourers, Education, &C....* (London: W. Nicol, 1831), 35-38.

[38] For the argument that optimism about the potential for acclimating increasingly turned to pessimism in the early nineteenth century, see Mark Harrison, ""The Tender Frame of Man": Disease, Climate, and Racial Difference in India and the West Indies, 1760-1860," *Bulletin of the History of Medicine* 70(1996); *Climates & Constitutions: Health, Race, Environment and British Imperialism in India, 1600-1850.*

one's native climate to another threatened health and character. Even people moving between locales within a given region and climate needed to take care, according to contemporary medical and lay opinion, which held that differences between local environments could endanger health. In discussing the susceptibility of newcomers to fevers in the West Indies and India, Thomas Trotter claimed a similar susceptibility existed within England, specifically for newcomers to "the ague counties" of the Fens. "It is proverbial of the farmers, in the unwholesome marshes," wrote Trotter, "marrying wives from distant parts, as a species of traffic to accumulate wealth; because they know that a stranger cannot live long in these fens."[39] By distant parts, Trotter meant other areas in England.

The European medical consensus in the eighteenth century held that moving over a greater distance between hot and cold climates posed even greater dangers, especially if the move occurred quickly. The vulnerability to disease of people arriving in a new environment provides a theme running through eighteenth-century British medical literature, but it was also a matter of common knowledge. One non-medical work from 1793 describes the hot climate of the West Indies as "certainly very unfriendly to European constitutions." It goes on to claim that with proper care, newcomers from Europe might avoid fatal diseases, but until their "rich" blood "becomes deluted [*sic*] or weakened by sickness, frequent perspirations...and other evacuations, they seldom enjoy a right state of health."[40] An earlier writer lamented that the Jamaican Assembly's "unreasonable feuds" had delayed until it was too late a bill to encourage a group of settlers to come to Jamaica from the Virgin Islands. "Because those People were inured to the climate" and labor, "they would have been of Infinite more service, than treble their Number

[39] Trotter, *Medicina Nautica*, I, 204.

[40] Moreton, *West India Customs and Manners*, 17-18.

from Europe or North America."[41]

Although many European and colonial writers claimed that Europeans could successfully acclimate to hot environments, they thought that doing so required constant mindfulness and discipline, and even then, Europeans remained imperfectly suited to the environment. Unfortunately, according to many commentators from doctors to military and government officials, British people in the West Indies too often suffered ill consequences from failing properly to suit their behavior to the environment. Writing in the 1740s, merchant James Knight claimed "it is a kind of proverb among them [the Spanish] that none but English men and Dogs, walk the streets at noon."[42] Given the demonstrated inability or unwillingness of adults from Europe and North America to "Conform to the Nature of the Place," one writer suggested sending teenage boys and girls from Britain to help establish a self-sustaining white population in Jamaica. Young people would probably not yet have developed bad habits, they would be more open to modifying their behavior, and they would be "best able to bear a Change of Climate."[43] Knight likewise suggested "import[ing] Boys & Girls that are about Ten or twelve Years of Age, for they will soon be inured to the Country, and the Climate become as Habituall [*sic*] to them as to the Natives." Knight continued, however, "of all Countrys [*sic*] England is the most improper to furnish Colonys [*sic*] or Infant Settlements with Inhabitants;" people from England enjoyed too much affluence and lacked the necessary hardiness. According to Knight, people from Wales made the best colonists for the West Indies, followed by Scots and Swiss

[41] BL Add MS 12415, James Knight, The Naturall, Morall and Political History of Jamaica: and the Territories depending; from the Earliest account of time to the year 1742, vol. 1, f. 237r.

[42] BL Add MS 12416, James Knight, The Naturall, Morall and Political History of Jamaica, vol. 2, f. 15r.

[43] BL Add MS 22676, Proposals for Increasing the Number of White Inhabitants And for Promoting the further Settlement of the Island of Jamaica [n.d., unsigned], ff. 141-143.

Protestants.[44]

Yet, paradoxically, for many observers, physical strength seemed to constitute a weakness for white people in the West Indies. This view was contested, but it was influential both in and out of medical circles into the nineteenth century. It held that the physical constitution and habits that young men developed in Britain left newcomers, especially soldiers, vulnerable to fevers and other inflammatory diseases common in hot climates. In a piece about yellow fever, a mid-century medical practitioner in Jamaica identified "Young robust Persons who have the tensest Fibres" and newcomers "in the heat and prime of Life" from Europe and North America as in the most danger. "Women and Men of lax habits," in contrast, had less to fear.[45] Army surgeon Stuart Henderson, writing in 1795, further developed this line of thought, claiming "it is remarked that the strongest men in a regiment, the grenadiers, are the first to suffer."[46] Several writers suggested that only men who had long been soldiers or had reached at least their late 30s should be stationed in the West Indies, as they would have undergone the changes in body and character—simply through age or from inculcation with habits of moderation and prudence in the army—necessary for life and labor there.[47] Other medical writers

[44] BL Add MS 12416, f. 171r. The Irish, on the other hand, "are by all means to be avoided as the common People are mostly Papists, and naturally attached to the Spaniards." In the late 1790s, the Jamaican Assembly protested the stationing of two infantry battalions in Jamaica on the ground that they included Catholic soldiers who would supposedly not become "useful and industrious Members of the Community" after their enlistments expired." See JA, 1B/5/13/1, [Jamaica] Committee of Correspondence to [Sewell], No.3, 2 Aug. 1798, ff. 50-51.

[45] Williams, *Essay on the Bilious, or Yellow Fever of Jamaica*, 50-51.

[46] Stewart Henderson, *A Letter to the Officers of the Army under Orders for, or That May Hereafter Be Sent, to the West Indies, on the Means of Preserving Health, and Preventing That Fatal Disease the Yellow Fever* (London: Printed for John Stockdale, 1795), 11. For another iteration of this point, see William Lempriere, *Practical Observations on the Diseases of the Army in Jamaica, as They Occurred between the Years 1792 and 1797; on the Situation, Climate, and Diseases of That Island; and on the Most Probable Means of Lessening Mortality among the Troops, and among Europeans in Tropical Climates*, vol. I (London: Printed for T.N. Longman and O. Rees, 1799), 245.

[47] For example, in 1803, General George Nugent, Jamaica's lieutenant governor, reported on the situation in St. Domingue. According to Nugent, the reinforcements committed by the French to "reduce the colony, must

decried the practice of sending older soldiers to the West Indies as sending physically unfit people to their deaths, though the practice seems to have been inconsistent.[48] High rates of disease and death in Jamaica, especially among whites in the prime of life, and in the face of the apparent relative immunity of enslaved blacks to tropical diseases, provoked concern about how a civilized and improving British society could exist when only constant immigration prevented the population from shrinking.[49]

Concerns about the degenerative effects of tropical environments on Europeans applied not only to individuals or even groups, but also to society in general. Eighteenth-century

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arrive much too late to effect any useful purpose, & particularly if the troops are of the description mentioned in the Public Prints; Men from 18 to 25 years of age, the Climate being more fatal at those Periods of Life than any other." NLJ, MS 72 (Nugent Papers), Nugent to J. Sullivan, No. 43, 29 March 1803. The famous Philadelphia doctor, Benjamin Rush, argued that soldiers under twenty years old were most susceptible to "camp diseases," while "men above thirty, and five and thirty years of age, were the hardiest soldiers" in the American Army during the American Revolutionary War. See William Blair, *The Soldier's Friend: Or, the Means of Preserving the Health of Military Men; Addressed to the Officers of the British Army* (London, 1798), 106. Thomas Trotter put the threshold for one to have a reduced disposition to fevers at age forty-five. See Trotter, *Medicina Nautica*, I, 199-200. Another approach to addressing the problem, sending soldiers to Gibraltar or Bermuda for seasoning before sending them to Jamaica, also seems to have received at most inconsistent use. In the 1790s, Trotter reported that military authorities employed this practice of seasoning, but in 1820 the Assembly's agent wrote that he had put this "by no means [] new" suggestion to Lord Liverpool, who replied it "should be attended to." See McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 40; Trotter, *Medicina Nautica*, I, 337. For the suggestion to Liverpool, see JA, 1B/5/14/4, George Hibbert to [Jamaica Committee of Correspondence], 4 Jan. 1820.

[48] In 1780, the physician to the troops in Jamaica pointed to "the miserable state of the Troops last sent out to this Island, many of them too old for any Service, far less for an Active Service in these unhealthy Climates." He suggested that sending these soldiers to Jamaica had resulted from the popularity of "an Idea…at Home that old people do very well in warm Climates." Nothing could be further from the truth, he wrote, given the chronic diseases that afflict older people: "old people coming out here go into Hospital the moment of their arrival, from which they never depart, till they are carried out." See TNA: PRO CO 137/78, Dr. Powell to Lord Germain, 2 Sept. 1780. At the end of the following year, however, the Jamaican Assembly's agent in London petitioned the king concerning Jamaica's military weakness, specifically mentioning the high mortality of young soldiers: "Your Humble Petitioner, truly sensible of your Majesty's Solicitude for the welfare & safety of your loyal subjects in that Island, having beheld with great regret, the young regiments sent over for their protection, unavoidably dwindled away by the inclemencies [*sic*] of the climate, most humbly prays that your Majesty will be pleased to send some of your seasoned Veterans to their assistance." TNA: PRO CO 137/81, "To the King's most excellent Majesty, The humble Petition of Stephen Fuller Esqr Agent for Jamaica," enclosed in Fuller to Germain, 19 Dec. 1781.

[49] For a treatment of "differential immunity" during this period, see McNeill, *Mosquito Empires.*

conceptions of climate as having the dominant influence in shaping human characteristics added to persistent questions about the possibility of reproducing a British population in colonies like Jamaica. On one level, this was an issue of health and numbers. In a "very Private & Confidential" "Sketch of the Characters of the principal Persons in Office in Jamaica," Lieutenant Governor George Nugent noted that although new officials should be appointed as soon as possible when positions became vacant, "there is scarcely any choice in some of the Parishes, the white Population is so ill composed & so trifling in Numbers."[50] This statement tacitly distinguishes Jamaica from Britain. Failure to cultivate the white settler population, it suggests, has created a flawed colonial society that is difficult to govern. In other words, the destruction of British people by disease became a major problem partly because it exacerbated security problems, and partly because it was simultaneously both cause and result of a failed settler society.[51]

As the final part of the above quotation suggests, there was more to the problem than health and numbers. Although the "European constitution" seemed vulnerable in the West Indies partly due to its slowness to adapt, behavior and moral characteristics seemed more mutable. Specifically, they seemed liable to degeneration or corruption. The "manners and customs" of the West Indies had long provided material for a range of commentators, and they continued to into the nineteenth century. During this period, the West Indies continued to seem in many ways "beyond the line:" places distant from Europe—not just physically, but also socially and culturally—where people indulged in reckless, cruel, irreligious, and intemperate behavior and

[50] NLJ, MS 72 (Nugent Papers), "Sketch of the Characters of the principal Persons in Office in Jamaica" ("very Private & Confidential") [unsigned, n.d.]

[51] Burnard, "A Failed Settler Society: Marriage and Demographic Failure in Early Jamaica."

led transient existences.[52] This view comes out especially in antislavery works from the late eighteenth century on, but it appears in a variety of sources from throughout the period, pointing to concerns about the health and integrity of society in the West Indian colonies.

Acclimatization, in this instance, presented difficulties for contemporary observers in Britain and the colonies. Proslavery writers such as Edward Long denied that colonists and colonial society exhibited degeneration, although they often hedged these denials and expressed concerns about cultural and sexual mixing between blacks and whites. Nonetheless, in the context of dominant explanations for human variation that connected mind, body, and environment, Jamaica's distance and apparent difference from Britain posed questions about how to create a British population outside of Britain. One commentator on the West Indies remarked it "very amazing indeed" that "even men from other countries, when they get innured [*sic*] to the West Indies, how imperceptably [*sic*], like wax softened by heath [*sic*], they melt into their manners and customs."[53] According to William Falconer, "even the children of Europeans, born in the Indies, lose the courage peculiar to their own climate."[54] Even if one could keep British colonists alive and healthy in the West Indies, then, the problem of the population's degeneration in subsequent generations would inevitably arise. An anonymous late eighteenth-century writer blended questions of moral and physical degeneration, suggesting that they could not be contained within colonies: "prompted by ambition, and corrupted by vice, the Europeans have overspread the East with Indian carnage; and penetrated to the *Torrid Zone* to barter their virtues, their people, and coin, to gain possessions that enfeeble them, and vices that render them

[52] Richard S. Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624-1713* (Chapel Hill: The University of North Carolina Press, 1972).

[53] Moreton, *West India Customs and Manners*, 78.

[54] Falconer, *Remarks on the Influence of Climate, Situation...* 9-10.

detestable."[55]

Britain and Urbanization

Problems of managing populations also became important for British authorities during the eighteenth century, however, in relation to social, cultural, and economic developments in Britain itself. One of the most important of these developments was greatly accelerating, though uneven, urbanization. The eighteenth century in Britain continued and accelerated a preexisting trend of urbanization. According to one recent work, the period 1540 to 1700 saw increasing rates of migration from England's rural areas into towns, while at the same time, rates of rural population growth slowed. The conclusion is "that the towns 'drained off' some 40 per cent of the growth in population elsewhere for much of the seventeenth century."[56] The urban share of the population increased during the seventeenth century in England and, to a lesser degree, in Scotland. At the beginning of the eighteenth century, nearly 20% of the population of England and Wales lived in towns with at least 2,500 people. By the end of the century, about 30% did.[57] Between 1664 and 1778, the total population of England and Wales grew by nearly 50%, with another nearly 20% increase by 1801. During the same periods, the urban population increased by approximately 140% and 60% respectively.[58] Scottish urbanization followed a similar trajectory. One estimate has the share of Scotland's population in urban centers of over 10,000 people increasing from 5.3% to 9.2% between 1700 and 1750, and the rate of urban growth

[55] A Gentleman, well known in the political world, *An Original Treatise on the Causes of Depopulation, and the Calamities Occasioned by Extreme Commerce...And Some Useful Hints to the Legislature, Respecting the Real Strength and Happiness of the Empire* (London, 1784), 44.

[56] P. Griffiths et al., "Population and Disease, Estrangement and Belonging, 1540-1700," in *The Cambridge Urban History of Britain*, ed. P. Clark (Cambridge: Cambridge University Press, 2000), 198.

[57] P.J. Corfield, *The Impact of English Towns, 1700-1800* (Oxford: Oxford University Press, 1982), 2.

[58] Jon Stobart, "In Search of Causality: A Regional Approach to Urban Growth in Eighteenth-Century England," *Geografiska Annaler. Series B, Human Geography* 82, no. 3 (2000): 151.

increased further during the late eighteenth and early nineteenth centuries, with the urban percentage of the population by this measure reaching 17.3% in 1800.[59] Although the population remained overwhelmingly rural throughout this period, Britain was one of the most rapidly urbanizing areas in Europe.

Accelerating urbanization had affects across Britain, and not just due to migration to London. The sheer size and dominant cultural, political, and economic role of London made it the subject of vast quantities of private and printed commentary throughout the eighteenth and early nineteenth centuries. London was in a class of its own among British urban centers, with a population of nearly 700,000 by 1700. Despite stagnating during the first decades of the 1700s, London's population grew substantially over the next century, numbering nearly 1.1 million by the first national census in 1801. Nonetheless, despite London's continued preeminence, the most dynamic urbanization after 1700 occurred in the provinces.[60] Provincial cities and towns saw the highest rates of urban population growth over the century, and this growth depended largely on migration from the surrounding rural areas.

These developments suggest the utility of considering eighteenth-century British urbanization in terms of environmental change. Worries in Britain during the nineteenth century about the deleterious environmental and public health consequences of urbanization are well known. Along with concerns about poverty, they appear throughout fiction, newspapers, government reports, and other printed materials from the nineteenth century. They have continued to attract considerable scholarly attention: much more than their eighteenth-century antecedents. This is understandable, given the scale and rapid pace of nineteenth-century

[59] J. de Vries, *European Urbanization, 1500-1800* (Abingdon: Routledge, 2007, orig. pub. 1984), 39.

[60] Peter Borsay, *The English Urban Renaissance: Culture and Society in the Provincial Town, 1660-1770* (New York: Oxford University Press, 1989).

urbanization and industrial growth, which far outstripped that of the eighteenth century in Britain. According to an 1830 work focusing on London,

> under the dazzling influence of modern glory, we have pretty nearly banished every thing green, rural, and natural, beyond the circumjacent hills, and are rapidly closing up the whole valley with substantial brick-work. This amazing extent of brick-work under the general designation of London, now covers an area of about thirty square miles. When buildings are thus added to building, streets to streets, and parishes to parishes; and when human beings thus congregate together, and circulate over such a space, it necessarily follows, that there must be either a great deal of individual suffering, or of public indecency.[61]

London's population by this point had grown significantly above its late eighteenth-century levels, and would continue to grow still more. The explosion in population growth, the size of cities, and industrialization in the nineteenth century had environmental and public health effects on an entirely different scale than did eighteenth-century urbanization and industry. Partly as a result, as Roy Porter argued nearly thirty years ago, the "public sickness movement" of the eighteenth century has attracted far less attention than the "public health transformation" of the nineteenth century. Yet, people even during the earlier period increasingly recognized as critical the problems of managing the health of urban populations.[62]

Likewise, the smaller size and lower growth rates of eighteenth- compared to nineteenth-century British urban areas should not obscure widespread perceptions and experiences during the eighteenth century of urbanization as bringing significant changes not just socially and politically, but also environmentally. By environmental change in this context, I refer not to sweeping changes affecting large areas, but rather to changes in lived environments. Although

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[61] TNA: PRO HO 44/20, ff. 264r-264v, Thomas Dolby, *An Address to the Magistracy and Parochial Authorities, of London, Westminster and Southward, and of other Populous Cities in Great Britain and Ireland, on the Shamefulness of Certain Nuisances in the Public Streets, with Hints for their Removal* (London: William Dolby, 1830)

[62] Porter, "Cleaning up the Great Wen: Public Health in Eighteenth-Century London," 75.

eighteenth-century British towns remained relatively compact, they left increasingly large footprints on the landscape, multiplying in numbers and growing spatially. Contemporary writers, however, showed far less concern with this development than they did with the changing ratio of the population living and working in urban versus rural areas. According to the Virginia-born botanist and cartographer, John Mitchell, people in the English countryside increased in number so quickly that their population would swell "were they not to be expelled from the country, both for want of habitations and employments." He paired overseas colonies and large towns in Britain as the recipients of people from rural depopulation.[63] Recognition that urban areas comprised not just an increasing number of people but also an increasing share of the population also appeared in works presenting urban growth as a beneficial sign of societal progress. In the 1790s, the agricultural writer, Arthur Young, approvingly remarked on estimates that England's towns had grown to encompass approximately half of the country's population, attributing economic prosperity to "the number, size, and wealth of our towns, much more than from any other circumstance."[64]

The large volume of eighteenth-century writing touching on urban life and growth demonstrates perceptions that accelerating urbanization created a clear distinction from the past. Urbanization's effects worried not only moralizing traditionalists, but also many of those who approved of agricultural reform and commercial growth. William Buchan, among others, lamented the fall in agricultural employment. One 1772 work portrays the eighteenth-century growth of cities such as London and Dublin as so massive as to demand comparison with Babel,

[63] Mitchell, *The Present State of Great Britain and North America*, 10-11, 14-15.

[64] Young, *Travels,* quoted in Corfield, *The Impact of English Towns, 1700-1800*, 9.For a similar position focusing on "the extraordinary healthiness of the town" of Maidstone, and claiming that the growth of towns and country are mutually reinforcing (rather than towns acting as parasites on the country), see *Observations on the Increased Population, Healthiness, &C. Of the Town of Maidstone*, (Printed by J. Blake, 1782), 18-22.

rather than any closer historical situation. The "excessive growth" of eighteenth-century British cities, in this conception, takes human beings to a new and widening remove from the rural living intended by God, and as a result it threatens lives, morality, and liberty.[65] In the late 1790s, Thomas Malthus, not one to romanticize rural life, claimed that social and political authorities in Europe had made a mistake in encouraging town over agricultural labor. This mistake "brought on a premature old age" for society.[66]

Writers of all stripes in the eighteenth century distinguished urban and rural areas as fundamentally different physical spaces. In a 1784 book entitled *A Familiar Medical Study of Liverpool,* for example, the author, a surgeon, depicts rapidly growing Liverpool as a healthy city. In doing this, the author acknowledges urban and rural areas as having distinct health characteristics, although he seeks to complicate this categorization by suggesting the relative healthiness of some cities and the unhealthiness of some rural locales.[67] Despite this, Liverpool, and by extension, other towns, appears as a distinctively urban space where foliage, as in the later piece about London quoted above, is rare. "We find," the author states, "that few of the

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[65] *Justice and Policy. An Essay on the Increasing Growth and Enormities of Our Great Cities...To Which Is Added, Thoughts on Conquests, Trade, and Military Colonies, &C. &C. Divided into Seven Chapters. Addressed to a Noble Peer, by a Freeholder in Ireland, and a Stockholder in England,* vol. [Part I] (Dublin: Printed for the author, 1772), especially 2-5.

[66] T.R. Malthus, *An Essay on the Principle of Population, as It Affects the Future Improvement of Society. With Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers* (London, 1798), 344.

[67] W. Moss, *A Familiar Medical Survey of Liverpool: Addressed to the Inhabitants at Large...With an Account of the Diseases Most Peculiar to the Town; and the Rules to Be Observed for Their Prevention and Cure: Including Observations on the Cure of Consumptions. The Whole Rendered Perfectly Plain and Familiar* (Liverpool: Printed by H. Hodgson, 1784), 18. Reverend John Howlett similarly offered Chester as an example showing that that although large towns in general were unhealthy and morally corrupting, correct policy could successfully address the problems. See Rev. John Howlett, *An Examination of Dr. Price's Essay on the Population of England and Wales; and the Doctrine of an Increased Populated in This Kingdom; Established by Facts. To Which Is Added an Appendix. Containing Remarks on Dr. Price's Argument of a Decreased Population Deduced from the Decreased Produce of the Hereditary and Temporary Excise* (Maidstone: Printed for the author by J. Blake, n.d.), 10-12.

most hardy trees and vegetables will live, and still fewer that will thrive, in the center of a large town. They are injured and destroyed by the coal smoke, which contains a great deal of sulphur."[68] The book attributes this defoliation of Liverpool to industrial activities, which, along with their health effects, receive detailed attention in the book. Interestingly, the author portrays these effects as mostly beneficial or neutral to human health, despite the destruction of plants and the land that he acknowledges as resulting from industrial pollution. For example, according to the author, "the incessant stream of smoke" from the copper works, although "disagreeable and unpleasing," helps purify the air in the city. Similarly, the smoke from burning coal might have some harmful effects on asthmatic people, but the author argues that overall, it too plays an important part in preventing the dangerous corruption of the air so common in urban areas.[69]

These arguments follow the same reasoning as widespread suggestions and practices for fumigating naval, slave, and convict vessels from the late eighteenth century, indirectly highlighting views of cities as dangerously unnatural spaces in need of constant regulation. Burning sulfur or igniting gunpowder within the confines of a ship's hull had the aim of purifying air that would always tend to become corrupted from the concentration of large numbers of people within a small, enclosed space.[70] In fact, the *Familiar Medical Study* mentions Liverpool having a "convenience" for spreading tobacco smoke into the air for the purpose of improving or preserving health. "*Tobacco*," according to the author, "is also well known to be a powerful corrector and resister of infectious diseases."[71] Despite this, the book's

[68] Moss, *Familiar Medical Survey of Liverpool*, 33.

[69] *Familiar Medical Survey of Liverpool*, 32-33.

[70] Although this was widely accepted practice, some medical practitioners dissented. For example, see Trotter, *Medicina Nautica*, I, 162, 222.

[71] Moss, *Familiar Medical Survey of Liverpool*, 30-31. Quote on p. 31, emphasis in original.

explanations of the beneficial health effects of coal smoke and sulfur all appear in the context of refuting the apparently common wisdom among other commentators that smoke and other emissions contributed to the extreme unhealthiness of cities.

Contemporaries obsessed about the unhealthy environments large towns created, and their effects on a rapidly growing share of the nation's population. For instance, one moralizing work from the early 1770s deemed London "the great gulph [*sic*] that swallows up the people."[72] In a 1788 work on human mortality and its causes, Irish physician William Black, a vocal proponent of smallpox inoculation, stated that harsh urban environments resulted in high mortality early in life. In Black's words: "Infants in cities resemble tender delicate plants excluded from fresh air; or fish confined in stagnant putrid water: they perish before acquiring a solidity and seasoning to endure the adulterated quality of the surrounding element; and their thread of life is then suspended by a tender cobweb."[73] This statement echoes an earlier one from the famous naval physician, James Lind, on the dangers Europeans exposed themselves to on entering tropical environments. Lind compared people leaving their native climate to "plants removed into a foreign soil;" to maintain their health and "inure them to their new situation" would require "the utmost care and attention."[74]

Many other medical works from the period claim that growing up in an urban environment led to long-term physical impairments or weaknesses. William Buchan, in his hugely popular eighteenth-century medical self-help work, *Domestic Medicine,* was among the

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[72] *Justice and Policy*, [Part I], 5.

[73] William Black, *A Comparative View of the Mortality of the Human Species, at All Ages; and of the Diseases and Casualties by Which They Are Destroyed or Annoyed. Illustrated with Charts and Tables* (London: C. Dilly, 1788), 39-40.

[74] James Lind, *An Essay on Diseases Incidental to European in Hot Climates. With the Method of Preventing Their Fatal Consequences.*, 4th ed. (London: J. Murray, 1788), 2-3.

many who argued that smoke in urban areas contributed to the problem of corrupted air. According to Buchan, "In great cities so many things tend to pollute the air, that it is no wonder it proves so fatal to the inhabitants. The air in cities is not only breathed repeatedly over, but is likewise loaded with sulphur [*sic*], smoke, and other exhalations, besides the vapours continually arising from innumerable putrid substances, as dunghills, slaughterhouses, &c."[75] These views stood solidly in the mainstream. The doctor and medical demographer, Thomas Short, writing about cities and other places with great concentrations of people, remarked on "the manifest Difference between a clear, open, free, thin Air, and a close, sultry, smoaky [*sic*] Atmosphere, not ventilated, but loaded with excrementitious and animal Effluvia."[76]

During the latter half of the eighteenth century, many commentators observed improvements in the urban health situation.[77] Still, even the most optimistic commentators generally refrained from calling urban areas healthy, except in localized instances. According to a 1774 article in the Royal Society's *Philosophical Transactions*, Manchester had become a healthier place of late than it had been, "but it must be acknowledged, that large towns are injurious to population." All the efforts to improve health had "only served to check the destructive tendency of the accumulation of inhabitants." As evidence for this, the article compares yearly mortality in several cities and rural areas; it gives Manchester's figure as 1 in 28 people, London's as 1 in 21, and one rural Devonshire parish at only 1 in 54. Moreover, it claims

[75] William Buchan, *Domestic Medicine: Or, a Treatise on the Prevention and Cure of Disease by Regimen and Simple Medicines*, 2nd ed. (London, 1772), 93.

[76] Thomas Short, *New Observations, Natural, Moral, Civil, Political, and Medical, on City, Town, and Country Bills of Mortality. To Which Are Added, Large and Clear Abstracts of the Best Authors Who Have Wrote on That Subject. With an Appendix on the Weather and Meteors* (London: T. Longman and A. Millar, 1750), 57.

[77] Modern scholarship generally affirms the impression that towns became less unhealthy during the late eighteenth and the early nineteenth century, although the trend reversed after this period. See, for example, Corfield, *The Impact of English Towns, 1700-1800*, 123.

a 50% mortality rate in the first five years of life for children born in Manchester.[78] This was what Thomas Malthus, in the 1798 *Essay on the Principle of Population*, referred to as "the silent though certain depopulation of large towns."[79]

Another article from 1786 argues that the unhealthy influences of urban environments created an unusually great disparity between male and female mortality. Richard Price's introduction to the piece states that the greater size and nutrient needs of male fetuses leaves them especially susceptible to problems at birth. This susceptibility increases, Price argues, in the case of a parent's "debility," which is more likely in urban environments and "polished societies" than in the country.[80] The main text, by a doctor at the Dublin Lying-in Hospital and correspondent of Price's named Joseph Clarke, is more specific. Clarke blames the prevalence in urban environments of diseases like rickets for "producing mal-conformation of the female sex," and thus for causing head injuries to boys during birth. Further, he points to unhealthiness and weakness of urban- compared to country-dwelling women as causing malnutrition before birth, making boys "more apt to languish under disease, or die at some future period, from the application of noxious causes to an originally half-starved frame."[81]

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[78] Dr. Percival and Dr. Price, "Observations on the State of Population in Manchester, and Other Adjacent Places. By Dr. Percival. Communicated by the Rev. Dr. Price," *Philosophical Transactions of the Royal Society of London* 64(1774): 59-60.

[79] Malthus, *An Essay on the Principle of Population, as It Affects the Future Improvement of Society. With Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers*, 125.

[80] Joseph Clarke and Richard Price, "Observations on Some Causes of the Excess of the Mortality of Males above That of Females. By Joseph Clark, M.D. Physician to the Lying-in Hospital at Dublin. Communicated by the Rev. Richard Price, D.D. F.R.S. In a Letter to Charles Blagden, M.D. Sec. R.S.," *Philosophical Transactions of the Royal Society of London* 76(1786): 349-50.

[81] "Observations on Some Causes of the Excess of the Mortality of Males above That of Females. By Joseph Clark, M.D. Physician to the Lying-in Hospital at Dublin. Communicated by the Rev. Richard Price, D.D. F.R.S. In a Letter to Charles Blagden, M.D. Sec. R.S.," *Philosophical Transactions of the Royal Society of London* 76(1786): 352-53.

As the above examples of disease and physical deformation suggest, the issue of societal regression extended beyond simply the supposed decrease in numbers of the population. In addition to the problems directly associated with urban mortality and morbidity, urbanization in Britain raised other concerns grounded in the same strands of thought that informed concerns about population in tropical, largely rural, colonial contexts. A tension existed within eighteenth- and early nineteenth-century conceptions of climate's influence on the physical and moral characteristics of populations. On the one hand, these conceptions incorporated a fairly rigid environmental determinism, although they generally allowed for long-term acclimation to new environments. On the other hand, they simultaneously presented national and regional characteristics as malleable. As I noted at the start of this chapter, despite climate's preeminence among the factors thought to determine human characteristics, its influence appeared as something that could be limited, counteracted, or subverted by other circumstances, for good or for ill. If urbanization acted as a mode of environmental change, altering the lived environments of a growing proportion of Britain's population, it might provide such a limiting or subversive influence. Growing cities and towns seemed to create local environments that differed greatly from the broader imagined geography within which a variety of written authorities placed Britain. Eighteenth-century doctors, philanthropists, and social and political commentators portrayed urbanization as mediating people's experience of and interaction with Britain's climate, and as a result as mediating the climate's influence on them.

In this respect, eighteenth-century urbanization stimulated a range of thinking about not just the population's size, but also about its apparently changing character. It became a commonplace view that urbanization counteracted the beneficial effects of Britain's climate, potentially eliding distinctions between British people and others. William Buchan tied together

urbanization and increasingly widespread industrial employment as relatively recent phenomena that were changing the characteristics of the population. He argued that they created a physically weak and sickly urban population in place of the historically strong, healthy rural one. "The rickets," he wrote, "so destructive to children, never appeared in Britain till manufactures began to flourish, and people, attracted by the love of gain, left the country to follow sedentary employments in great towns. It is amongst these people that this disease chiefly prevails, and not only deforms, but kills many of their offspring."[82] The author of a late-century piece pitched to "patriotic travellers" claimed that one would find "the genius, manners, and customs of a nation…much more original in provinces, as are at the greatest distance from the capital." Large cities, in other words, changed the natural character of a nation's population.[83] According to one contemporary French publication, quoted approvingly in a British moralizing work from the 1770s, "the taste and sentiments of citizens are so different from what is found among country people, that they seem to be quite another species of men."[84]

These and many other works related high urban death and disease rates to the physical and moral degeneracy of urban- compared to rural-dwelling people. The doctor and medical demographer, Thomas Short, expressed a widespread view when he wrote that "Incitements and Opportunities to Wantonness" simultaneously reduced fertility and increased the number of illegitimate children in towns. In addition, he claimed that urban parents' immoral behavior had negative physical consequences for their children. According to Short, "from the greater Number of Buryings [*sic*] than Christenings in all rich and populous Towns, it is very obvious that

[82] Buchan, *Domestic Medicine*, 27.

[83] Count Leopold Berchtold, *An Essay to Direct and Extend the Inquiries of Patriotic Travellers; with Further Observations on the Means of Preserving the Life, Health, & Property of the Unexperienced in Their Journies by Land and Sea....* (London, 1789), 38.

[84] *Justice and Policy*, [Part I], 5, note e.

Seminaries of Vices, are only Seminaries of Diseases and Death; and that Uncleannesses [sic] and Intemperance, not only lessen, or often hinder Procreation, but are highly injurious to Beings procreated."[85]

Other writers emphasized the interrelatedness of the mind and the body in making a case for urban populations' distinctiveness from rural ones. William Falconer claimed "effluvia" in the air could cause contagious fevers, but that people rarely underwent exposure to high enough concentrations of sufficiently "virulent" effluvia to have this effect. According to Falconer, however, impure air could have less spectacular effects on the body that, in turn, could influence the "genius and disposition" even of large groups of people, "particularly those who are shut up in large towns and close streets" and sailors aboard ships. Granted, Falconer goes on to qualify his remarks, but only slightly: "Perhaps it may be refining too far, to ascribe the timid character generally attributed to the inhabitants of great cities to this cause; yet a disposition of the body to putrefaction, produces this effect in a remarkable manner."[86]

Although eighteenth-century urbanization and industrial activities had limited environmental impacts compared to those of the nineteenth century, they occupied prominent places in discourse. The localized environmental effects of urban growth seemed considerable, and they had a growing number of people on whom to act. Moreover, eighteenth-century doctors, government officials, social commentators, and others realized that an increasingly large proportion of Britain's population lived and worked in urban areas; in fact, many overestimated that proportion. The dangers to health seemed manifest, but concerns about the potential effects

[85] Short, *New Observations, Natural, Moral, Civil, Political, and Medical, on City, Town, and Country Bills of Mortality. To Which Are Added, Large and Clear Abstracts of the Best Authors Who Have Wrote on That Subject. With an Appendix on the Weather and Meteors* 121.

[86] Falconer, *Remarks on the Influence of Climate, Situation...* 167-68.

on the character of the population more generally also arose. If a combination of external factors determined individual, regional, and national characters, it followed that major changes in those factors could translate into major changes in character, even though Britain's climate remained the same. Urban areas seemed to create unhealthy microenvironments that differed from those in rural areas, and that mediated city-dwellers' experiences of the climate. Consequently, a range of commentators worried that the beneficial effects of the climate on Britain's population might be subverted as the urban share of the population grew.

Transatlantic Connections and Networks

Although the problems of managing populations in British urban environments and predominately rural, tropical colonial environments plainly differed, they became parts of a set of discourses across colonies and metropole in which population figured as the focus of approaches to governing. Doctors, through their correspondence, publications, and experiences managing the health of populations, played a major role in the development of this focus; many of the sources cited above were written by or show the influence of doctors. Rapidly growing towns and cities across Britain created demands and opportunities for medical practitioners, foregrounding problems of urban population health, especially in expanding hospital practice. West Indian colonies, especially Jamaica, also drew many physicians, surgeons, and others professing medical expertise. By the mid-eighteenth century, Charles Leslie remarked that Jamaica had a superabundance of medical practitioners, a recurrent observation into the nineteenth century.[87] Physicians and surgeons often traveled between colonies and planned to

[87] Charles Leslie, *A New and Exact Account of Jamaica, Wherein the Antient and Present State of That Colony, Its Importance to Great Britain, Laws, Trade, Manners and Religion, Together with the Most Remarkable and Curious Animals, Plants, Trees, &C. Are Described: With a Particular Account of the Sacrifices, Libations, &C. At This Day in Use among the Negroes*, Third ed. (Edinburgh: Printed by R. Fleming, 1740), 52. In 1820, Dr. Jacob Adolphus, the army's chief medical officer in Jamaica, wrote that Jamaica was "overstocked" with doctors. NLJ, MS 2, Vol. I, Jacob Adolphus to Dr. Forbes, 4 March 1820, p. 180.

return to Britain if possible. As late as the early nineteenth century, physician John Williamson wrote that young people traveled to distant places aiming to gain knowledge and money "and, when our exertions permit us, to return to our native land."[88] In a 1714 piece preoccupied with improving the health of Britain's population, Quaker social commentator John Bellers advocated sending doctors around the world to obtain knowledge of new medicines "among the Indians and Negroes."[89] Though centralized coordination remained sporadic before the nineteenth century, British and colonial medicine were mutually informative; practitioners disseminated knowledge from their experiences in different contexts.[90] For example, after returning to England after briefly working as a physician and naturalist in Jamaica, Hans Sloane published and corresponded on a range of scientific and medical topics with people throughout the Atlantic World. He helped spread ideas about medicine and the influences of environment on different populations, most notably in his two-volume *Voyage to the Islands Madera, Barbados, Nieves, St. Christophers and Jamaica*. These books were widely cited by authors writing about the West Indies, medicine, botany, and natural history throughout the eighteenth century and later.

Other geographically mobile doctors also contributed to transatlantic and wider circulations of ideas and practices focused on managing the health, numbers, and character of populations. The eminent late-century Quaker physician, John Coakley Lettsom, was born in the Virgin Islands and he later entered briefly into practice there as a surgeon. He eventually

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[88] John Williamson, *Medical and Miscellaneous Observations Relative to the West India Islands*, 2 vols., vol. I (Edinburgh, 1817), 2.

[89] John Bellers, *An Essay Towards the Improvement of Physick. In Twelve Proposals. By Which the Lives of Many Thousands of the Rich, as Well as of the Poor, May Be Saved Yearly. With an Essay for Imploying the Able Poor; by Which the Riches of the Kingdom May Be Greatly Increased; Humbly Dedicated to the Parliament of Great Britain* (London, 1714), 9.

[90] See Harrison, *Medicine in an Age of Commerce and Empire: Britain and Its Tropical Colonies, 1660-1830*.

established a hugely successful medical practice in London catering to the social elite, but he was especially concerned with improving medical care for the urban poor and with securing the population from smallpox through inoculation. He maintained energetic correspondence on medical subjects, including yellow fever and inoculation, with doctors throughout Britain and North America. In addition, he associated with a number of other prominent doctors with experiences and connections throughout the Atlantic as a member of the Royal Jennerian Society for the Extermination of the Small Pox, an organization that aggressively worked to spread vaccination throughout Britain, as well as colonies and other countries. Finally, Lettsom further developed his international and transatlantic medical connections by becoming a fellow of the Royal Society and helping found the Medical Society of London, both in 1773.

The Medical Society, like the Royal Society, drew its membership from throughout Britain, British colonies, and elsewhere, as well as from the armed forces. Through its meetings and, especially, its solicitation and publication of articles, it linked remotely medical practitioners and circulated ideas about managing health.[91] Many of these ideas had to do with elements of surgery and medical treatment, but the Society's essay competitions in the late 1780s and 1790s show a particular concern with disease in relation to populations. In 1788, the Society awarded a medal for a paper on endemic disease in Leeds, reflecting the Society's aim "to encourage every enquiry respecting the Diseases of the Manufacturing Class of People."[92] The following year, the Society's Council decided to solicit submissions for 1791 on the question of "What Diseases are most prevalent in Great Towns, and what are the best methods of obviating

[91] One of its earliest rules restricted corresponding memberships to only those who actually communicated reports or articles to the Society. WL, SA/MSL/B/1/1, Council Minutes, Medical Society of London, Vol. I, 31 Aug. 1773, p. 2.

[92] WL, SA/MSL/B/1/1, 2 Feb. 1788.

them."[93] Lettsom had proposed this question, and he won the prize for the competition.[94] Topics for other years included the diseases of prisons and the spread of contagion, a topic on which the council sought information through prison reformer John Howard.[95]

Physicians and surgeons moved easily between civilian and military employments, connecting medical practice in the armed forces, which increasingly focused on managing the health of populations, with civilian practice.[96] The prominent Scottish physician, Sir Gilbert Blane, left for the West Indies in 1779 as Admiral George Rodney's private physician. In 1780, Blane formally entered naval service as fleet physician, a post he held until he left the navy in 1783. He then set himself up in civilian practice and gained a post as a physician at St. Thomas's Hospital in London. During this period, Blane published an influential book on maritime health, drawing on the work of widely-read authors including physician James Lind and Captain Cook in emphasizing preventive strategies targeting groups over cures for individuals.[97] The French Revolutionary Wars brought Blane back into the navy from 1795 to 1802, this time as one of the commissioners on the Admiralty board tasked with managing sailors' health. These experiences informed his later writings on health, national character, environmental determinism, and population more generally.[98] Sir John Pringle similarly moved from practice in the army to

[93] WL, SA/MSL/B/1/1, 21 Jan. 1789, 2 March 1789.

[94] Penelope Hunting, *The Medical Society of London, 1773-2003* (London: The Medical Society of London, 2003), 15.

[95] *The Medical Society of London, 1773-2003* (London: The Medical Society of London, 2003), 16; WL, SA/MSL/B/1/1, 9 Feb. 1789, 23 Feb. 89, 20 April 89.

[96] Harold J. Cook, "Practical Medicine and the British Armed Forces after the "Glorious Revolution"," *Medical History* 34(1990). For an earlier work arguing for military health practices significantly influencing those outside the armed forces, see Mathias, "Swords and Ploughshares."

[97] Gilbert Blane, *Observations on the Diseases Incident to Seamen* (London, 1785).

[98] For example, see Blane, *Reflections on the Present Crisis on Publick Affairs*.

civilian medicine, eventually becoming president of the Royal Society. He also foregrounded population-oriented strategies for improving health across these contexts through his presidency of the Royal Society and in his publications, which were extensively cited by others in Britain and its colonies.[99] Publishing and reading occurred across professions as well as colonial and metropolitan, public and private distinctions. Medical men working in the army, navy, slave ships, and prisons "published their findings and read each other's work, and that of their predecessors and colleagues in other European services."[100]

These movements and overlaps between putatively public and private spheres constituted pathways for the flow of ideas, experiences, and practices concerning population. Robert Jackson invoked his military experience to advance claims about the character of different populations and to prescribe strategies for managing the health of those populations, both in the military and outside it.[101] Thomas Trotter likewise cast medical service in the armed forces as providing crucial insights about disease and the management of health in general. According to Trotter, "My accounts of different diseases, besides the more immediate connection they have with naval

[99] See John Pringle, *Observations on the Diseases of the Army, in Camp and Garrison. In Three Parts. With an Appendix, Containing Some Papers of Experiments, Read at Several Meetings of the Royal Society* (London: A. Millar, D. Wilson, and T. Payne, 1752); Sir John Pringle, *A Discourse Upon Some Late Improvements of the Means for Preserving the Health of Mariners. Delivered at the Anniversary Meeting of the Royal Society, November 30, 1776.* (London: The Royal Society, 1776); Lawrence, "Disciplining Disease: Scurvy, the Navy, and Imperial Expansion, 1750-1825." For just a few examples suggesting Pringle's status as an authority, see Richard Brocklesby, *Oeconomical and Medical Observations, in Two Parts. From the Year 1758 to the Year 1763, Inclusive. Tending to the Improvement of Military Hospitals, and to the Cure of Camp Diseases, Incident to Soldiers. To Which Is Subjoined, an Appendix, Containing a Curious Account of the Climate and Diseases in Africa, Upon the Great River Senegal, and Farther up Than the Island of Senegal. In a Letter from Mr. Boone, Practitioner in Physic to That Garrison for Three Years, to Dr. Brocklesby* (London: Printed for T. Becket and P.A. De Hondt, 1764), 27; Trotter, *Medicina Nautica*, I, 295. William Buchan dedicated *Domestic Medicine* to Pringle.

[100] Haines and Shlomowitz, "Explaining the Mortality Decline in the Eighteenth-Century British Slave Trade," 274.

[101] For a few notable examples, see Jackson, *A Treatise on the Fevers of Jamaica*, esp. 50, 255-58; *An Outline of the History and Cure of Fever, Endemic and Contagious; More Expressly the Contagious Fever of Jails, Ships, and Hospitals; the Concentrated Endemic, Vulgarly the Yellow Fever of the West Indies. To Which Is Added, an Explanation of the Principles of Military Discipline and Economy; with a Scheme of Medical Arrangement for Armies* (Edinburgh: Mundell & Son, 1798), 27-28, 38.

service, will be found useful to medical readers in general. They abound with facts that could be met with no where else; and being compiled from a number of cases, they bring into one view an endless variety of symptoms."[102] When the British government formed a short-lived Board of Health in the early nineteenth century, at least two of the board's eight members had served at some point as doctors in the armed forces. Although the board made recommendations on military health, it also recommended policies for preserving the civilian population from epidemic disease. Further, the board's recommendations took in both Britain and overseas colonial contexts.[103]

A number of doctors who served in the Royal Navy also had experience as surgeons on slave ships. Historians have noted the connection between war and the supply of surgeons for the navy and for the Atlantic slave trade. The large numbers of military and naval personnel demobilized following wars included many doctors.[104] Before the early 1790s, newly demobilized naval surgeons in need of employment sometimes turned to the slave trade.[105] Thomas Trotter, who eventually became an important figure in naval health, followed this course. According to Trotter, at the end of the American War, "my rank on the Navy List not

[102] Trotter, *Medicina Nautica*, I, 2.

[103] See TNA: PRO PC 1/3637(Reports of the Board of Health, 1805-1806).

[104] Jacob Adolphus noted that the end of the Napoleonic Wars had left doctors at the mercy of the market. NLJ, MS 2, Adolphus to Dr. Forbes, 4 March 1820, p. 180.

[105] Richard Sheridan, "The Guinea Surgeons on the Middle Passage: The Provision of Medical Services in the British Slave Trade," *The International Journal of African Historical Studies* Vol. 14, no. 4 (1981): 611; Brian Vale and Griffith Edwards, *Physician to the Fleet: The Life and Times of Thomas Trotter, 1760-1832* (Woodbridge: The Boydell Press, 2011), 54-55. Naval surgeons of the French Revolutionary and Napoleonic Wars were less likely than their predecessors to have worked in the slave trade, because many of them started in medical practice during a long period of near continuous warfare between Britain and France, which kept them well-employed through the end of legal British participation in the slave trade. E-mail from John Cardwell.

intitling [*sic*] me to immediate employ, it was my fortune to embark on an African voyage."[106] Further, Trotter stated that he knew twenty other navy surgeons who did the same, for the same reason.[107] Trotter expressed extreme distaste for this necessity, and for the slave trade in general; he made only one slaving voyage, and it turned him into an antislavery activist.[108]

Similarly to army and navy medicine, medical practice in the transatlantic slave trade focused attention on populations over individuals; the overriding goal was to maximize the sale value of the cargo as a whole. In 1742, a naval captain requested an appointment as a surgeon's mate for a man he implied had worked as a slave ship surgeon: "he is very well recommended to me as an able Person in the Practice of Surgery; he has been in that Quality to Guinea and the West Indies in a merchants ship, but never in the Navy."[109] Listing this experience as a qualification for naval service points to perceptions by mid-century of similarities between the problems of managing the health of British sailors and African slaves aboard ships, a point I will develop in subsequent chapters. Although the dearth of comprehensive personnel records for the eighteenth century makes it difficult to know precisely how many other doctors worked in both the British Navy and the slave trade during the eighteenth century, there were probably many and they included prominent members of the medical profession.[110] Trotter attained high rank in the

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[106] Thomas Trotter, *Observations on the Scurvy: With a Review of the Theories Lately Advanced on That Disease; and the Opinions of Dr Milman Rendered from Practice* (Edinburgh, 1786), 21.

[107] *Medicina Nautica*, I, 326.

[108] David Boyd Haycock, "Introduction: Health, Medicine and the Maritime World: A History of Two Centuries," in *Health and Medicine at Sea, 1700-1900*, ed. David Boyd Haycock and Sally Archer (Woodbridge: The Boydell Press, 2009), 11, 13.

[109] HL, Pocock Papers, Box 3, PO 442, George Pocock to the Navy Board, 27 Dec. 1742.

[110] Sheridan, "The Guinea Surgeons on the Middle Passage: The Provision of Medical Services in the British Slave Trade," 612-13. In addition to Trotter, Sheridan lists a number of other well-known physicians and surgeons who served both in the Royal Navy and aboard slave ships: James Arnold, Isaac Wilson, Ecroide Claxton, and Archibald Dalzel.

naval medical service, eventually serving as physician for the Channel Fleet. He also published several respected works on health, both maritime and general, emphasizing the management of populations and generalizing techniques for doing so across the navy and the slave trade.[111] In addition, he maintained extensive medical correspondence, including with Edward Jenner on making smallpox vaccination general in Britain.[112] Trotter's support for vaccination followed from his earlier support for general inoculation as a tool for improving naval effectiveness by securing the health of sailors.[113] Another doctor, Elliot Arthy, based much of his claim to medical and, more broadly, social and economic authority on his statement that he had served as a surgeon's mate in the Royal Navy for three years during the American Revolution and as a slave ship surgeon for eight years.[114] To bolster his claims, he invoked his reliance on the published writings of established medical authorities, such as Dr. John Hunter's *Diseases of the Army in Jamaica,* in the process further demonstrating the connections between learned medicine, especially in the armed forces, and managing the health of enslaved populations in the transatlantic slave trade.

Institutional bodies like the Admiralty's Sick and Hurt Board helped generate and spread ideas and practices for managing the health of soldiers and sailors. Many of the ideas for management practices and trials, however, originated not from the administrative center, but from operational peripheries. Institutions like the Sick and Hurt Board acted as important

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[111] See Chapter 4 and, especially, Chapter 5 below.

[112] For example, see NMM: MSS74/073, Edw. Jenner (Berkeley) to Doctor Trotter (Newcastle), 22 July 1821, 26 Nov. 1822.

[113] Trotter, *Medicina Nautica*, I, 387.

[114] Elliot Arthy, *The Seaman's Medical Advocate: Or, an Attempt to Shew That Five Thousand Seamen Are, Annually, During War, Lost to the British Nation, in the West-India Merchants' Service, and on-Board Ships of War on the West-India Station...* (London: Messrs. Richardson and Mr. Egerton, 1798), iii.

conduits and clearinghouses for the flow of these ideas and practices across distant sites. Scottish naval surgeon and physician Robert Robertson's experiments in preventive medicine in the early 1770s provide a clear example of local initiative shaping directives from London. According to Robertson, surgeons and commanders had not done enough to follow the advice of James Lind in practicing "the prophylactick [sic] part of medicine."[115] As a surgeon aboard the *Rainbow* on a series of voyages to the western coast of Africa, Robertson took advantage of several opportunities to demonstrate the utility of this part of medicine. Robertson responded to an outbreak of disease amongst sailors who had spent a night ashore by administering doses of "Huxham's tincture," a medicine containing cinchona, to the sailors. Observing good results, he then obtained permission from the *Rainbow's* captain to try using the bark regularly as a preventative. Along with the surgeon of an accompanying naval vessel, he gave a tincture of cinchona bark and wine to sailors every morning before they went ashore.[116] Captain Collingwood, of the *Rainbow*, subsequently forwarded the surgeons' reports to the Admiralty, writing that the results of the experiment "were so visibly happy in the *Rainbow*" that he recommended the Admiralty make it universal for sailors on the Africa station.[117] The navy's Sick and Hurt Board, in turn, consulted "the most eminent Physicians in Town." These physicians agreed with Robertson's basic proposal, but suggested a different mode of administering the medicine. The Sick and Hurt Board adopted this suggestion, recommended formal trials of it, and approved compensation for the surgeons' expenses.[118]

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[115] Robert Robertson, *Observations on Fevers, and Other Diseases, Which Occur on Voyages to Africa and the West Indies* (London: John Murray, 1792), 190-91.

[116] *Observations on Fevers, and Other Diseases, Which Occur on Voyages to Africa and the West Indies* (London: John Murray, 1792), 191.

[117] NMM: ADM/E/41, Thomas Collingwood to Admiralty, 8 Sept. 1773.

[118] TNA: PRO ADM 98/10, Sick and Hurt Board to Admiralty, 13 Nov. 1773.

Robertson aimed to generalize a technique for managing the health of sailors as a group, not just for protecting or curing individuals, and he repeated his experiment on another voyage to Africa.[119] His report prompted the Sick and Hurt Board to reiterate its approval and arrange its own trial. The surgeons on the two ships conducting the new trial disagreed on the results, but the Board rejected the findings against using the bark to prevent fevers, claiming "all Experiments of preventive Medicines must require a length of time, and a Number of Instances to ascertain their good Effects."[120] The Board judged individual cases of apparent success or failure insufficient to pronounce on the general use of a medicine to secure British naval crews from disease.[121] Finally, following another trial in 1777, the Board recommended to the Admiralty that the practice be continued for all naval vessels going to the coast of Africa, which it soon was.[122]

The Sick and Hurt Board, then, translated and disseminated widely Robertson's ideas for managing the health of white laboring populations in tropical environments, and in doing so, it linked scattered naval surgeons with each other and the medical community in general. Thomas Trotter invoked these roles in his arguments for increasing the pay of naval medical personnel. Concerning the doctors on the navy's medical board, he stated

> It is not in Board hours alone, that these talents will be usefully employed: their private, as well as official correspondence, must pervade every corner of the department. Such is the nature of medical science, that as it is constantly acquiring new facts and

[119] NMM: ADM/E/41, Robertson to Collingwood, 1 Sept. 1774, copy enclosed with Collingwood to Stephens [Admiralty], 4 Sept. 1774.

[120] TNA: PRO ADM 98/11, Sick and Hurt Board to Admiralty, 3 Oct. 1775, f. 19r/p. 34.

[121] Throughout the century, naval commanders, doctors, and administrators conducted similar trials to find a means for preventing scurvy among sailors at sea. See Lawrence, "Disciplining Disease: Scurvy, the Navy, and Imperial Expansion, 1750-1825."

[122] TNA: PRO ADM 98/11, Sick and Hurt Board to Admiralty, 30 Jan. 1778, ff. 78v-79r/pp. 163-4. See also the Board's letter reminding the Admiralty of the recommendation, 4 Feb. 1778, f. 80v/p. 167.

> observations, these physicians will serve as a *focus*, where every scattered ray is to be condensed, and where every new idea will again diverge, for the information of the whole.[123]

But it was not simply a matter of receiving ideas and then spreading them. Instead, as noted above, the Sick and Hurt Board modified Robertson's method after consulting with other physicians. Moreover, the policy the navy eventually enacted restricted the prophylactic supply of cinchona to ships going to Africa. The Sick and Hurt Board repeatedly denied requests for cinchona from commanders of ships bound for the West Indies. Denials usually came with little explanation, but when Admiral Rodney requested that his ships receive the same allowance as ships on the African coast, the Board argued that conditions in the West Indies differed from those requiring the prophylactic use of cinchona in Africa.[124]

Robertson, however, viewed the fevers of hot environments around the world as essentially the same, and therefore as requiring the same treatment, even if individual people seemed to have different symptoms.[125] This view appears prominently in Robertson's book on health in Africa and the West Indies, the avowed purpose of which is primarily to educate and guide young surgeons. The book models Robertson's broader call for naval surgeons to share

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[123] Trotter, *Medicina Nautica*, I, 22.

[124] TNA: PRO ADM 98/67, Sick and Hurt Board to Capt. Nowell (HMS *Ferret*), 18 Nov. 1791, pp. 20-1, and to Captn. Hills (HMS *Hermione*), 9 March 1793, pp. 67-8. TNA: PRO ADM 98/14, Sick and Hurt Board to Admiralty, 18 Dec. 1781, pp. 33-4. In 1803 and 1804, at least, naval physicians and doctors aboard Nelson's fleet in the Mediterranean also supplied sailors going ashore with preventative doses of bark. Laurence Brockliss, M. John Cardwell, and Michael Moss, *Nelson's Surgeon: William Beatty, Naval Medicine, and the Battle of Trafalgar* (Oxford: Oxford University Press, 2005), 93-94.

[125] Robertson, *Observations on Fevers*, 189-90. Robertson wrote: "And as I am convinced from my own observation on the diseases which occur in the West Indies, and at Pensacola, and likewise from consulting most of the authors who have wrote upon diseases of hot climates, that those diseases are essentially the same in all of them, how widely soever [*sic*] they may apparently differ amongst the patients...It can hardly be expected then, that one fever on board of a ship in the Ganges, and another fever on board of a ship in the river Gambia, in any season of the year, should be exactly similar, though the fever in both the ships is of the same genus, and will in like manner be cured by one and the same method--bark alone" (189).

with the public their uniquely wide-ranging experience treating diseases in all areas of the world.[126] Although he praised the Sick and Hurt Board for adopting his suggestion, then, Robertson took steps to disseminate his experiences, ideas, and practices in print, beyond the institutional framework of the navy. Perhaps his views on the similarity of fevers across tropical and, apparently, marshy environments contributed to this decision. As late as 1813, when he served as physician to the Royal Naval Hospital at Greenwich, Robertson was working through private channels to encourage the broader use of cinchona as a preventative medicine. In a letter to prominent civilian surgeon Sir William Blizard, Robertson wrote that despite the years of testing the "Cinchona Gingerbread" had received, he was "nevertheless anxious that I should acquire & receive the sanction of the Colleges for general use and Practice in such Cases as the Cinchona is judged proper, and particularly that it should be fairly tried as a prophylactic in marshy or swampy Situations."[127] Robertson aimed to generalize a preventive medicine not simply to preserve the health of individuals, but to preserve the health of populations exposed to a common set of environmental conditions.

This discussion has focused on Britain as a major hub for the dissemination of ideas about medical practice and managing the health of populations. Yet, the webs of correspondence and dissemination of print culture in question also connected people and places outside Britain to one another. Debates about yellow fever, for instance, saw writers across the West Indies and North America respond to each other in print.[128] Irish navy doctor Leonard Gillespie, who was stationed in the Leeward Islands during the 1790s and early 1800s, actively worked to

[126] *Observations on Fevers*, vii-viii.

[127] WL, MS. 7471/54, R. Robertson to Sir William Blizard, 7 Sept. 1813.

[128] See Katherine Arner, "Making Yellow Fever American: The Early American Republic, the British Empire and the Geopolitics of Disease in the Atlantic World," *Atlantic Studies* 7, no. 4 (2010).

disseminate his own views about European health in hot climates to other doctors and naval commanders in the West Indies. In January of 1795, he wrote a letter to the local admiral with suggestions for "the Preservation of the Health of Seamen."[129] He also distributed copies of his published medical writings from his main post in Martinique to doctors and commanders he encountered. His hobbyhorse was intemperance, which he identified as central to many of the navy's problems with disease, but he also urged naval authorities to change sailors' diet—to alter "the European constitution," as James Lind, Robert Jackson, and others termed it—on the voyage to the West Indies. Gillespie also lauded the navy's prevention of overcrowding and provision of lime juice and wine to prevent scurvy, strategies he implied should be employed aboard troop transports, whose mortality rates he compared unfavorably with those on naval vessels.[130] These strategies applied to managing the health of individuals, but they primarily targeted groups. In a journal entry dated 25 January 1802, Gillespie noted that he had visited the newly arrived naval commander in the Leeward Islands, Admiral Totty, "and presented him with a copy of my Pamphlet on the preservation of the health of Seamen."[131] In an entry from the previous spring, he wrote that he had "sent Mr. Thos. Caird Surgeon of the Prince of Wales a Copy of my Book requesting him to lend it to the different Surgeons of the Squadron" that had just sailed for Jamaica.[132] Plainly, this constituted an act of professional self-promotion. But it also fit into a pattern of personal and professional correspondence that Gillespie maintained with friends and

[129] TNA: PRO ADM 101/102/9, 5 Jan. 1795.

[130] Leonard Gillespie, *Observations on the Diseases Which Prevailed on Board a Part of His Majesty's Squadron, on the Leeward Island Station, between Nov. 1794 and April 1796* (London: J. Cuthell, 1800), 122. For "the European constitution," see Lind, *An Essay on Diseases Incidental to Europeans in Hot Climates*, 2-3; Jackson, *A Treatise on the Fevers of Jamaica*, 255.

[131] TNA: PRO ADM 101/102/11, 25 Jan. 1802. Incidentally, Totty died of yellow fever less than six months later.

[132] TNA: PRO ADM 101/102/11, 29 March 1801.

colleagues in Britain and the West Indies.

Gillespie's efforts to spread his strategies for managing the health of laboring populations at sea in the West Indies started before and continued after he formally published them. He did this in 1798 and 1800, and his journals include several references to letters he sent to Sir Gilbert Blane, in London, asking for comments and help preparing a manuscript for publication.[133] When his work was published, it was published in London, but this should not obscure the connections and networks in the West Indies through which Gillespie worked to disseminate his ideas. In addition, Gillespie wrote his manuscript while in the West Indies and he remained there after its publication. Concerns about and approaches to problems of population arose from experiences and in sites across the Atlantic. They did not simply diffuse out from Britain to overseas colonial peripheries.

Conclusion

A number of studies have noted that the needs of empire and extensive warfare informed metropolitan concerns about population during the eighteenth century. Yet, even these works and others concerned with problems of managing populations in this period have generally done little to connect colonial and metropolitan contexts in detail. This chapter has attempted to provide a starting point for addressing this lacuna. It provides an outline of the emergence of authorities' growing preoccupation with problems of managing populations, arguing that this occurred in the eighteenth century rather than the nineteenth and that it did so concurrently in linked metropolitan and colonial sites. In making this argument, I have examined widespread early-modern conceptions of the creation of human characteristics and difference. These conceptions identified climate as the main determinant of physical, moral, social, and behavioral

[133] See TNA: PRO ADM 101/102/10, 28 April, 21 June, 14 Aug. 1799.

characteristics not just of individuals, but also of regional and national populations. Climate's influence on these characteristics appeared strong and persistent, if not permanent. In the context of rapidly expanding experience in distant and environmentally diverse West Indian and other colonies, the apparent persistence of traits imparted on British people by their native climate and situation went from being beneficial to marking a population at serious risk of decline and degeneration, and thus in need of targeted management. This demarcation occurred in contrast to the enslaved black population in the West Indies, which contemporaries observed to be well suited to the environment.

The concerns authorities had about population in colonies related in multiple ways to concerns about population in Britain itself, although that it not to say that they were identical across urban British and rural tropical colonial contexts. For one thing, the losses from emigration and high rates of disease and death among settlers in colonies impinged directly on the state of the population in Britain, as numerous writers on colonies and political economy pointed out. For another thing, although climate was widely believed to play the central role in determining the characteristics of individuals and populations, it was not the sole factor. This conception held that many other factors also contributed, and that they could counteract or subvert climate's influence. For many commentators, manufacturing and global commerce acted in this manner in eighteenth-century Britain, as did accelerating urbanization and migration from rural to urban areas. The latter of these developments especially stimulated thinking in terms of populations and their characteristics, and brought to the fore questions of how to manage them. Not only did urban areas create unhealthy physical environments that increased death rates—a characteristic that made contemporaries link them, often implicitly, but sometimes explicitly, to colonies in places such as the West Indies—they also threatened to alter and weaken the

character of Britain's domestic population, physically and morally. This would result in a population that in addition to being unsuited for life and labor in foreign environments would no longer be able to maintain the nation at home.

Finally, I have attempted to show some of the circuits through which these ideas and concerns flowed throughout the British Atlantic during the eighteenth and early nineteenth centuries. In particular, this chapter has traced some of the connections through correspondence, print, and migration between sites and spheres of employment that not only created widespread preoccupation with problems of population among British authorities, but also led to the emergence of commonalities in thinking about these problems across sites and populations. The next chapter develops these themes by exploring some of the specific ways in which population was configured as a social and political problem in relation to poor and laboring populations across interrelated metropolitan and colonial sites.

Chapter 2: 'Fatal Industry': Problems of Managing Laboring Populations in the Eighteenth-Century British Atlantic

In 1800, prominent Irish physician and navy surgeon Leonard Gillespie published a work on the health of British sailors in the West Indies. As did innumerable other eighteenth- and early nineteenth-century commentators on military and naval health, Gillespie identified alcohol abuse as a major contributor to high disease rates in the region. Much of the problem, he argued, arose from "the privation of ardent spirits, with which the fatal industry of these islands so abundantly furnish our seamen, on their arrival in the West Indies."[1] This statement has multiple valences. In its immediate context, it blames the products of empire in the West Indies for helping weaken and kill British sailors. Yet the phrase "fatal industry" clearly refers not just to the consumption but also to the production of goods in the West Indies. British sailors and soldiers provided security for this production to take place, but doing so exposed them to many health threats that exacted a heavy toll of disease and death. Furthermore, slaves' labor producing sugar and other goods placed them in similar danger, as Gillespie likely meant, given his critical remarks elsewhere on slavery.[2]

Gillespie's statement suggests connections between two laboring groups in a narrow context within the eighteenth- and early nineteenth-century British Atlantic. Yet, it also speaks more broadly to British and colonial authorities' concerns about managing poor and laboring populations across the Atlantic world. This chapter focuses on sailors and soldiers in the British armed forces, slaves in the West Indies, and the British urban poor, populations that are usually

[1] Gillespie, *Observations on the Diseases* 3, 211.

[2] He wrote about his views of slavery in his journal, as well as in print. For example, see TNA: PRO ADM 101/102/9, 24 Jan. 1795, 4 Feb. 1795, 1 March 1795.

treated separately by historians of eighteenth-century Britain.[3] I contend that, although these groups obviously differed in important ways, together they constituted an imperial labor force whose health and numbers greatly concerned authorities. The success of Britain's rapidly expanding colonial and military efforts depended on maintaining the health of increasingly large numbers of military personnel and slaves in Britain, on ships, and overseas. Social and political commentators, government officials, and others, however, viewed them not only as similarly important as providers of labor, but also as similarly vulnerable to health threats. In the eyes of authorities, this vulnerability arose largely from circumstances and characteristics these groups had in common as "the lower and servile sort of people," especially poverty, unhealthy or dangerous living and working conditions, and a supposed tendency toward self-destructive behavior. Contemporary observers increasingly viewed the disparity in health between these groups and their socio-economic superiors as natural, but also as a threat to productivity, security, and social order that could and must be mitigated or managed through regulation and intervention by authorities.

A Coerced Labor Force

Members of all these populations served as providers of not only vital but also, to significant though varying degrees, coerced economic and military labor. Slavery provides the most obvious and extreme examples of coercion, but British colonial and military projects throughout the Atlantic and beyond also relied on the coerced labor of non-slave populations. Convicts transported from Britain to overseas colonies and factories served as indentured

[3] For some important recent exceptions to this statement see Linebaugh and Rediker, *The Many-Headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic*; Christopher, *Slave Ship Sailors and Their Captive Cargoes, 1730-1807*; *A Merciless Place: The Fate of Britain's Convicts after the American Revolution*; Christopher, Pybus, and Rediker, *Many Middle Passages: Forced Migration and the Making of the Modern World*; Lepore, *New York Burning: Liberty, Slavery, and Conspiracy in Eighteenth-Century Manhattan*; Buckley, *The British Army in the West Indies: Society and the Military in the Revolutionary Age*; *Slaves in Red Coats: The British West India Regiments, 1795-1815*

servants and soldiers.[4] Work in the slave trade became so undesirable that slave ship captains became notorious for employing trickery and coercion to assemble crews for their ships, provoking resentment and sometimes-violent resistance from sailors, to say nothing of the resistances of enslaved people aboard slave ships and on plantations.[5] This also occurred in military and naval recruiting, though this is not to say that sailors and soldiers were always forced into service. Nonetheless, especially for the navy, most political and military authorities saw coercive means as indispensable for meeting manpower needs, despite criticisms from writers such as the famous naval physician, Gilbert Blane, who thought that impressment spread disease in the navy by bringing in recruits from dirty, unhealthy environments.[6] Naval vessels routinely patrolled the approaches to British ports, waiting for returning merchant ships from which to remove sailors for involuntary naval service. On shore, armed press gangs rounded up involuntary recruits. Britain's poor and laboring people remained subject to coercion in joining the armed forces throughout the eighteenth and early nineteenth centuries.[7]

The susceptibility to coercion that all these groups to varying degrees shared extended well beyond the slave trade, impressment, and other means of labor recruitment. For example, British voluntary hospitals for the poor and plantation hospitals achieved widespread association with prisons, their similar institutional regimes and health conditions causing reform groups and

[4] For example, concerning British convicts, mostly serving as soldiers, in West Africa, see Christopher, *A Merciless Place: The Fate of Britain's Convicts after the American Revolution*.

[5] Rediker, *The Slave Ship: A Human History*, 137-39, 200-02, 53-59.

[6] Gilbert Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy* (n.p., 1780), 8-9, 11. See also Trotter, *Medicina Nautica*, I, 45-46.

[7] There is a considerable literature on this topic. For two recent examples, see Nicholas Rogers, *The Press Gang: Naval Impressment and Its Opponents in Georgian Britain* (London and New York: Continuum, 2007); Denver Brunsman, *The Evil Necessity: British Naval Impressment in the Eighteenth-Century Atlantic World* (Charolottesville and London: University of Virginia Press, 2013). For an influential work that downplays the role of coercion in recruiting and managing the navy, as well as the degree of antagonism or tension between officers and common sailors, see N.A.M. Rodger, *The Wooden World: An Anatomy of the Georgian Navy* (New York and London: W.W. Norton & Company, 1986).

physicians to examine them in the same frame of reference.[8] Plantation hospitals, in fact, often doubled as jails, and one medical manual suggested that overseers should lock patients, prisoners, and nurses in the hospital at night and that the windows should have bars.[9] For military and naval hospitals, concerns about patient management, and especially escape, prompted strict regulations governing entry and exit, calls for more guards, and attention to making walls around hospitals more effective barriers to patients and visitors. Largely to reduce desertion, but also to regularize conditions for managing health, navy regulations stipulated that patients remain aboard ships unless it was critical to send them to hospitals ashore. Finally, members of all of these groups, most especially slaves, were subject to harsh, even brutal, physical punishments.

Based largely on such similarities, contemporary observers in Britain and its colonies compared military and naval personnel, slaves, and the urban poor, placing them in a common frame of reference as coerced subaltern populations. Proslavery writers favorably compared the conditions of slaves to those of the British poor and sailors and soldiers. The famous planter, William Beckford, wrote that climate and custom made slaves' "real work" in Jamaica "not so violent, nor continued so long in the day without relaxation, as that of the peasants in England." "Their exertions out of crop," he wrote, "are seldom required for more than thirteen hours in the

[8] For example, see *An Account of the Prisons, Houses of Correction, and Hospitals in London and Westminster. Taken from a Late Publication of John Howard, Esq. F.R.S. By Permission of the Author. To Which Is Prefixed, an Introduction, Stating the Acts Lately Passed for Improving the Prisons of This Kingdom. The Good Effects Which Have Resulted from Those Acts, Where They Have Been Carried into Execution. The Abuses Which Still Continue Where They Have Been Neglected and the Means by Which Those Abuses May Most Effectually Be Corrected.*, (London: The Society lately instituted for giving Effect to his Majesty's Proclamation against Vice and Immorality, 1789), 188-89; Benjamin Moseley, *A Treatise on Sugar* (London, 1779).

[9] [Collins,] *Practical Rules for the Management and Medical Treatment of Negro Slaves*, 219-20, 229. See also Barbara Bush, *Slave Women in Caribbean Society, 1650-1838* (Bloomington: Indiana University Press, 1990), 136; Sheridan, *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680-1834*, 269-70.

day."[10] According to one work from 1790, punishment by hundreds of lashes for British sailors and soldiers "infinitely exceeds, in severity, any inflicted on a negro in the West-Indies, except for the most atrocious crimes, and for the commission of which the sailor or soldier would here be hanged!" This sort of claim is widespread in proslavery sources from the period, and it frequently provides the foundation for suggestions that abolitionists redirect their attention toward improving conditions for British soldiers, sailors, and working people.[11] An unpublished 1788 book manuscript attributed to a minister in Jamaica further dissolves the distinctions between such low-status laboring populations. According to this source, "Freedom & Slavery, Liberty & Bondage are meer [*sic*] Comparative terms." It further states, "Servitudes are all Purchases—and tho the Expression may displease an idle Republican Disposition, they are all of them Slaves, tho in different degrees."[12]

The self-serving nature of such comparisons by planters' and their allies is clear; these comparisons functioned as rhetorical devices in defenses of slavery. They simultaneously aimed to uphold differences justifying the enslavement of black people and to minimize differences

[10] William Beckford, *A Descriptive Account of the Island of Jamaica...Also Observations and Reflections Upon What Would Probably Be the Consequences of an Abolition of the Slave-Trade, and the Emancipation of the Slaves*, 2 vols., vol. I (London: T. and J. Egerton, 1790), 66-7; also ibid., II: 381. For other examples, see Thomas Atwood, *The History of the Island of Dominica. Containing a Description of Its Situation, Extent, Climate...* (London: J. Johnson, 1791), 256; Robert Thomas, *Medical Advice to the Inhabitants of Warm Climates, of the Domestic Treatment of All the Diseases Incidental Therein...* (London: J. Johnson, J. Strahan, and W. Richardson, 1790), xiii; James Grainger, *The Sugar-Cane: A Poem. In Four Books...* (London, 1766), 127-28.

[11] A Gentleman, *Strictures on the Slave Trade, and Their Manner of Treatment in the West-India Islands: In a Letter to the Right Hon. William Pitt, in Opposition to the Exertions Now Making in the House of Commons, for an Abolition Thereof, by Mr. Wilberforce.* (London, 1790), 14-15, 37-38. See also BL Add MSS 12416, [James Knight, "The Naturall, Morall and Political History of Jamaica: and the Territories depending; from the Earliest account of time to the year 1742," vol. 2], ff. 180v-181v, 184r-185r; BL Add MS 38416, Liverpool Papers Vol. CCXXVII, Paper received from Lord Rodney, March 1788, ff. 72v-73r; Thomas, *Medical Advice to the Inhabitants of Warm Climates*, xv-xvi; Beckford, *A Descriptive Account of the Island of Jamaica*, I, 134; ibid., II: 381, 83.

[12] BL Add MSS 12439, An Inhabitant of Jamaica [attributed to "The Rev.d Doctor Lindsay, Rector of St. Katharine's in tht Island"], "A Few Conjectural Considerations upon the Creation of the Humane Race. Occasioned by the Present British Quixottical Rage of setting the Slaves from Africa at Liberty" (St. Jago de la Vega, July 23, 1788) ff. 11r, 15v.

between the conditions, labor, and status of slaves and of free laborers in Europe. Even though these comparisons are untrustworthy as evidence for the conditions and lived experiences of slaves, their frequent use suggests that they must have seemed to proslavery writers as potentially legible to readers. And, indeed, they were to a degree legible, though not necessarily convincing. Abolitionists also made comparisons between the conditions of slaves and the free working poor in Britain and Ireland.[13] In other words, people on both sides of the issue viewed comparisons between slaves, free working people in Britain, and sailors and soldiers in the British armed forces as appropriate. Despite the differences between these populations, in repeatedly making such comparisons, British and colonial commentators considered these populations within the same basic frame of reference.

This consideration of slaves, poor whites in Britain and the colonies, sailors, and soldiers within the broad category of the laboring or lower classes extended beyond comparison and analogy. Writers on the West Indies such as William Beckford and Edward Long denounced the bad example that "the lower classes of white people" set for slaves.[14] The underlying assumption for such statements was that, as members of the lower classes, enslaved black people and poor white people associated with each other to a significant extent. Social, political, and military authorities viewed members of different subaltern groups as similar enough that they would be inclined to combine with one another in Britain and abroad, threatening property and social

[13] For example, although Leonard Gillespie deplored slaves' conditions, he compared them favorably in his journal to those of the Irish peasantry. See TNA: PRO ADM 101/102/12, 14 Dec. 1802. Earlier, in the 1740s, Edward Trelawny wrote to Henry Pelham, in London, that he had written "some loose thoughts...for abolishing slavery, & putting the negroes upon some such foot as the ancient Villains [*sic*] of England were." NLJ, Trelawny to Pelham, 27 May 1741, p. 66.

[14] Edward Long, *The History of Jamaica*, 3 vols., vol. II (London, 1774), 289; Beckford, *A Descriptive Account of the Island of Jamaica*, I, 118; For the quote, see ibid., II: 380.

order.[15] A variety of printed and manuscript sources show authorities' concerns about mingling across all these groups. For example, an 1802 letter from London to Jamaica's governor encouraged efforts to increase Jamaica's white population by recruiting settlers from the ranks of discharged soldiers. Yet, the letter also noted that such efforts would become counterproductive without inducing European women to emigrate to Jamaica, as the former soldiers would otherwise naturally mix with black women, increasing the mixed race population. In this case, the letter suggested sending reformed prostitutes with certificates of good health to Jamaica as a means of governance through population engineering.[16] This and similar earlier plans echoed William Petty's seventeenth-century scheme for sending English women to Ireland in the hope that they would marry Irish men and have children, creating a population loyal to English rule.[17] The obvious difference was that in the Jamaican case, the aim was to manipulate ratios of white women to white men in order to prevent changes in the character of the population. In 1798, government officials in London communicated to the Jamaican Assembly plans to send a force of 1200-1400 soldiers "to be settled in the interior parts of the Island" following five-year enlistments. The soldiers would receive land grants in Jamaica after being discharged from service, a plan the Assembly supported. The Assembly's agent responded that the plans should proceed "without delay," and emphasized "that the Wives and families of such non commissioned Officers & privates as are married should accompany" the soldiers.[18]

[15] See Linebaugh and Rediker, *The Many-Headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic*; Lepore, *New York Burning: Liberty, Slavery, and Conspiracy in Eighteenth-Century Manhattan*.

[16] NLJ, MS 72, Box 2, John Sullivan (Downing Street) to Major General Nugent, No. 33, 1 Dec. 1802

[17] McCormick, *William Petty and the Ambitions of Political Arithmetic* 11.

[18] JA, 1B/5/14/2, Duke of Portland to Sewell, 20 April 1798; Sewell to Portland, 7 May 1798.

Despite such aspirations to maintain differences between populations, their membership overlapped. The army and navy had relied on the labor support of slaves from at least the early eighteenth century on, if not earlier. During the Seven Years' War, the governor of Jamaica, William Henry Lyttleton, received orders to raise 2,000 slaves for service in the attack on Havana. It also became standard practice continuously to keep groups of slaves attached as laborers to army units in Jamaica.[19] In the late 1730s, the navy's agents in Jamaica wrote to the Navy Board mentioning the labor of black slaves in the navy yard at Port Royal.[20] Keeping the slaves in subjection and the plantocratic regime secure, then, depended on the military labor of slaves whose presence added to the security threats that provided most of the reason for a large military presence. Further, the inclusion of slaves in military populations meant that managing those populations involved managing slaves.

Nor did the composition of military populations differ entirely from the civilian population in Britain. Although the armed forces consisted overwhelmingly of adult men, sources from the period abound with references to women and children with the army and navy. These references are often fleeting, yet women with the army, and on naval vessels, were not simply "camp followers" to whose lives and deaths commanders gave little thought. They filled important roles, and the need to manage their health figured into the management of military and naval populations more generally. Regimental establishments included set numbers of women, even overseas and in the field, and accounts of the health and mortality of women and children

[19] TNA: PRO CO 137/32, W.H. Lyttleton to [Board of Trade], 12 May 1762.

[20] TNA: PRO ADM 106/901, Jam. Crowcher & G. Bindle (Kingston, Jamaica) to the Navy Board, 11 Dec. 1738, f 4, 13 Oct. 1738, f 18, Bindle to Sir Jacob Acworth, 17 Aug. 1738, f 19, Bindle to the Navy Board, 8 Nov. 1738, f 20.

appeared in regimental returns and medical reports.[21] In the case of an epidemic aboard troop transports in 1794, one doctor identified crowding and improperly managing women in childbirth as major contributors to the epidemic.[22] Arrangements for troops going overseas during the Seven Years' War included providing food for women from sea provisions.[23] Likewise, army surgeons in Portugal during the Napoleonic Wars were officially enjoined to provide health care for women and children with the army.[24] There are many other such suggestions that women and children attached to or associated with the army made use of hospitals and other military medical provisions. The presence of women and children, and the inclusion of their health in the responsibilities of military doctors, points to additional overlaps between military and civilian populations and health.

None of this is to deny the differences between military personnel, the urban poor, and slaves. These groups plainly lived and worked under varying degrees of control and coercion. There was far more scope for authorities to exert control over people's lives on Jamaican sugar plantations and in the army and navy than in British civilian contexts. Most obviously, only slaves were legally property, and slave owners had nearly unchecked powers over them. Authorities in Britain and in the armed forces could be brutally coercive, but they had far less freedom to do so than did slave owners and overseers in relation to slaves. Nonetheless, as I have been arguing, significant commonalities existed between these populations, particularly in their

[21] For example, see TNA: PRO WO 26/23, Orders and Instructions for His Majesty's Royal Regiment of Fuziliers, Commanded by Lord Robert Bertie [signed Barrington, 21 March 1756], p. 61; *Journals of the House of Assembly* [Jamaica], Vol. VIII (Jamaica: Alexander Aikman, 1804), 253, 356, 424; NLJ, MS 2, Letterbook of Jacob Adolphus, Vol. I, Adolphus to McGrigor, 3 Sept. 1819, 22 Oct. 1819.

[22] TNA: PRO WO 1/896, Sir Jerome Fitz Patrick to Lord Geo. Lennox, No. 2 [n.d.], f. 14v/p. 32.

[23] One example is TNA: PRO WO 1/978, p. 91.

[24] WL, RAMC/210/3, [Observations re Regimental Hospitals and duties of the Brigade Surgeon, c. 1811-1823], sixth point in description of duties of the regimental surgeon.

composition and their interrelated roles as providers of essential coerced labor. Moreover, many contemporary observers noted connections and commonalities between laboring populations and the problems of managing them, even as they continued to draw distinctions between them, often sharply.

Problems of Managing Laboring Populations

The crucial military and economic labor members of these populations performed made managing their character, health, and numbers crucial to a wide range of authorities across the British Atlantic. In Britain, authorities focused largely on the lower classes, as the existence of a numerous laboring population, according to dominant conceptions, was vital to national wealth and power.[25] Such a population would supply workers for domestic economic enterprises and global trade. It would also provide sailors and soldiers to meet growing military needs, an especially pressing concern given the comparatively large populations of Britain's main rivals during this period. It was in this context that a range of authorities including "population theorists, political economists, and philanthropists began taking a special interest in reproduction for the first time," as well as in improving the health of the poor and working classes.[26] The aim was to preserve and augment a particularly "useful and numerous class of the community," or, in the words of a writer later in the period, "those classes, which...are the foundation of our strength, our wealth, and all the luxuries enjoyed by the opulent."[27]

[25] Rusnock, *Vital Accounts*, 5-6.

[26] Cody, *Birthing the Nation: Sex, Science, and the Conception of Eighteenth-Century Britons*, 16-17.

[27] J.C. Lettsom, *Of the Improvement of Medicine in London, on the Basis of Public Good*, 2nd ed. (London, 1775), 3-4; William Brooke, *The True Causes of Our Present Distress for Provisions; with a Natural, Easy, and Effectual Plan, for the Future Prevention of So Great a Calamity. With Some Hints Respecting the Absolute Necessity of an Encreased Population* (London: printed by C. Whittingham, 1800), 1, 31.

Threats to the health, reproduction, and character of the poor and working classes seemed especially concerning in this context. Urban growth depended largely on migration by members of the rural poor population. Unsurprisingly, then, although doctors and other commentators described urban areas generally as unhealthy, they focused on the unhealthiness of the poor. The concerns about "great manufacturing towns" and the "puny degenerate race of people, weak and sickly all their lives" examined in the preceding chapter applied overwhelmingly to the poor and laboring population.[28] A large body of medical works and social and political commentary claimed that city living in general, and servant work in particular—which a large proportion of the urban lower classes was engaged in—degraded morals, promoted improper behavior, and created physical weakness and effeminacy among men.[29] Anxieties about decreased work productivity combined here with those about the deleterious effects of luxury and urban growth on social order, health, and families. Cities and towns seemed to destroy the poor people they attracted in search of employment, but even the employment they provided appeared mostly sedentary. This supposedly created a population that was increasingly unaccustomed to difficult, though fundamentally healthy, labor.[30] In 1807, Thomas Trotter worried that Britain's population was not only changing, but that the deleterious characteristics it was acquiring from "enervating modes of living" would be inherited by subsequent generations, endangering national security.[31]

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[28] Buchan, *Domestic Medicine*, 34-35.

[29] A farmer, *An Inquiry into the Connection between the Present Price of Provisions, and the Size of Farms. With Remarks on Population as Affected Thereby. To Which Are Added, Proposals for Preventing Future Scarcity* (London: T. Cadell, 1773), 49-50. The piece then goes on to mitigate the problem, calling it a "necessary evil" attendant to the accumulation of wealth. For examples of concern about effiminacy, see notes 29-31 below, as well as Buchan, *Domestic Medicine*, 32-33.

[30] Jackson, *An Outline of the History and Cure of Fever*, 38.

[31] Thomas Trotter, *A View of the Nervous Temperament: Being a Practical Inquiry into the Increasing Prevalence, Prevention, and Treatment of Those Diseases Commonly Called Nervous, Bilious, Stomach and Liver Complaints; Indigestion; Low Spirits, Gout, &C.* (Newcastle, 1807), 148-50, quote on 49-50.

Robert Jackson went beyond predicting future military problems, arguing that British soldiers recruited as reinforcements for the disastrous St. Domingue campaign during the 1790s came mostly from "manufacturing towns," which made them weak, sickly, and dissolute: poor soldiers who died quickly, in other words.[32] These were all problems of individuals, but they achieved prominence during the eighteenth and early nineteenth centuries mainly as problems of poor and military populations that required management.

The health and numbers of Britain's urban poor were thus linked with those of military personnel as important concerns for social and political authorities. Britain was at war for most of the eighteenth century, and on an increasingly global scale. Related to this, British overseas colonial activities expanded, adding to the demands on the military and navy even during peacetime. As a result, the army and navy grew significantly, albeit unevenly, during the eighteenth century. Jamaica's garrison followed a broadly similar trajectory. White colonists' fear of insurrection made them increasingly see soldiers and sailors as crucial for Jamaica's security. This provoked escalating colonial demands from the 1730s on for a substantial British military presence. It also made the Assembly willing to continue footing much of the bill for that presence, and to pay extra subsidies to soldiers serving in Jamaica.[33] Six companies of soldiers in the 1730s increased to a regiment in 1745 and two regiments in 1758.[34] Fewer than 2,000 troops

[32] Jackson, *An Outline of the History and Cure of Fever*, 27-8.

[33] Andrew Jackson O'Shaughnessy, *An Empire Divided: The American Revolution and the British Caribbean* (Philadelphia: University of Pennsylvania Press, 2000), 43. That said, payment for soldiers' subsistence repeatedly became a point of friction between the Assembly, Council, governor, and officials in London.

[34] *An Empire Divided: The American Revolution and the British Caribbean* (Philadelphia: University of Pennsylvania Press, 2000), 44.

spread across the West Indies or on their way there in early 1775 increased to roughly 17,000 troops in Jamaica alone by 1802.[35]

Yet, like white colonists, British soldiers and sailors fell to disease at appallingly high rates in the West Indies.[36] Robert Jackson observed that the West Indian climate was "particularly destructive" to the British military and navy.[37] Admiral Hosier's 1726 expedition to the Caribbean lost 4,000 men to disease, out of a total strength of 4,750.[38] Likewise, the failed attempt to take the Spanish city of Cartagena in 1741 was a disaster that saw the British forces racked by disease. Garrison duty in Jamaica also exacted a heavy toll in terms of sickness and death. For example, during the three months from August 1 to October 31, 1780, over a quarter of the roughly 4,000 troops in Jamaica died from disease, and an even larger number fell sick.[39] Doctor Robert Hunter reported that in less than four years during the American Revolutionary War, 5,250 soldiers died in Jamaica, none of them in combat. Eighteenth- and early nineteenth-century observers noted that the arrival of large numbers of troops occasioned disease epidemics.[40] This resulted in even higher death rates that brought a need for more troops, creating an essentially self-perpetuating cycle. Famous navy physician James Lind's suggestion that stationing convicts on the West African coast would preserve "useful subjects" referred to fears that the human toll of military and naval activities abroad would drain Britain of its

[35] Piers MacKesy, *The War for America, 1775-1783* (Lincoln: University of Nebraska Press, 1993), 525. Kathleen Wilson, "The Performance of Freedom: Maroons and the Colonial Order in Eighteenth-Century Jamaica and the Atlantic Sound," *The William and Mary Quarterly* Third Series, Vol. LXVI, no. 1 (2009): 79.

[36] For an examination of the geopolitical, imperial, and military significance of this situation and the "differential immunity" of black people and white people in the West Indies, see McNeill, *Mosquito Empires*.

[37] Jackson, *A Treatise on the Fevers of Jamaica*, 255.

[38] Rodger, *The Wooden World: An Anatomy of the Georgian Navy*, 98.

[39] TNA: PRO CO 137/78/37, ff 318r-320a, Dr. Powell to Lord Germain, 2 Sept. 1780; Sir Neil Cantlie, *A History of the Army Medical Department*, 2 vols., vol. 1 (Edinburgh and London: Churchill Livingstone, 1974), 163.

[40] For example, see NLJ, MS 2, Jacob Adolphus to Sir James McGrigor, 3 Sept. 1819, pp. 82-3.

laboring people, thus disrupting social order and decreasing economic productivity and military security at home.[41] The experiment with actually sending convicts to West Africa during the 1770s and 1780s ended so badly—among other things, the convicts quickly sickened and died—that authorities soon abandoned it.[42] In a 1781 letter to Jamaica's governor concerning high death rates among soldiers there, Lord George Germain claimed "such a destruction of Men cannot be borne by this Country [Britain]."[43]

Given the importance of soldiers and sailors in maintaining security, this situation alarmed contemporary observers on both sides of the Atlantic. In a March 1707 letter to the Council of Trade and Plantations, Governor Handasyd claimed "no man will list to come to Jamaica, so that there is no way I can think of to recruit my Regiment but by draughts out of others." Consequently, according to Handasyd, his garrison was seriously under strength, leaving Jamaica at risk of invasion.[44] Army doctor Hector McLean made a similar observation ninety years later in an essay on British military operations in St. Domingue: "The dread of its [the endemic "remittent" fever] being infectious, has injured the recruiting service, by terrifying young men from enlisting in any West India regiment."[45] An 1805 report by the Board of Health offered a similar conclusion; the loss of approximately 60,000 men in the West Indies during the 1790s created such "dread" amongst prospective soldiers that recruitment required a change in

[41] Lind, *An Essay on Diseases Incidental to Europeans in Hot Climates*, 242-4.

[42] Christopher, *A Merciless Place: The Fate of Britain's Convicts after the American Revolution*. It is worth noting that many of the convicts were sent as soldiers to garrison British slave trading forts.

[43] TNA: PRO CO 137/80, No. 35, George Germain to Gov. Dalling, 7 March 1781, f 1v.

[44] TNA: PRO CO 137/7, No. 42, Gov. Handasyd to the Council of Trade and Plantations, Mar. 8, 1707.

[45] McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, ix.

enlistment terms.[46] Furthermore, McLean argued, this fear increased the susceptibility to disease of those soldiers who actually ended up in the West Indies, further reducing military effectiveness.[47] Another former army doctor suggested that if Jamaica had been attacked in 1780 or 1781, it would likely have fallen, due to the garrison's weakness from disease.[48]

In the eyes of several prominent commentators, the weaknesses of Britain's military in the region were exacerbated by British soldiers and sailors having less resistance to the effects of the climate than their European adversaries had.[49] Yet, the larger and more important differences appeared to lie between Europeans, on the one hand, and Africans and black creoles, on the other. McLean claimed that warfare could only be unequal

> between an European army and a people inured to the climate. The European soldier, languid and relaxed, from the excessive heat, had to contend with an enemy, inferior indeed in the art of war, but formidable from a frame of body which was adapted to the climate, and derived vigour and activity from that influence of the sun, by which foreign troops were enervated and exhausted. In a warm climate, the European soldier required many comforts; but the naked Brigand climbs the tree for his daily food, and sleeps in perfect security under the broad canopy of the sky...

According to McLean, the only ways to overcome such an enemy were by treaty or employing "an army of negroes" with European training and leadership.[50] This statement accords with arguments proclaiming the unsuitability of whites compared to blacks for manual labor

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[46] TNA: PRO PC 1/3637, The Fourth Report of the Board of Health, On the Means of preserving Health in the Colonies, 5 July 1805, p 1.

[47] McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 12. Jacob Adolphus later expressed the same sentiment. See NLJ, MS 2, J.A., "Substance of a Report sent to Rear Admiral Sir Home Popham," [n.d., but c. 1820], p. 172.

[48] John Bell, *An Inquiry into the Causes Which Produce, and the Means of Preventing Diseases among British Officers, Soldiers, and Others in the West Indies...* (London, 1791), xi, xiii.

[49] For example, see Jackson, *A Treatise on the Fevers of Jamaica*, 258; McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 14-15.

[50] *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 1-2.

throughout the late eighteenth-century West Indies and the coast of Africa.[51] Since much of the job of soldiers consisted of keeping black slaves in subjection, this inequality was threatening even during peacetime. The formation of military units comprised of slaves during the late eighteenth and early nineteenth centuries arose partly from this situation, and it heightened planters' security concerns.[52]

These apparently differing abilities of populations to survive, and a growing conviction among government officials over the course of the century that Britain's laboring population needed preservation, inspired strategies for minimizing white sailors and soldiers' exposures to tropical environments. For example, James Lind argued that Europeans, especially British soldiers and sailors, should not be made to cut wood in hot climates. According to Lind, "the extreme danger of this task would even render it a proper punishment for such convicts as were saved from the gallows for this purpose. If the purchasing of negroes on the coast of Guinea can be justified, it must be from the absolute necessity of employing them in such services as this is."[53] This statement represents the majority view amongst doctors at the time, although some argued that British soldiers had to undertake strenuous exercise in hot climates, in order to acclimate their bodies and grow hardy.[54] The Admiralty's orders to the captain of a ship bound for Africa and Barbados in 1744 included regulations "for the better preservation of the Health" of the crew. These emphasized control over exposure to the coastal environment in general, and

[51] In addition to the many examples already provided in Chapter 1, see Thomas, *Medical Advice to the Inhabitants of Warm Climates*, xx-xxi.

[52] According to Sir George Nugent, Jamaica's governor between 1801 and 1806, "nothing but the Dread of the black Corps, employed as a part of their Defence, can, I am confident induce them [the planters] to consent to the Wishes & Expectations of our Government." HL, STG Box 44, Nugent to Buckingham, 8 Aug. 1802.

[53] Lind, *An Essay on Diseases Incidental to Europeans in Hot Climates*, 143.

[54] For a forceful expression of this view, see Jackson, *An Outline of the History and Cure of Fever*, 75-6, 85.

more particularly over the movements of crew members between ship and shore. The captain was "Not to lye [*sic*] Twenty four hours in any River," and not to let any of the crew to sleep ashore, drink palm wine, "or do any Work ashore, which the Natives can be hired to do for a small Reward."[55]

Increasing pessimism by the end of the eighteenth century about keeping British sailors and soldiers alive in tropical environments led government authorities to rely more and more on enslaved people for military labor.[56] The aim was twofold: to replace the dead and to preserve the living white population by limiting its exposure to unhealthy environments. As early as 1741, Governor Edward Trelawny suggested buying slaves to serve as soldiers. "Tho' such things so much out of the way are liable to ridicule," he wrote to London, "yet I wish it had been done before, our men are so thinned now that it behoves [*sic*] us to think of all means to piece out an army, tho' it be wth [*sic*] rags of all colours, & save our Britains [*sic*] as much as possible."[57] In 1804, the under-secretary of state for war and the colonies, Edward Cooke, expressed frustration at colonists' resistance to regiments of black soldiers being stationed in Jamaica. According to Cooke, this resistance perpetuated an unaffordable drain on British resources, both human and monetary. "The Planters," he wrote, "seem to think little of the Waste of British Blood which is necessary to be husbanded in order to be used for their Defence in other Parts of the Globe. 'Give us your best Troops: let them die as fast they please & let Britain pay all the loss & we

[55] HL, Pocock Papers, Box 4, PO 588, Admiralty to Pocock, 8 Jan. 1744.

[56] For the point about pessimism replacing optimism on this front over the late eighteenth and especially early nineteenth centuries, see Harrison, *Climates & Constitutions: Health, Race, Environment and British Imperialism in India, 1600-1850*; ""The Tender Frame of Man": Disease, Climate, and Racial Difference in India and the West Indies, 1760-1860."

[57] See NLJ, MS 306, Pelham Collection, Trelawny to Pelham, 17 May 1741.

shall lie contented.'"[58] Harsh language aside, Cooke simply rearticulated a major part of the reasoning behind official government policy from the mid-1790s on. High mortality rates among European soldiers in the West Indies made Jamaica's security and, indirectly, Britain's military success in general, dependent on the employment of black soldiers in large numbers.[59] As the Jamaican Assembly's agent in London reported in 1797, the government's position was that maintaining a mixed force of black and white soldiers "has been found the best, or only, means of preserving the Health of such white Troops as Government is able to furnish in that quarter."[60] As historian Roger Norman Buckley has pointed out, from 1796 through Parliament's abolition of British involvement in the slave trade, the government bought at least 13,000 slaves to serve as soldiers, for the most part directly off ships from Africa. Starting in 1808, slaves "liberated" by the Royal Navy from illegal slaving vessels could be pressed by authorities into service in the British armed forces.[61]

In contrast, as the preceding chapter noted, for much of the eighteenth century, the main problem planters and colonial officials saw with Jamaica's enslaved black population was that it was too large compared to the white population. Planters could, and did, easily purchase more slaves through the Atlantic slave trade to make up for those who died.[62] Nonetheless, they and others recognized it as a problem for social order and profit creation that the enslaved population

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[58] NLJ, MS 72, Nugent Papers, Box 3, E. Cooke to [Nugent], No. 76 (Private & Confidential), 5 July 1804.

[59] For other examples, see TNA: PRO CO 137/98, Portland to the Earl of Balcarres, 10 Jan. 1797 [draft], Balcarres to Portland, 11 April 1797; HL, STG Box 44, G. Nugent to the Marquis of Buckingham, 25 May 1802; NLJ, MS 72, Nugent Papers, Box 3, Camden to Nugent, No. 80 (Private), 3 Aug. 1804; JA, 1B/5/26/1, Lord Castlereagh to the Duke of Manchester, No. 11, 14 Dec. 1808. For the same points in reference to the Bahamas, see TNA: PRO CO 137/119, (Downing Street) to Lt. Gen. Sir Eyre Coote, No. 8, 6 Aug. 1807, ff 99r-100v.

[60] JA, 1B/5/14/2, Robert Sewell to the [Jamaica] Committee of Correspondence, 31 July 1797, f. 70r.

[61] Buckley, *The British Army in the West Indies: Society and the Military in the Revolutionary Age*, 137, 41.

[62] Kenneth Morgan, "Slave Women and Reproduction in Jamaica, C. 1776-1834," *History* 91, no. 302 (April 2006): 231-2.

only increased through the slave trade from Africa. According to one late eighteenth-century estimate, after factoring out the slave trade, Jamaica's enslaved population decreased by an average of nearly 2.5% per year during the period from 1768 to 1787.[63] A printed work from 1789 claims, "experience has proved it to be impracticable" to maintain slave populations through natural increase, with only a few ungeneralizable exceptions.[64] Following Parliament's 1807 abolition of British involvement in the Atlantic slave trade, the black population of the British West Indies, incuding Jamaica, began a period of absolute decrease that lasted through the abolition of slavery and the ensuing apprenticeship period.[65]

Despite perceptions of black people as better able than whites to survive in tropical environments, acknowledgement of the problems of managing a population of enslaved laborers in the West Indies was widespread throughout the eighteenth century. Many observers, such as the anonymous author of a 1746 piece concerning Jamaica, remarked on the problem of "there being so few Children among the *English* Negroes."[66] Moreover, abolitionists and proslavery commentators alike noted that enslaved children in the West Indies suffered from disease at stunningly high rates.[67] In addition, despite the common view that black people were particularly suited to West Indian environments, it seemed clear that even slaves who survived childhood in the region or arrived as adults sickened and died in great numbers. A 1732 piece mainly

[63] BL Add MS 12431, ff. 219r-20r. This estimate cites the Poll-Tax rolls for its population figures, and attempts to account for the influence of especially high mortality rates during the 1780s.

[64] BL Add MS 12431, *Short Reasons Against the Abolition of the Slave Trade* (1789), ff. 221r-221v.

[65] B.W. Higman, *Slave Populations of the British Caribbean, 1807-1834* (Baltimore and London: The Johns Hopkins University Press, 1984), 72-3.

[66] *An Essay Concerning Slavery, and the Danger Jamaica Is Expos'd to from the Too Great Number of Slaves*, 34.

[67] For example, A Pennsylvanian, *An Address to the Inhabitants of the British Settlements in America, Upon Slave-Keeping* 2nd ed. (Philadelphia: John Dunlap, 1773), 40-3; A Gentleman, *Strictures on the Slave Trade*, 19-22; BL Add MS 12431, Short Reasons, f. 221v.

concerning planters' expences in Barbadoes and the Leeward Islands portrays high mortality rates as predictable: roughly 40% per year for new slaves and one in fifteen for seasoned slaves on average.[68]

Even during the first half of the century, prominent colonial observers felt compelled to explain the demographic situation with an aim to deflecting responsibility for it away from planters and overseers. Sir Hans Sloane, in the first (1707) volume of his famous *Voyage* claimed that planters' economic interests made them "take great care" to preserve the health of their servants, "both black and white."[69] In a book manuscript dated 1744, merchant James Knight made the same point, suggesting that charges of "Inhumanity and Cruelty of Planters to their Negroes" applied to only scattered individuals. Knight also pointed to laws passed in Jamaica for ensuring the welfare of slaves as evidence of colonists' attentiveness to this concern.[70] These arguments later became staples of proslavery writing, and they hint at colonists' long-running insecurity about the type of society they had created in Jamaica. Even before a coherent antislavery movement existed, they acknowledged Jamaica's demographic catastrophe in regard to the enslaved population as a major problem, and worked to diffuse responsibility for it, making it the fault of environment, labor, and slaves' character.

These goals and the demographic crisis underlying them became far more pressing for planters and their supporters during the second half of the eighteenth century and the early

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[68] An Inhabitant of one of His Majesty's Leward Caribbe Islands, *A Detection of the State and Situation of the Present Sugar Planters, of Barbadoes and the Leward Islands; with an Answer to This Query, Why Does Not England, or Her Sugar Islands, or Both, Make and Settle More Sugar Colonies in the West-Indies?* (London: J. Wilford, 1732), 44.

[69] Hans Sloane, *A Voyage to the Islands Madera, Barbados, Nieves, S. Christophers and Jamaica...With Some Relations Concerning the Neighbouring Continent, and Islands of America*, 2 vols., vol. I (London, 1707), cxxii.

[70] BL Add MS 12416, [James Knight, The Naturall, Morall and Political History of Jamaica: and the Territories depending; from the Earliest account of time to the year 1742, vol. 2], ff. 177r-181r.

nineteenth century. The first West Indian medical manual focusing on the health of slaves, James Grainger's *An Essay on the More Common West Indian Diseases,* appeared in 1764. This and many subsequent works blended humanitarian concern with economic motivations, aiming to increase the slave population's size, efficiency, and profit creation. As sentiment against slavery and the slave trade coalesced in Britain from the 1770s and 1780s, this literature became increasingly prominent. Abolitionists siezed on the enslaved population's low birth and high death rates in their attacks on slavery and the planters. As early as 1751, Benjamin Franklin had characterized the British sugar colonies as examples of poor government, due partly to their failure naturally to reproduce their populations, including the enslaved population.[71] Anti-slavery activists in the 1780s and after employed similar lines of attack to argue that colonies like Jamaica were cruel and regressive, and therefore required intervention from London to end the slave trade and set them on the track to civilization. Jamaica, in this view, perpetuated at best a backward, degenerate parody of British society.

Planters and their supporters realized the danger of this view to them, both economically and socially. In addition to threatening their economic wellbeing, it struck at their claims to benefit the nation, their status, and even their pretensions to Britishness. As we saw in Chapter 1, dominant explanations in eighteenth-century Britain for human variation connected mind, body, and environment; "human characteristics…were formed over time by external forces working on the body."[72] This conception, combined with increasing British contact with and presence in a variety of oversees environments, contributed to the fears of degeneration and "the fungibility of the national identity and virtue of the national character" that Kathleen Wilson argues permeated

[71] Benjamin Franklin, "Observations Concerning the Increase of Mankind, Peopling of Countries, etc." (1751).

[72] Wheeler, *The Complexion of Race: Categories of Difference in Eighteenth-Century British Culture*, 21-22.

British conceptions of national identity during this period.[73] Failure to establish a self-sustaining white settler population further complicated the portrayal of Jamacia as a recognizably British colonial society, especially in comparison to Britain's North American colonies, which had self-sustaining populations by the early eighteenth century. The persistently high mortality and morbidity and low birthrates of the enslaved black population in Jamaica added to the difficulty. Black slaves comprised the overwhelming majority of Jamaica's population, and their labor stood at the foundation of the colony's social order and value to Britain, and of white colonists' and planters' wealth and status. The apparent failure of the plantocratic regime properly to manage the slave poplation undercut the legitimacy of all these things. Planters and their supporters attempted both to portray slavery as humane and progressive and to prepare for a time when they could no longer rely on the Atlantic slave trade to maintain the slave population.

Both these goals created interest in encouraging the natural reproduction of the enslaved population. From the 1780s and especially 1790s on, there is evidence of increasing concern among planters to encourage births on their plantations. According to one early nineteenth-century physician, in a statement that catches some of the concern about children evident in domestic British sources, "In the present state of our colonies, it becomes an object of the first consideration to encourage the rearing of negro children."[74] Another contemporary physician wrote in an influential medical manual that every Jamaican estate should have a properly trained midwife; this was a prescriptive work, but it does seem that plantations often had midwives.[75]

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[73] Wilson, *The Island Race: Englishness, Empire and Gender in the Eighteenth Century*, 6.

[74] Williamson, *Medical and Miscellaneous Observations*, I, ix.

[75] A Professional Planter [David Collins], *Practical Rules for the Management and Medical Treatment of Negro Slaves, in the Sugar Colonies* (London: Printed by J. Barfield, 1803), 159. In addition to plantation inventories listing enslaved midwives, one plantation manager valued the death of an elderly midwife "almost equally" to the death of her son, "a very fine promising young negro." Oxford, Bodleian Library, MS. Clar. Dep. c. 357, Chas. Rowe to Jos. Foster Barham, 2 Nov. 1784.

Correspondence between plantation owners and managers provides evidence of similar concern about managing birthrates and the composition of the enslaved population during the late eighteenth century. As early as 1775, the manager of one Jamaican estate assured his employer that "the breeding women" on the estate would receive "great Care."[76] A later letter from the Duke of Chandos to his estate manager shows the owners' continuing concern about the topic, stating "it is a matter of much consequence that the Breeding Women, & Young Children should be taken great Care of." The letter then requests detailed information about slaves born on the estate.[77] The owner of another Jamaican estate repeatedly directed his estate manager in the early 1790s to purchase "young Girls & Wenches" as a means for making the estate's slave population self-sustaining.[78] In one letter, this owner noted that the prospect of the slave trade's abolition made this project of engineering the enslaved population especially pressing.[79]

This last example suggests another attempt, like that mentioned earlier concerning soldiers and their families, at governing through manipulating the ratios of men to women. Planters and their supporters commonly argued during the late eighteenth and early nineteenth centuries that the enslaved population's disproportionate number of men played a major role in preventing it from becoming self-sustaining. Planters wrote of efforts to minimize the disparity between the number of enslaved men and women as a means for creating stability and encouraging births. According to the Duke of Chandos, writing to his attorney in Jamaica in 1789, "From every thing I have read or heard concerning stocking a plantation with Slaves, I am

[76] NLJ, MS 29A, Wm. Ballard to [Roger Hope Elletson], 28 Oct. 1775.

[77] HL, STB Box 27, [Duke of Chandos] to Robert Hibbert, 1 April 1788. See also [Chandos] to Hibbert, 5 Aug. 1788; [Chandos] to Hibbert, 5 May 1789; HL, STB Box 25, Edward East to the Duchess of Chandos, 23 Sept. 1778; HL, STB Box 26, Pool to the Duchess of Chandos, 10 Sept. 1778.

[78] JA, 4/45/66 (Tweedie Estate Records, Vol. 66), George Turner to Mr. M.D. Hodgson, 8 Oct. 1791, p. 18; Turner to Hodgson, 1 June 1792, p. 91. For the quote, see Turner to [Hodgson], 9 Nov. 1791, p. 33.

[79] JA, 4/45/66, Turner to Hodgson, 16 April 1792, pp. 70-76

convinced it is true wisdom to have attention to the equality as far as possible of the Sexes."[80] Less than two years earlier, however, Chandos had written to his attorney that men were most needed on the estate. The attorney agreed.[81] Yet, the plantation's list of slaves dated 1 January 1788—under six months after the letters stating the need for more men—shows 176 men and boys and 175 women and girls.[82] It is unclear exactly what "equality as far as possible of the Sexes" meant for Chandos, though it probably reflected a general preference for a male majority for labor on sugar plantations.[83]

Slavery supporters during the late eighteenth century argued that slave traders, both African and European, not planters, were responsible for the imbalanced sex ratio, but the planters were only weakly committed to addressing the problem.[84] In 1796, Jamaica's agent in London wrote to the Jamaica Committee of Correspondence about possible restrictions on the Atlantic slave trade. The agent suggested that setting age restrictions on the trade might be acceptable, "but, I should not, I confess, approve of either limitting [*sic*] the Term of Importation, or even restricting the Sexes to an Equality."[85] The Committee agreed.[86] This

[80] HL, STB Box 27, [Chandos] to Hibbert, 5 May 1789.

[81] HL, STB Box 27, [Chandos] to [Hibbert], 31 July 1787; STB Box 26, Hibbert to Chandos, 27 Sept. 1787.

[82] HL, Stowe West Indies Box 3, "A List of Negroes on Hope Plantation in St. Andrews taken the 1st January 1788."

[83] For the point that labor demand in the West Indies and antebellum Louisiana's sugar economies played the main role in creating heavily imbalanced sex ratios, see Michael Tadman, "The Demographic Cost of Sugar: Debates on Slave Societies and Natural Increase in the Americas," *The American Historical Review* 105, no. 5 (Dec. 2000).

[84] For examples of this charge against slave traders, see A Jamaica Planter, *Notes on the Two Reports from the Committee of the Honourable House of Assembly of Jamaica, Appointed to Examine into, and to Report to the House, the Allegations and Charges...On the Subject of the Slave Trade, and the Treatment of the Negroes, &C. &C. &C.* (London, 1789), 15-6, 37; BL Add MS 12431, Short Reasons, f. 221v.

[85] JA 1B/5/14/2, Sewell to [Jamaica] Committee of Correspondence, 31 March 1796.

resistance to Parliament legislating ratios of men to women in the slave trade contrasts with the position of the committee appointed by the Assembly to report on the state of slavery and the slave trade eight years earlier, in 1788. The committee had supported "compelling the said ships to transport an equal number of both sexes."[87]

The apparent unwillingness of the planters to take effective actions for managing the enslaved population added to metropolitan and colonial government officials' concerns about military security. According to Edward Cooke, the example of St. Domingue emphasized the need to cultivate among slaves happiness and loyalty to their masters. He claimed the best way to accomplish this and, consequently, to avoid revolution was for planters to devote more attention to ensuring that the enslaved population became self-sustaining. "The Reciprocal Feelings," he stated, were greater between masters and native-born slaves than between masters and slaves directly from Africa. "The extinction therefore of that Class of Slaves on whose Fidelity there is no reason to rely, and the propagation of those alone who by the Habits of Infancy, Childhood, and Education are susceptible of attachment," presents the best chance of security.[88] In this abolitionist view, planters' failure to manage effectively the health and reproduction of the slave population helped create a situation requiring large garrisons, exacerbating the already significant strains on Britain's military, fiscal, and population resources.

Similarly Vulnerable Populations

Despite the apparent differences between the problems discussed above, among the commonalities authorities saw between subaltern groups across the Atlantic World was a similar

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[86] JA 1B/5/13/1, Committee of Correspondence to Sewell, No. 3, 15 Aug. 1796.

[87] *Journals of the Assembly,* Vol. 8, p. 410.

[88] NLJ, MS 72, Nugent Papers, Box 3, E. Cooke to [Nugent], No. 76 (Private & Confidential), 5 July 1804.

vulnerability to threats to health, reproduction, and character. Social and political authorities throughout Britain and its colonies focused on subaltern populations not as only especially important, but also as especially vulnerable. Differences in life expectancy and health and fitness more generally seemed apparent between subaltern populations and their socio-economic superiors throughout the Atlantic. In Britain, commentators noted it as a matter of course that members of the lower classes had shorter life expectancies than did the rich and middling sort. For example, in a piece focusing on Britain, William Black generalized: "It is however probable, from observation and analogy, that the indigent and laborious class of mankind do not attain to longevity in the same proportion with the middling and more opulent ranks."[89] Writing in the early 1830s, Sir Gilbert Blane expressed the same view. Although he held up "increased longevity" in Britain as proof of ongoing societal progress, he acknowledged that it "applied only to those of better condition." According to Blane, poor diets and, more importantly, inadequate housing and clothing resulted in life-shortening diseases among the lower classes.[90]

As this suggests, acknowledgement of inequality of health between the rich and the poor went beyond the topic of life expectancy to include health more generally. Often-inadequate diets, unhealthy living and working environments, and limited access to professional medical care made poor people in Britain seem particularly vulnerable to health threats. Commentators recognized this as a problem for individuals, but more importantly as a problem characteristic of a large socio-economic group and, thus, as a problem for the entire population. The famous Quaker physician, John Coakley Lettsom, claimed: "The poor, whose circumstances often compel them to make use of the first means of aid which specious pretenders offer them,

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[89] Black, *A Comparative View of the Mortality of the Human Species, at All Ages; and of the Diseases and Casualties by Which They Are Destroyed or Annoyed. Illustrated with Charts and Tables* 43.

[90] Blane, *Reflections on the Present Crisis on Publick Affairs*, 68-69.

frequently fall victims to ignorance and quackery, and thereby for ever impair their health; to the injury of their families, and the loss of the community."[91] A 1747 piece in *The Gentleman's Magazine* on the founding of a smallpox hospital in Middlesex explains the hospital's focus on the poor:

> How often are the poor, tho' useful members of society, with their languishing families, reduced to the utmost difficulty and distress! Seiz'd with this distemper, they are frequently obliged, some to quit their service and their maintenance, others miserably confin'd to a slender habitation, communicate the distemper to their helpless children: For whither can these poor wretched go? The doors of public hospitals are shut against them.[92]

The combination of poverty and sickness, in other words, created a positive feedback loop that spiraled out from individuals to threaten whole families and possibly the population in general. According to William Brooke, writing in 1800, widespread poverty and the high cost of provisions created a situation in which "one half the children of the poor in London, and many of our large towns, actually die for want of proper food."[93]

For social, political, and medical authorities, such precariousness was characteristic of the lives of not only the British poor, but also military personnel and slaves. Thomas Malthus famously held as a universal rule that an increase in births among the lower classes would eventually make population growth outstrip the food supply, leading to misery and want.[94] He and other authors also attributed ill health, weakness, and stunted development of poor children

[91] Lettsom, *Of the Improvement of Medicine in London*, 19-20, quote on 37.

[92] "Of the Country Hospital for the SMALL POX," *The Gentleman's Magazine,* Vol. 17 (London, June 1747), 270.

[93] Brooke, *The True Causes of Our Present Distress for Provisions*, 25-26.

[94] Malthus, *An Essay on the Principle of Population, as It Affects the Future Improvement of Society. With Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers.*

in Britain to their parents' poverty.[95] Buchan stated that lack of money encouraged impoverished parents to feed their children unhealthy diets. Further, he claimed it made them "often very happy when they die[d]," creating a major problem for the well-being of the nation, and requiring state intervention.[96] On a similar note, one doctor on Jamaican plantations identified occasional lack of "necessaries, proper for new-born infants" among the causes of the enslaved population's high infant mortality rates.[97] Food scarcity in Jamaica during the American War threw the insecurity of the lives of slaves and British soldiers into high relief.[98] As Thomas Short had earlier generalized, though in a piece mainly concerning Britain, "by great Plagues the lower or servile sort of People are greatly diminished. Famines often follow from Labourers or Husbandmen being exhausted or dead, and not a sufficient Stock left for Husbandry, Tillage, and Encrease [*sic*]: Sometimes War paves the Way to both Plague and Famine."[99] Poverty, dependence, and the poor and insecure conditions attending these things helped link "the lower or servile sort of People" as constituting particularly and similarly vulnerable populations in need of managing.

Difficulty in providing large numbers of soldiers and sailors across distant sites with adequate supplies of healthy food and drink posed ongoing threats to effectiveness that obsessed

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[95] *An Essay on the Principle of Population, as It Affects the Future Improvement of Society. With Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers*, 73.

[96] Buchan, *Domestic Medicine*, 25, 29-30.

[97] A Jamaica Planter, *Notes on the Two Reports from the Committee of the Honourable House of Assembly of Jamaica*, 60.

[98] HL, Stowe Collection, Brydges Correspondence, Jamaican Estates—STB Box 25; TNA: PRO CO 137/78, ff. 57r-60r, Gov. Dalling to Lord Germain (and enclosed petition to the king), 8 June 1780. See also Richard B. Sheridan, "The Crisis of Subsistence in the British West Indies During and after the American Revolution," *The William and Mary Quarterly* Third Series, Vol. 33, no. No. 4 (Oct., 1976).

[99] Short, *New Observations, Natural, Moral, Civil, Political, and Medical, on City, Town, and Country Bills of Mortality. To Which Are Added, Large and Clear Abstracts of the Best Authors Who Have Wrote on That Subject. With an Appendix on the Weather and Meteors* 125.

doctors and administrators, many of whom also wrote about slaves and the poor.[100] The Admiralty throughout the century experimented with medicines and dietary regimens to maintain the health of sailors at sea, with a particular emphasis on combating scurvy.[101] For instance, a captain in 1743 received orders to issue a daily ration of "half Beer, & half English Malt Spirits" to the sailors under his command, "and to report, after have had sufficient Experience thereof, of the usefulness of this allowance…& what Effect it has upon the Health of the Men.[102] The captain later reported that five months of this practice demonstrated that it had "a good Effect upon the Health of the Men, especially keeping them clear of the Scurvy."[103] Orders for a voyage five years earlier required a detailed report "of the usefulness, application & Effect" of an expensive medicine for "the Flux," noting that the surgeon's failure to make this report would result in withholding his wages.[104] In July 1791, the Sick and Hurt Board arranged a supply of dried borecole for HMS *Providence* and *Assistance,* under the command of Captain William Bligh on his second attempt to transplant breadfruit from Tahiti to the West Indies. The Board provided the ships' surgeons with observations from a surgeon on an earlier voyage to the East

[100] On the problem of health and supply management in making feasible extended blockades of French ports, see Erica M. Charters, ""The Intention Is Certain Noble": The Western Squadron, Medical Trials, and the Sick and Hurt Board During the Seven Years War (1756-63)," in *Health and Medicine at Sea, 1700-1900*, ed. David Boyd Haycock and Sally Archer (Woodbridge: The Boydell Press, 2009).

[101] Lawrence, "Disciplining Disease: Scurvy, the Navy, and Imperial Expansion, 1750-1825."

[102] HL, Pocock Papers, Box 3, PO 477, Thomas Corbett [Admiralty] to Pocock, 26 July 1743.

[103] HL, Pocock Papers, Box 4, PO 524, Pocock to Corbett, 19 Jan. 1743 [1744].

[104] HL, Pocock Papers, Box 1, PO 149, Admiralty to Pocock, 8 May 1738.

Indies concerning the use of borecole as an antiscorbutic.[105] Although the navy only made provisioning ships with lemons a general practice in the 1790s, it made trials of citrus preparations throughout the second half of the century, and individual commanders reported acting on their own initiative in using rations of citrus fruit to combat scurvy amongst sailors.[106] There is also evidence of similar practices in the transatlantic slave trade, in which scurvy was a well-known problem among both sailors and slaves.[107]

Following from the example of scurvy, which contemporary observers knew as a disease of confinement and poor diet, hard labor and exposure to unhealthy living and working environments also made subaltern populations appear notably vulnerable to health threats. The *Plan of the Surry Dispensary* justifies the dispensary by invoking the importance of the poor to the community as well as poor people's need for assistance "in sickness, when they are rendered incapable of supporting themselves and their families. Hard labour, unwholsome [*sic*] food, want of proper clothing, and exposure to the vicissitudes of air & weather, subject them to many

[105] TNA: PRO ADM 98/67, Sick and Hurt Board to Capt. Bligh (HMS *Providence*), 1 July 1791, and to Lieut. Portlock (*Assistant* tender), 1 July 1791, pp. 11-13. The mission itself also reflected the preoccupation of authorities in Britain and the West Indies with problems of cultivating and maintaining the health of the enslaved population. West Indian planters and the President of the Royal Society, Sir Joseph Banks, envisioned breadfruit as a potential staple food crop that could be grown inexpensively in the West Indies for slaves, thus reducing dependence on unreliable importation of food and improving slaves' diets. Planters professed the hope that this would reduce the obstacles to the enslaved population becoming self-sustaining. The extents to which planters actually thought this would occur and to which their efforts were intended as a show of concern in the abolition debate are open questions.

[106] For example, see TNA: PRO ADM 98/10, 11 and 28 April 1766, pp. 143-6; 1 July 1767, pp. 193-4; ADM 98/11, Sick and Hurt Board to Philip Stephens [Admiralty], 24 Dec. 1776, f 42.

[107] BL Add MSS 18272, collections relating to the Slave Trade, consisting of evidence of merchants given in the years 1775-1788, James Renny Esq.r 6th March 1788, ff 32-33. Renny claimed that when slaves were on deck, "The Surgeon or his mate also generally attends to wash their [possibly just slaves showing possible signs of scurvy] Mouths with Vinegar or lime juice in order to prevent the Scurvy."

disorders unknown to those whose affluence can procure the conveniencies of Life."[108] According to the prominent army doctor and eventual President of the Royal Society, Sir John Pringle, British soldiers in the Low Countries suffered worse health than did their officers, due mainly to worse food and accommodations, as well as having more outdoor duties. Pringle further noted that this disparity extended to civilians, despite earlier differentiating soldiers' and civilians' health problems; "[illness] was most frequent among the poorer sort, who lay on ground-floors, lived ill, and wanted medicine."[109] A navy surgeon wrote similarly that it was unsurprising that only the common sailors on his ship, not the officers, suffered from a dysentery epidemic, because the officers "lived better in every respect, and were not nearly so much exposed to the many hardships."[110] Buchan considered sailors and soldiers "amongst the laborious," noting that they "undergo great hardships from change of climate, the violence of weather, hard labor, bad provisions, &c."[111]

Proslavery writers and doctors explained the enslaved population's high mortality rates as arising partly from similar conditions. One 1776 piece on health in the West Indies claims that blacks and whites have different constitutions because they have different diets and occupations, but it lists black slaves' exposure to the elements from their work as a cause of the diseases that afflict them.[112] Clearly, this statement has analogs in discussions of the health of British sailors, soldiers, and other working and poor people. Other observers made the connection between these

[108] *A Plan of the Surry Dispensary, in Montague-Close, near St. Saviour's Church, for the Relief of the Poor Inhabitants of the Borough of Southwark and Places Adjacent, at Their Own Habitations. Instituted in the Year 1777*, (London: Printed by James Phillips, [1778?]), 6.

[109] Pringle, *Observations on the Diseases of the Army*, 53, 82, and for the same point for war more generally, 88.

[110] Robertson, *Observations on Fevers*, 103.

[111] Buchan, *Domestic Medicine*, 53-5, quote on 55.

[112] *Practical Remarks on West India Diseases*, (London: F. Newberry and F. Blyth, 1776), 6-10.

groups explicit. According to the author of a late eighteenth-century book manuscript, discussing high mortality rates for slaves, "the Poor and Labouring part of Mankind are always the more exposed to Accidents touching Life or Limb, than those whose bread is cast upon smoother waters."[113] Similarly, roughly four decades earlier, merchant James Knight attributed the prevalence of "fluxes" in the West Indies partly to individuals' negligence in "expos[ing] themselves to injurys [*sic*] of the weather." "This appears plainly," Knight wrote, "from the great number of Nigros [*sic*], and the poorer sort of white People, who in these Seasons are much more afflicted with this Distemper than such whose conditions of life, does not subject them to the like inconveniencys [*sic*]."[114]

Likewise, military commanders and doctors blamed service conditions for encouraging epidemic disease. Pringle pointed to the ease with which "the itch" could spread within the army, due to the concentration of soldiers in relatively close quarters.[115] Many observers noted that crowding on ships facilitated the spread of disease amongst sailors and passengers. This problem linked ships with military camps, hospitals, and prisons; "ship fever" became synonymous with "camp fever," "hospital fever," and "jail fever." Doctors and other authorities noted that these were diseases primarily, though not exclusively, of the lower classes, the members of which were most exposed to such environments. As part of Parliament's investigations of the Atlantic slave trade, MPs solicited comparative estimates of mortality rates and crowding of sailors on

[113] BL Add MS 12439, f. 116v.

[114] BL Add MS, 12416, [Knight, "The Naturall, Morall and Political History of Jamaica"], f. 84v. A 1750 work on Barbados made the same point, using exactly the same words. SeeGriffith Hughes, *The Natural History of the Island of Barbados* (London,1750), 90.

[115] Pringle, *Observations on the Diseases of the Army*, 113.

naval vessels, soldiers on transports, and sailors and slaves on slave ships.[116] Tellingly, the Irish doctor and prison reformer, Sir Jeremiah Fitzpatrick, compared appalling disease conditions and overcrowding on army transports in early 1794 to conditions on slave ships.[117]

As writers in Britain and its colonies noted, the exigencies of labor played a major role in exposing subaltern groups to unhealthy environments. Military and naval operations increasingly required the labor of large groups of sailors and soldiers in locations especially favorable to epidemics. Robert Jackson complained that the primacy of mercantile concerns added to the problem by dictating the stationing of soldiers in the unhealthiest areas of Jamaica.[118] This concern echoed those of doctors and social and political commentators in Britain about poor people needing to move to unhealthy cities for work. Finally, proslavery writers argued for black people's superior ability to labor in the West Indies, but they also described "the torrid zone," as, in one observer's words, "unfavourable to the Multiplication of the humane [*sic*] Race."[119] Given the apparent lack of a crisis of reproduction in Africa, however, this observer identified labor as the additional, necessary factor inhibiting reproduction amongst slaves in the West Indies.

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[116] "Minutes of the Evidence Taken before a Committe of the House of Commons, Being a Committee of the Whole House, to Whom It Was Referred to Consider of the Circumstances of the Slave Trade, Complained of in the Several Petitions Which Were Presented to the House in the Last Session of Parliament, Relative to the State of the American Slave Trade," in *House of Commons Sessional Papers of the Eighteenth Century: Minutes of Evidence on the Slave Trade 1788 and 1789* (1789), 107-08; "Minutes of Evidence Taken on the Second Reading of the Bill, Intituled, ``an Act for Regulating the Shipping, and Carrying Slaves in British Vessels from the Coast of Africa."," in *House of Lords Sessional Papers* (6 June 1799); "Report of the Lords of the Committee of Council Appointed for the Consideration of All Matters Relating to Trade and Foreign Plantations; Submitting to His Majesty's Consideration the Evidence and Information They Have Collected in Consequence of His Majesty's Order in Council, Dated the 11th of February 1788, Concerning the Present State of the Trade to Africa, and Particularly the Trade in Slaves; and Concerning the Effects and Consequences of This Trade, as Well in Africa and the West Indies, as to the General Commerce of This Kingdom," in *House of Commons Sessional Papers of the Eighteenth Century: Report on the Lords of Trade of the Slave Trade 1789, Part 1*, 467.

[117] TNA: PRO WO 1/896, Fitz Patrick to Lennox, No. 2, f. 14v/p. 32.

[118] Jackson, *An Outline of the History and Cure of Fever*, 99-100.

[119] BL Add MS 12439, An Inhabitant of Jamaica [attributed to Rev. Lindsay], "A Few Conjectural Considerations upon the Creation of the Humane Race. Occasioned by the Present British Quixottical Rage of setting the Slaves from Africa at Liberty," (St. Jago de la Vega, July 23, 1788) [unpublished MS], f. 114r.

Women on "cool Mountain Plantations" with easier work than women on lowland plantations supposedly had "children in great abundance."[120] Other commentors expressed similar views, advocating among other things that planters give pregnant slaves easier work.[121]

Self-Destructive Populations

Despite all this, social and political authorities throughout the British Atlantic blamed the behavior and character of members of subaltern groups for adding to the problems already mentioned. The groups in this chapter appear in much of the printed literature from the period as so incapable of self-control as to be self-destructive. For example, slavery advocates argued that black women's supposed promiscuity, debauchery, and frequent use of abortion held down birthrates.[122] Dr. John Quier, who had an extensive medical practice on Jamaican plantations, attributed high infant mortality in the slave population not just to lack of resources, but also to slaves' uncleanliness and backwardness.[123] Black people also routinely appear in print sources as lazy and prone to excess, especially drunkenness.[124] These characteristics provided for many British commentators an explanation for slaves' medical problems. According to one anonymous writer, blacks' intemperate alcohol consumption increased their vulnerability to diseases.[125] A harsher statement appears in John Williamson's medical manual, which claims that Christmastime "scenes of excess, which their [slaves'] dispositions do not admit of preserving

[120] BL Add MS 12439, ff. 114r-114v.

[121] For example, Thomas, *Medical Advice to the Inhabitants of Warm Climates*, xii.

[122] For example, BL Add MS 12431, *Short Reasons,* f. 221v; *Medical Advice to the Inhabitants of Warm Climates*, xvi.

[123] A Jamaica Planter, *Notes on the Two Reports from the Committee of the Honourable House of Assembly of Jamaica*, 60.

[124] Atwood, *The History of the Island of Dominica*, 272.

[125] *Practical Remarks on West India Diseases*, 6-10.

within rational bounds" cause illness.[126] According to doctors and proslavery writers, such undisciplined misbehavior thus helped create slaves' poor conditions of existence, and it was characteristic not just of individuals, but of a population.

Similarly, the character of poor people in Britain supposedly added to their vulnerability to health problems. The negative sentiment was not, of course, uniform; many of the sources display sympathy for poor people. Lettsom described the poor as mostly industrious, but suffering under a bad reputation arising from the feckless minority's high visibility.[127] Nonetheless, as this statement suggests, less charitable portrayals enjoyed dominance. "That the general depravity of the lower orders of the people is amazingly spread within these few years," claimed one writer, "no man of discernment will deny."[128] Further, sources ranging from prints to medical treatises to social commentaries bemoaned the moral and health effects of alcohol abuse by the poor who apparently could not control themselves.[129]

Doctors, commanders, and many other commentators generally viewed soldiers and sailors as similarly incapable of properly regulating their own conduct without close supervision. Medical treatises and military reports from the period abound with statements about the deleterious effects of excessive alcohol consumption on sailors' and soldiers' health. Navy physician Robert Robertson lamented

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[126] Williamson, *Medical and Miscellaneous Observations*, I, 170-71; "'Parliamentary Inquiry into the Treatment of Slaves in the West Indies,' House of Commons Sessional Papers (London, 1789)," in *Medicine and the West Indian Slave Trade* ed. Alan Bewell (London: Pickering & Chatto, 1999), 189; Thomas, *Medical Advice to the Inhabitants of Warm Climates*, xvi.

[127] Lettsom, *Of the Improvement of Medicine in London*, 21-2.

[128] Josiah Dornford, *Seven Letters to the Lords of the Privy Council on the Police...* (London, 1785), vii.

[129] Stephen Hales, *A Friendly Admonition to the Drinkers of Gin, Brandy, and Other Distilled Spirituous Liquors. With an Humble Representation of the Necessity of Restraining a Vice So Destructive of the Industry, Morals, Health, and Lives of the People. To Which Are Added, in an Appendix, Directions by a Very Eminent Physician, to Such as May Be Desirous to Break Off That Odious and Fatal Habit of Drinking Drams*, 4th ed. (London: B. Dod, 1751), 13-14. Buchan puts it down to a need for solace in the face of a miserable existence: Buchan, *Domestic Medicine*, 121.

> The direful consequence of that abominable practice, which seamen always have of injuring their constitutions, by getting drunk as often as they are able to get any thing that will make them so...Thus fatally bent they are upon their own destruction, notwithstanding the pain also of the punishment which they are sure to suffer for their drunken riots.[130]

Buchan identified "excess" following long confinement aboard ships as a major cause of sailors' illnesses.[131] In a bid to steer soldiers away from the infamously unhealthy "new rum," the Jamaican Assembly attempted to make better, less dangerous rum affordable by exempting soldiers from paying duties on it.[132] According to one army doctor, however, soldiers sold their good rum for larger quantities of new rum, leading to more intoxication and, consequently, ill health and death.[133] Robert Jackson classified drinking alcohol to excess as an aggravator of disease, and noted its degrading effects on discipline and military activity more generally. To be sure, he and some others partly blamed military and naval authorities for encouraging excess drinking.[134] Nonetheless, soldiers and sailors received the lion's share of the blame for what was near univerally regarded as a major problem with serious consequences for health and, thus, military effectiveness.

Further, such characterizations linked these diverse groups by pathologizing them as direct threats to the health of the population as a whole. According to surgeon W.L. Kidd,

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[130] Robertson, *Observations on Fevers*, 99.

[131] Buchan, *Domestic Medicine*, 55.

[132] O'Shaughnessy, *An Empire Divided: The American Revolution and the British Caribbean*, 264, n. 26.

[133] Bell, *An Inquiry into the Causes Which Produce, and the Means of Preventing Diseases among British Officers, Soldiers, and Others in the West Indies*, 16-7. To be fair, Bell and several others argued that military and naval policies contributed to the problem. For example, see Leonard Gillespie, *Advice to the Commanders and Officers of His Majesty's Fleet Serving in the West Indies, on the Preservation of the Health of Seamen* (London: J. Cuthell, 1798), 25.

[134] Jackson, *A Treatise on the Fevers of Jamaica*, 256-7, 59; Bell, *An Inquiry into the Causes Which Produce, and the Means of Preventing Diseases among British Officers, Soldiers, and Others in the West Indies*, 10, 15-16. See also TNA: PRO ADM 101/102/7, Private Journals of L. Gillespie, Surgeon RN, 11 Dec. 1789.

writing in 1817, poverty and environmental conditions triggered a recent typhus epidemic in Ireland, but the uncleanliness, drunkenness, and backward customs of the Irish poor ensured that such an epidemic constantly threatened. Furthermore, he effectively identified the Irish poor as constituting a population group whose (partly self-inflicted) vulnerability to epidemics threatened to introduce disease to the rest of the population.[135] Many others made similar statements. Buchan identified the poor as the group among whom epidemics usually received their start, and from whom they spread to "the better sort," while an army surgeon noted that once an epidemic broke out amongst soldiers on a ship, the officers became vulnerable.[136] Pringle noted that "the little attention men of that rank [soldiers] have to cleanliness" combined with cramped living conditions to facilitate the spread of disease through the army. Consequently, he argued, controlling disease required not trusting soldiers to act properly, but rather imposing preventive measures on them.[137] Fears of disease spreading to nearby towns from military hospitals and units quartered or encamped in Britain spurred complaints and countermeasures from local authorities and townspeople.[138] Such worries paralleled those of military authorities about disease spreading to their units from recruits from pestilential towns in

[135] HL, ms 47866, W[illiam]. L[odge]. Kidd, "A concise Account of the Typhus Fever at present prevalent in Ireland, as it presented itself to the Author in one of the Towns in the North of that Island," 10 Oct. 1817, pp. 4-9.

[136] Buchan, *Domestic Medicine*, 138; Henderson, *A Letter to the Officers of the Army under Orders For...The West Indies*, 5.

[137] Pringle, *Observations on the Diseases of the Army*, 113-14.

[138] For example, see NMM, ADM /E/7, Admiralty to Sick and Hurt Board, 8 March 1734, and petition to the Admiralty from Plymouth; TNA: PRO ADM 98/2, Sick and Hurt Board to Admiralty, 16 July 1745, p 349; TNA: PRO ADM 98/14, Sick and Hurt Board to Admiralty, 18 Mar. 1782, pp 109-10; TNA: PRO WO 1/896, Lord Geo. Lennox (Plymouth) to [War Office], 4 Feb. 1794, ff 5r-74/pp 11-15.

Britain and abroad, and from black people in the West Indies: all increasingly seemed potential reservoirs of disease in need of containment.[139]

Colonial and foreign luxuries added, for moralists and doctors, to the problems created by the character and unhealthy conditions of Britain's poor and laboring population. The writings of many social commentators express "the fear that the civilizing process could operate in reverse, that colonial exchange could unleash savage appetites at home."[140] Writers such as the merchant and prominent philanthropist, Jonas Hanway, claimed that the increasing availability of luxury goods, especially foreign luxuries, was weakening the core of Britain's population by promoting excess, effeminacy, vanity, and laziness. In the eyes of Hanway and others, these were failings of individual and collective character, but ones that had serious consequences for the health, fitness, and reproduction of the population.[141] A piece from 1777, generalizing about "persons and things in the lower class of life," attributes "almost all poverty, and all the evils which affect the labouring part of mankind" to use of luxury goods and alcohol.[142] The main thrust of such critiques is that purchasing luxuries took money away from necessities like food and clothing. In addition, they observed more direct negative effects of the consumption of luxury goods. As with liquor, observers such as Hanway attributed dependency, weakened physical constitutions, and

[139] WL, RAMC/210/3, ninth point in description of the duties of the Brigade Surgeon; WL, RAMC/210/9, [Reports re inspection of hospitals on Martinique, St. Lucia, Barbados...1815], entry for Antigua; Trotter, *Medicina Nautica*, I, 159-60. For an instance of local authorities attempting to use this concern to avoid having to quarter soldiers, see TNA: PRO WO 1/1072, Thomas Cooper (Henley) to the Commanding Officer of the Kings own Regiment of Light Dragoons (Reading), 23 Feb. 1794, pp 99-100. Fears of recruits introducing disease to units were especially prominent.

[140] Kay Dian Kriz, "Curiousities, Commodities, and Transplanted Bodies in Hans Sloane's "Natural History of Jamaica"," *The William and Mary Quarterly* Third Series, Vol. 57, no. No. 1 (Jan., 2000): 64.

[141] Jonas Hanway, "An Essay on Tea, Considered as Pernicious to Health, Obstructing Industry, and Impoverishing the Nation," in *A Journal of Eight Days Journey...To Which Is Added an Essay on Tea* (London: 1757), 76.

[142] *An Essay on Tea, Sugar, White Bread and Butter, Country Alehouses, Strong Beer and Geneva and Other Modern Luxuries*, (Salisbury, 1777), 7.

other health, strength, and character deficiencies to the overuse of luxury goods by poor and working people.

Poor people's alleged proclivity for inappropriate luxury goods fit into the broader claims I have been outlining that members of subaltern populations manifested a dangerous lack of self-control. Sir Gilbert Blane's analogy, in a political context, of "the labouring classes" to children who "could not suffer a greater injury than to be left to their own guidance" echoed earlier political, social, and medical statements.[143] Blane himself had in the 1780s referred to sailors as needing "to be tended like children" for their own preservation—tending that their officers and the state owed them.[144] According to a commonly-used argument, poor people in Britain worked only as much and as hard as necessary to scrape by, even if more work would reward them beyond mere subsistence.[145] Proslavery texts apply this argument to demonstrate the pointlessness and economic dangers of freeing slaves; unless compelled, like the British poor, sailors, and soldiers, they would do little work, even for their own best interest.[146] The childlike characteristics that doctors and social and political commentators ascribed to military and naval personnel, "the labouring classes," and slaves meant that without proper management by their superiors, members of these groups would destroy themselves.

They would do this, so the argument went, through laziness, improvidence, ignorance, and credulity, in addition to willful self-destructiveness. Left to their own devices, a number of observers claimed, sailors and soldiers would lapse into an enfeebling state of inactivity.

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[143] Blane, *Reflections on the Present Crisis on Publick Affairs*, 63; *Observations on the Power of Climate over the Policy, Strength, and Manners, of Nations*, (London: J. Almon, 1774), 132-33.

[144] Blane, *Short Account*, 14-5, 60, 67. So did Thomas Trotter. See Trotter, *Medicina Nautica*, I, vii.

[145] For example, see Buchan, *Domestic Medicine*, 52.

[146] BL, Add MS 38416, Liverpool Papers Vol. CCXXVII, Paper received from Lord Rodney, March 1788, ff. 73v-74r; Atwood, *The History of the Island of Dominica*, 272-75.

Moreover, their thoughtlessness "with regard to their own preservation" frequently led to late discovery of disease.[147] In an attempt partly to recoup expenses for treating venereal diseases and mostly to deter sailors from engaging in risky sexual behavior, the navy instituted a fifteen-shilling charge for venereal disease treatment. Consequently, sailors adopted what doctors saw as the ridiculous behavior of trusting remedies offered by friends and refusing to report their disease to doctors until it reached an advanced state.[148] In other words, rather than try to mitigate the ill effects of the conditions and environments within which they had to operate, soldiers and sailors allegedly acted in ways that added to those ill effects.

In another similarity between authorities' conceptions of subaltern groups in the British Atlantic, enslaved people also supposedly worsened their own conditions, through their alleged superstitions and ignorant credulity. This point recurs throughout medical and political discourse from the eighteenth and early nineteenth centuries. According to one writer, the same indolence and thoughtlessness that made slaves unlikely to work of their own volition also made them ignore obvious health problems.[149] Other observers claimed that slaves with venereal diseases often concealed their diseases from plantation overseers and physicians and secretly put their trust in incompetent irregular practitioners. This resulted in the diseases becoming incurable—the parallel to doctors' complaints that British sailors hid their venereal diseases is unmistakable. Such trust for irregular practitioners signaled to doctor and medical writer John Williamson an

[147] Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy*, 60, 67. See also Arthy, *The Seaan's Medical Advocate*, 215-17.

[148] TNA: PRO ADM 1/3533, Letters, Haslar and Stonehouse Hospitals (1793-1800), Instructions for naval commanders [included with -"Instructions to Mr. George Mottley Agent to the Royal Hospital at Haslar," from the Commissioners for taking Care of Sick and Wounded Seamen], No. 8; Robertson, *Observations on Fevers*, 130. For an argument that the charge was a dangerous and unfair failure at both treatment and deterrence, see Trotter, *Observations on the Scurvy*, 86-89.

[149] Atwood, *The History of the Island of Dominica*, 275.

unsurprising prevalence of irrationality and superstition among slaves.[150] Similarly, commentators such as Benjamin Moseley and Edward Long referred contemptuously to enslaved obeah practitioners as "pretended Wizards" and practitioners of "Witchcraft or Sorcery."[151] Thomas Atwood called their "imaginary charms" for "imaginary disorder[s]...very laughable."[152] Yet, representatives (including Long) of Jamaica's planters testified to Parliament that slaves' credulity and mental weakness allowed obeah—an Afro-Caribbean "complex of shamanistic practices" that served needs of "social and spiritual healing and protection"—to have an "astonishing Influence...upon their Minds," endangering the health of slaves and the security of the plantation order.[153] Early nineteenth-century Jamaican slave court records contain similar claims. One representative indictment alleges that an obeah practitioner "impress[ed] on the minds of divers [*sic*] Negroes...that he was possessed of Such Supernatural power...by which impression and other practices and acts of Obeah the Minds and healths [*sic*]...of divers [*sic*] Slaves...were and are greatly Affected to the great damage and material injury of the proprietor."[154]

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[150] Williamson, *Medical and Miscellaneous Observations*, I, 58, 98. See also HL, Stowe Collection, Brydges Correspondence, Jamaican Estates—STB Box 25, J. Concanon to [Duchess of Chandos], 6 May 1779.

[151] Moseley, *A Treatise on Sugar*, 174; Long, *The History of Jamaica*, II, 416. "Parliamentary Inquiry," in Bewell, *Medicine and the West Indian Slave Trade,* 189, 193. The section on obeah from the "Parliamentary Inquiry" printed on p. 193 appears also in Brian Edwards's 1793 *History of the West Indies*; Thomas Winterbottom referred to "this supersititious dread of witchcraft" as "a mental disease" that often was fatal. See Thomas Winterbottom, *An Account of the Native Africans in the Neighbourhood of Sierra Leone; to Which Is Added an Account of the Present State of Medicine among Them*, vol. I (London: Printed by C. Whittingham, 1803), 262.

[152] Atwood, *The History of the Island of Dominica*, 268.

[153] "'Parliamentary Inquiry into the Treatment of Slaves in the West Indies,' House of Commons Sessional Papers (London, 1789)," 194. For other examples of the scorn with which colonial observers portrayed obeah, see Long, *The History of Jamaica*, II, 416; Moseley, *A Treatise on Sugar*, 174. For this definition of obeah, see Vincent Brown, *The Reaper's Garden: Death and Power in the World of Atlantic Slavery* (Cambridge, MA: Harvard University Press, 2008), 145-46. I discuss this topic in further detail in Chapter 5 below.

[154] JA, 2/18/6 (St. George Slave Court, 1822-1831), "The King vs. Joseph alias Bellyfull a Slave", 2 Oct. 1822, f. 4r. For other examples, see the rest of this collection of records.

Likewise, according to a host of commentators, the irrationality and superstitions of poor people in Britain posed serious threats to their health. Surgeon John Aikin lamented their unwillingness to utilize hospital medical care:

> It is mortifying to think that all these advantages are in general so ill understood by those for whom they are designed; and it is a striking instance of unreasonable prejudice, joined to weak credulity, that the very people who would not on any account enter a hospital, though attended by men of the most approved skill and humanity, will without hesitation commit themselves to the care of an itinerant quack, whose whole practice is nothing but random guess, and presumptuous rashness.[155]

This statement reflects the sharpening divide over the course of the eighteenth century between self-proclaimed scientific medicine and popular medicine. Aikin portrays accepting treatment from a "quack" as an example of plebeian ignorance, irrationality, and backwardness. John Coakley Lettsom's judgment shows more sympathy, but also identifies the medical aid of "specious pretenders" as a health hazard for the poor.[156] These statements, especially Aikin's, parallel claims that sailors and slaves put their health at risk by not reporting diseases and purposefully avoiding professional care as long as possible. According to a range of commentators, ignorance and irrationality bred mistrust of proper medical authorities and allowed obeah practitioners and others judged unqualified according to European medical orthodoxy to exercise dangerous influence over the health of the masses—black and white alike. One writer noted that even some affluent whites living in environments such as that of Jamaica succumbed to belief in obeah's efficacy.[157] Still, in sources from across the British Atlantic, such

[155] John Aikin, *Thoughts on Hospitals* (London: Joseph Johnson, 1771), 81-82.

[156] Lettsom, *Of the Improvement of Medicine in London*, 37.

[157] Thomas Winterbottom, *An Account of the Native Africans in the Neighbourhood of Sierra Leone, to which is added An Account of the Present State of Medicine among them.* Second Edition, 2 vols. (London: Frank Cass & Co. Ltd., 1969, first edition 1803), I, 258, 264-5, II, 2.

irrational beliefs appeared as obstacles characteristic to managing the labor, health, and numbers of subaltern populations.

Conclusion

This chapter has explored how health was configured as a social and political problem regarding subaltern populations in the eighteenth- and early nineteenth-century British Atlantic World. It has argued that sailors, soldiers, slaves, and the British poor provided crucial, and often coerced, economic and military labor that made managing their health and numbers increasingly important for social and political authorities throughout the British Atlantic. Managing these different groups presented authorities with interrelated and often similar problems, due largely to complementary labor roles and perceived commonalities between groups. Building on this point, I have argued that the perception of these populations as especially and similarly vulnerable in terms of health additionally linked them in the eyes of physicians, surgeons, and a range of other observers. Authorities saw this vulnerability as characteristic of poor and laboring populations in general, who had in common poverty, hard labor, exposure to unhealthy environments, and an inability to properly regulate their own behavior.

Taken together, these arguments illuminate some of the ways in which the exigencies of empire, warfare, slavery, and urbanization foregrounded the health of laboring populations as a major problem for British authorities during the long eighteenth century. Further, this chapter highlights the many continuities and interrelations in authorities' conceptions of this problem across diverse populations and distant sites, both colonial and metropolitan. Doctors, social and political commentators, philanthropists, government officials, and planters developed concerns about managing subaltern populations in dialogue with one another, through correspondence and printed works. Yet, these dialogues ran in multiple channels. Although sources concerning

military and naval personnel, slaves, and the British urban poor refer to these groups in similar—sometimes even identical—terms, they often make only passing mention of any group other than the one on which they focus. Still, in addition to employing a common set of terms and characterizations, they commonly included numerous other implicit and explicit comparisons and connections across groups and to each other. If there were several discourses focused on different groups, they did not simply run parallel to one another; they overlapped, intersected, and informed one another at multiple points. In doing so, they formed intertwined transatlantic discourses concerning the health of subaltern populations.

Chapter 3: Engineering Environments and Populations during the Eighteenth Century

Environmental conditions increasingly appeared to a range of authorities across the British Atlantic during the eighteenth century as open to and in need of modification in order to manage the health and character of populations. As historian James C. Riley has argued, "the eighteenth-century campaign to avoid disease" in European nations and empires featured efforts by authorities to break the perceived link between environment and disease. Doing so involved "environmental engineering," the principal means of which were "drainage, lavation, ventilation, and reinterment."[1] Although the British government had relatively little direct involvement in initiating sustained, preemptive public health action, local officials, doctors, philanthropists, and others perused many schemes along these lines for improving physical and epidemiological environments: street cleaning, refuse collection, and provisions for clean water, for example.[2] Authorities in Britain and its colonies generalized techniques of environmental engineering across environments and populations they conceived of as broadly similar. Yet, I argue, they increasingly viewed poor and laboring populations as parts of the disease environments that needed engineering. In other words, the disease environment comprised more than the physical space, both "natural" and built. It included the bodies of people living in certain types of spaces. Although this view did not necessarily imply moral judgment of poor and laboring people, it often did, and it manifested in increasing pathologization of them as a population.

In making this argument, this chapter acknowledges well-known, large-scale strategies for modifying physical environments through practices such as deforestation, swamp drainage,

[1] James C. Riley, *Population Thought in the Age of the Demographic Revolution* (Durham, 1985), quote on xi; *Eighteenth-Century Campaign.*

[2] Porter, "Cleaning up the Great Wen: Public Health in Eighteenth-Century London."

and street cleaning, but it focuses on institutional settings. Specifically, it examines efforts to manage prisons, slave ships, naval vessels, and hospitals, the last of which it also examines as tools for managing wider disease environments and populations. I argue that this focus reveals that practices of environmental engineering were inseparable from efforts to control the movement, behavior, and cleanliness of the lower sort during the eighteenth century. Eighteenth-century European concepts of police encompassed the ordering not just of space, refuse, and other elements of physical environments, but also of people and their behavior. Further, recent scholarship has undermined the notion that "police," including medical police, was anathema to British political culture during the eighteenth century.[3] A vast body of print advocated sustained government surveillance and regulation of poor and laboring people, as well as of environments, to secure the health and productivity of the population, though such suggestions provoked political and social opposition**.** Nonetheless, medical police did translate from discourse into practice in Britain and its colonies before the nineteenth century. In coercive institutional contexts such as the armed forces, the slave trade, and charities, authorities made increasingly sweeping and intrusive claims to manage poor people's bodies, imposing routines of inspection and enforced cleanliness. These attempts at control combined aims of cultivating health and enforcing subordination and labor discipline.

Ventilation and Engineering Physical Environments

The fatal disease epidemic following the court sessions at the Old Bailey in April 1750

[3] Patrick Carroll makes a convincing case for medical police in eighteenth-century Britain, in contrast to work claiming the inapplicability to Britain of a term and approach usually associated with authoritarian, mercantilist states on the continent. See Patrick E. Carroll, "Medical Police and the History of Public Health," ibid.46(2002). More generally on ideas of police in Britain during the eighteenth century, see also Dodsworth, "The Idea of Police in Eighteenth-Century England." For an important argument that attempts to employ medical police by the English monarchy during the early seventeenth century became associated with arbitrary government and were abandoned after the Civil Wars until the nineteenth century, see Harold. J. Cook, "Policing the Health of London: The College of Physicians and the Early Stuart Monarchy," *Social History of Medicine* 2, no. 1 (1989).

reinforced a widespread identification of jails as spaces that generated disease and threatened to spread it to the population at large. By this point, writers could draw on many examples of disease epidemics linked to court sessions, including Oxford's "black assize" in 1577 as well as much more recent epidemics in Taunton (1730) and Launceston (1742). The 1750 case was especially prominent, given its central location in London and its high profile victims. According to two eighteenth-century accounts, the courthouse, which was connected to Newgate Prison, was "extremely crowded" with people, and "many people, who were in court at this time, were sensibly affected with a very noisome smell." As a result, in the week and a half following the session, "a fever of the malignant kind" broke out among the court-goers. The Lord Mayor of London, Sir Samuel Pennant, judges Sir Thomas Abney and Baron Clarke, alderman Sir Daniel Lambert, several court officers and members of the jury, and dozens of other people attending the sessions soon died of typhus, or gaol-fever.[4]

The dramatic, publicly visible demonstration of the pathogenic environment within Newgate Prison—and its potential to reach beyond Newgate's walls to afflict the affluent—prompted London's government to act to mitigate the prison's unhealthiness. In doing so, it relied on the expertise of extra-governmental consultants, further demonstrating the blurriness of divisions between nominally public and private spheres when it came to governing. A committee of aldermen consulted two members of the Royal Society: John Pringle and Stephen Hales. Pringle was a prominent former army medical officer who also wrote on health more generally, including O*bservations on the Nature and Cure of Hospital and Jayl Fevers* (1750). Hales was a

[4] Pringle, *Observations on the Diseases of the Army*, 346-49. Quotations from Sir Michael Foster, *A Report of Some Proceedings on the Commission for the Trial of the Rebels in the Year 1746, in the County of Surry; and of Other Crown Cases: To Which Are Added Discourses Upon a Few Branches of the Crown Law* (London: Printed for E. and R. Brooke, 1792), 74-75. Doctors in eighteenth-century Europe generally considered "gaol-fever," "ship fever," "camp fever," and "hospital fever" as synonymous. The identification of these fevers as typhus is not entirely retrospective. For example, see Trotter, *Medicina Nautica*, I, 252.

church minister, philanthropist, and longstanding member of the Royal Society who had developed and published about mechanical ventilators for making enclosed spaces healthier. Hales and Pringle recommended trying a system of ventilators powered by a windmill, but it took nearly two years for anything to come of this suggestion. The ventilators and windmill were installed at Newgate in 1752, although this system seems to have replaced a preexisting one.[5] Nor was Newgate unique in having a ventilator; the Savoy Prison received one of Hales's design in 1749, and by 1753, the Winchester jail had had Hales's ventilators for "many years." Other prisons and hospitals in Britain also installed ventilators around this time.[6]

The focus here was clearly on securing the health and fitness of populations rather than of individuals. Doctors, philanthropists, and government officials looked to modify environments in order to prevent "the lower sort" from becoming a source of contagion for the population, especially, though by no means exclusively, the affluent. Ventilation systems drew on the idea that exposure to stagnant air presented one of the main health threats to people in urban centers and enclosed spaces. Planners and administrators thus increasingly aimed "to promote free ventilation, by all possible means" along with cleanliness within buildings and, on a larger scale, within cities and towns.[7] Writing earlier in the eighteenth century, the influential English physician and advocate of quarantine, Richard Mead, argued that shutting people in their homes

[5] In a later paper to the Royal Society, Pringle mentioned "the old ventilator, which had stood there for three or four years."*The Gentleman's Magazine, and Historical Chronicle,* Vol. XXII. (April 1752), illustrations between pages 180 and 181; John Pringle, "An Account of the Several Persons Seized with the Goal-Fever, Working in Newgate; and of the Manner in Which the Infection Was Communicated to One Intire Family," *Philosophical Transactions of the Royal Society of London* 48(1753-4): 45.

[6] *The Gentleman's Magazine and Historical Chronicle,* Vol. XIX (1749), 282; Stephen Hales, "An account of the good effect of ventilators, in Newgate and the Savoy prison," *The Scots Magazine,* Vol. XV (1753), 99; A. E. Clark-Kennedy, *Stephen Hales, D.D., F.R.S.: An Eighteenth-Century Biography* (Cambridge University Press, 1929), 189-91; Riley, *Eighteenth-Century Campaign*, 107-08.

[7] Blair, *The Soldier's Friend*, 102; Riley, *Eighteenth-Century Campaign*, esp. Ch. 5; Porter, "Cleaning up the Great Wen: Public Health in Eighteenth-Century London."

when plague entered a household would simply generate more "*Contagion*, sooner or later to be dispersed abroad." Ventilation to the outside was necessary to protect individuals, which in turn was subordinate to the larger goal of safeguarding the population from epidemic disease.[8] Mead's views on contagion and quarantine provoked growing medical, economic, and political opposition as the century progressed, although the point about needing to cleanse and ventilate enclosed, crowded environments did not.[9] These were necessary to prevent the degeneration and ill health of confined or urban populations more generally, in addition to preventing epidemics. A late-century "Friend to Improvements" lamented the closed, darkened environments into which the window tax had fashioned "the meaner sort of houses." These produced "a race of more pale and sickly inhabitants," characteristics the author implied parents might pass on to their children.[10]

As this last example in particular suggests, the point was not simply to protect the wealthy from disease. It was also to manage the health and fitness of laboring populations. Like others, Hales linked prisons, workhouses, hospitals, ships and their populations as subject to a common set of health threats, and he presented his ventilator as a generally applicable tool for

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[8] Richard Mead, *A Short Discourse Concerning Pestilential Contagion, and the Methods to Be Used to Prevent It* (London, 1720), 34-35. Unless otherwise noted, emphasis in original.

[9] Mead's advice shaped the British government's updated quarantine act in response to the Marseilles plague outbreak in 1720, although not all of Mead's suggestions translated into law or practice, nor was the law itself uncontroversial. Arnold Zuckerman, "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead," *Bulletin of the History of Medicine* 78(2004): 274. Changing conceptions of disease and the blending of political, economic, and medical concerns in debates between "contagionists" and "anticontagionists," especially during the late eighteenth and early nineteenth centuries, have received considerable attention from medical historians. For a recent example, see Mark Harrison, *Contagion: How Commerce Has Spread Disease* (New Haven and London: Yale University Press, 2012).

[10] The implication comes in a discussion of the effects of darkness on plants and animals: "Mice kept in a cage in a very dark room produce *white mice*" (74). The discussion then transitions into a treatment of the case of a "*white Negro*, born of black parents, exhibited in London." See A Friend to Improvements, *The Philosophy of Medicine: Or, Medical Extracts on the Nature of Health and Disease, Including the Laws of Animal Oeconomy, and the Doctrines of Pneumatic Medicine*, Fourth ed., vol. III (London: Printed by C. Whittingham, 1800), 73-74. For more on this idea, see Chapter 1 above.

minimizing these threats. Hales devoted considerable attention to the health of maritime populations: sailors, as well as soldiers on transports and slaves on slave ships. He initially pitched a design for a ventilator to the navy in 1741, as did brewer Samuel Sutton, whose design Richard Mead promoted.[11] According to Hales, "the noxious Air in Ships" killed and or sickened "multitudes" of sailors. Thus, "finding a Means to prevent this great Evil, is of vastly more Consequence to Navigation, than the Discovery of the Longitude."[12] The navy made trials of ventilators aboard ships in the 1740s, and by the mid-1750s, Hales could cite testimony of their effectiveness in both the navy and the Atlantic slave trade.[13] *The Gentleman's Magazine* in 1747 approvingly mentioned the installation of Hales's ventilators in ships fitting out "to carry 500 *Germans* to the *British* plantations."[14] In 1757, the Admiralty ordered that commanders have ventilators used "at least One half Hour in every Watch," and that the times be noted in the ship's log.[15] Nearly eight months later, the naval commander at Spithead wrote to the Admiralty requesting ventilators for the *Royal Ann*, singling the ship out for its lack of them.[16] That said, even at the end of the eighteenth century, at least one naval captain identified neglecting to use

[11] Arnold Zuckerman, "Scurvy and the Ventilation of Ships in the Royal Navy: Samuel Sutton's Contribution," *Eighteenth-Century Studies* 10, no. 2 (1976).

[12] Stephen Hales, *A Description of Ventilators: Whereby Great Quantities of Fresh Air May with Ease Be Conveyed into Mines, Goals, Hospitals, Work-Houses and Ships, in Exchange for Their Noxious Air....* (London, 1743), v.

[13] "An Account of the Great Benefit of Ventilators in Many Instances, in Preserving the Health and Lives of People, in Slave and Other Transport Ships," *Philosophical Transactions of the Royal Society of London* 49(1755-6).

[14] *Gentleman's Magazine and Historical Chronicle,* Vol. XIX (1749), 292.

[15] NMM, MSY/A/1, 31 March 1757. The direction also appeared in printed regulations. See *Regulations and Instructions Relating to His Majesty's Service at Sea. Established by His Majesty in Council*, Ninth ed. (London, 1757), 219.

[16] TNA: PRO ADM 1/125, Charles Knowles to [Cleveland?], 26 Nov. 1757.

the ventilators on ships as a continuing obstacle to preserving sailors' health.[17]

In the context of accelerating urban and industrial growth, including the plantation system and transatlantic slave trade, and increasing use of long-term incarceration as punishment, authorities also made other provisions for policing crowded environments and populations. The 1774 Health of Prisoners Act called for regular cleaning and whitewashing of prisons, as well as yearly health inspections, proper ventilation, and the appointment of a paid surgeon or apothecary to report regularly on health in the prison, though the act seems to have had relatively little immediate effect on prison management by local officials.[18] The Jamaican Assembly paid doctors for medical attendance on workhouse and prison inmates, though the doctors seem to have had to petition the Assembly for the money. The Assembly approved a petition in 1784 from a "Lawrence Hunter, practitioner in physic and surgery" requesting compensation for medical attendance on prisoners at the Kingston jail throughout 1783. Hunter was to receive £100 for caring for "many white prisoners, free mulattoes and negroes, of such indigent circumstances that they were unable to pay the petitioner any consideration whatsoever…many insolvent prisoners for debt, and others, confined…who, by their imprisonment, became sick and infirm; as likewise many slave negroes." This was just one of many similar claims that doctors successfully made for compensation in Jamaica during the late eighteenth century.[19]

Such interventions aimed to modify physical environments and manage their effects on

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[17] Trotter, *Medicina Nautica*, I, 449.

[18] The act was 14 Geo. III c. 59. See Roy Porter, "Howard's Beginning: Prisons, Disease, Hygeine," in *The Health of Prisoners: Historical Essays*, ed. Richard Creese, W.F. Bynum, and J. Bearn (Amsterdam and Atlanta: Rodopi, 1995), 7.

[19] *Journals of the House of Assembly*, Vol. VIII (Jamaica: Alexander Aikman, 1804), 23, 71. For another example, see pp. 36, 76, and for another, see p. 40.

people, but one of the primary characteristics of these environments was their concentration of people's bodies in a given space. Environments shaped the characteristics of individuals and populations, but the people themselves increasingly appeared to constitute parts of the epidemiological environment. William Blair's *Soldier's Friend* describes "hospital or jail fever" as a disease affecting soldiers, but also more generally as "generated by men crowded together in any situation."[20] It seemed clear to contemporary observers, including city authorities, that the 1750 Old Bailey outbreak was not simply the result of a packed courthouse, but rather of crowding many people in an enclosed space with prisoners coming to trial from Newgate. The prison was crowded and "in a very filthy condition, and had long been so," helping create an environment that incubated the seeds of disease. This appeared a danger to the public even without notable signs of sickness among the prisoners, because they could still spread jail fever to others, as the case in question seemed to confirm:

> For without doubt, if the points of cleanliness and free air have been greatly neglected, the putrid effluvia which the prisoners bring with them in their clothes, etc., especially where too many are brought into a crowded court together, may have fatal effects on people who are accustomed to breathe better air; though the poor wretches, who are in some measure habituated to the fumes of a prison, may not always be sensible of any great inconvenience from them.[21]

This statement accorded with some of the darker elements of contemporary thinking about medicine and the effects of living in urban areas and other crowded spaces. In a 1788 piece, William Black suggested that if children survived long enough, they could become

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[20] Blair, *The Soldier's Friend*, 100. William Cullen and others, including John Coakley Lettsom, claimed that human bodies created "effluvia" that, if "allowed to remain adhering" to the bodies (not washed off or carried away by ventilation) "they become farther charged, till a matter is formed capable of producing" fever. See J. C. Lettsom, *Reflections on the General Treatment and Cure of Fevers* (London, 1772), 6.

[21] Foster, *A Report of Some Proceedings on the Commission for the Trial of the Rebels in the Year 1746, in the County of Surry; and of Other Crown Cases: To Which Are Added Discourses Upon a Few Branches of the Crown Law*, 74-75.

"seasoned" to unhealthy urban environments.[22] But this might not be an unalloyed good. In an inversion of the usual worry that recruits from cities or jails threatened to infect sailors and soldiers, Thomas Trotter noted an instance of a volunteer from the countryside dying within days of arriving aboard HMS *London*, due to not being "under the impressions of accustomed stimuli." Those who were accustomed, like the prisoners just mentioned, had little to fear.[23] According to one eighteenth-century common-place book, "Prisoners in Jails, & Nurses in Hospitals, who are as it were constantly immersed in Miasmata, receive no harm from it while a stranger would immediately receive the infection producing a dangerous Typhus, & would thereby afford a Contagion capable then of infecting the same Prisoners or Nurses."[24] Although a range of medical and social discourse linked members of the lower sort as especially vulnerable to health threats, they also increasingly seemed to constitute a special group with resistance to certain diseases that they could nonetheless spread to others.

This nascent pathologizing of subaltern populations occurred in West Indian towns and prisons, as well. Of course, the primarily rural lived environments of West Indian colonies such as Jamaica differed greatly from British urban environments. Many of the specific health problems differed, too, even though mortality and morbidity rates in both environments were alarmingly high. Still, there is evidence that at least some observers entertained the notion that the poor population—in this case comprising black people—contributed to the disease

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[22] Black, *A Comparative View of the Mortality of the Human Species, at All Ages; and of the Diseases and Casualties by Which They Are Destroyed or Annoyed. Illustrated with Charts and Tables* 39-40.

[23] Trotter, *Medicina Nautica*, I, 211. Gilbert Blane observed "there is a peculiar air and atmosphere in every place, to which those constitutions that are habituated to it, naturally accommodate themselves," and those unaccustomed to a particular environment find it unhealthy. Interestingly, he was discussing environmental differences between ships. See Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy*, 10.

[24] WL, MS. 1755, f. 24r.

environment. Reporting on Antigua in the early nineteenth century, an army medical officer claimed that "defective police" had allowed an "extremely swampy" part of St. John's to become unhealthy. According to the doctor, "amongst the filthiest nations it would be difficult to meet with anything more disgusting than the dwellings of the coloured people there amidst their own mire and the undrained colluvies of the higher land in the neighbourhood." Plainly, the doctor realized that this situation resulted from more than the presence or action of black people. Nonetheless, he thought black people immune to the effects of these conditions. He proclaimed it "evident" that the surrounding military posts could not "be inhabited with any degree of Safety by white troops, tho' it is probable that all of them would agree perfectly well with black soldiers." White soldiers should man "the exposed bleak posts of English Harbour," which black soldiers could not bear.[25]

For colonial authorities and commentators, such situations posed at once problems of security, public health, and racial hygiene. In the 1774 *History of Jamaica*, Edward Long described the jail in Spanish Town as mismanaged and, as a result, dangerously unclean. "This delightful place," wrote Long, included one room "so loaded with filth in general, as to be perfectly pestilential, not only to the miserable wretches who are there confined [felons], but to the poor debtors." Moreover, the build up of "putrid mud and water" on the jail's outer wall "poison[ed] all the neighbouring atmosphere."[26] These failures of institutional management threatened the health of the "promiscuously crowded" prisoners "of all sorts, sexes, and complexions." Long objected especially to confining white debtors and black criminals together, "as if it was intended to shew that incarceration, like death, is a leveler of all distinctions." There

[25] WL, RAMC/210/9, [Reports re inspection of hospitals on Martinique, St. Lucia, Barbados, Antigua, Dominica, Trinidad, St. Vincent, Tobago, Grenada, St. Kitts, Nevis, Montserrat, and Guadaloupe 1815], section on Antigua.

[26] Long, *The History of Jamaica*, II, 14.

is here an echo of concerns in Britain about mixing debtors and felons in jails, but with the added element of disrupting the racial hierarchy at the foundation of Jamaica's economic, political, and social order. Coming as it does immediately following discussion of the unhealthiness of the jail, Long's worry about leveling encompasses this situation. Not only did white debtors in Jamaica have to associate with the worst black people, but they became subject to the same health threats through their confinement together in a crowded, unsanitary environment. The jail eroded the material differences in conditions between the groups, causing physical degeneration and death for blacks and whites alike.

These concerns reprised, albeit with more urgent language, a report from a Jamaican Assembly committee nearly a decade earlier. Even though the Assembly had allocated money in response to reports concerning the jail in 1760, 1761, and 1764, the committee reported that the jail had received no repairs "for many years past." The committee recommended, among other measures, enlarging the jail: partly to enable segregation of black and white prisoners, and partly "to make the same more wholesome and healthy." These were interrelated goals. Plans for modifying the built environment of the prison also included new buildings, which would facilitate segregating groups of prisoners and address the unhealthy lack of ventilation.[27] In a marginal note for an intended second edition of *The History of Jamaica,* Long acknowledged the building of a new jail in 1776, although he did not mention the new jail's conditions or system of management.[28]

Sanitation, Surveillance, and Control

In the formulations just discussed, the poor, military personnel, and slaves effectively

[27] *Journals of the Assembly,* Vol. V (printed 1834), 563-564. Long was a member of the Assembly at this time.

[28] BL Add MS 12405, *The History of Jamaica,* f. 16v.

constituted parts of the disease environment: populations whose crowding, dirtiness, and general living conditions rendered air "impure," making them potential victims of disease and, more perniciously, the likeliest conduits for its spread. Increasingly, then, for doctors, philanthropists, military and naval commanders, slave ship captains, and others, surveillance and sanitation of physical environments were necessary but insufficient strategies for securing the health of the population. Efforts to inspect, clean, and control the bodies of poor and laboring people, and to modify these people's behavior, would have to accompany these other strategies. Philanthropist Jonas Hanway, who was closely involved in managing and promoting the Marine Society, minimized the "difference between the *rich* and the *poor*, only that the poor cannot always be so clean as the rich, but we often see *poor cleanly people*, and sometimes *very dirty rich ones*."[29] Nonetheless, the focus lay on "the common people," with an implication that their poor conditions were partly the result of improper behavior and education. Hanway's 1766 piece, which is nominally addressed to soldiers, makes connections between cleanliness, health, and morality. According to the piece, "it is essential, in an immediate view, to the virtue of the common people, to be clean, whole, and tight in their clothing: as rags and idleness go together, in the same manner as filthiness and vice."[30] The urban poor, the enslaved, and military personnel required surveillance as well as supervision and regulation to make them adhere to habits of cleanliness for their own good, as well as for the health, productivity, and order of society.[31]

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[29] J.H., *The Soldier's Faithful Friend; Being Prudential, Moral, and Religious Advice to Private Men in the Army and Militia* (London, 1766), 14-15.

[30] *The Soldier's Faithful Friend; Being Prudential, Moral, and Religious Advice to Private Men in the Army and Militia* (London, 1766), 14.

[31] The 1774 Health of Prisoners Act cited above, for example, called not just for sanitation and inspection of jails, but also of the prisoners, including the installation of tubs to bath prisoners before they were released from prison. The act connected a population to an environment—the environment partly created the population, and the

Another disease outbreak involving Newgate, in 1752, underscored the far-reaching epidemiological dangers latent in prisons and surrounding urban environments, as well as the extent to which the urban poor constituted a major part of these environments. John Pringle reported on the outbreak in a paper in the *Philosophical Transactions* in 1753. According to Pringle, he, Stephen Hales, and a Dr. Knight decided to visit Newgate to evaluate the effectiveness of the new ventilation system. Despite the system's apparent benefits, the visitors learned that a workman had fallen seriously ill while installing the ventilators. Pringle and Knight spoke with the man at St. Thomas's Hospital, and they diagnosed him with "the true gaol-distemper." During this visit, they met another worker worried that he had the same illness, and he in turn notified them of three other ill workers from the prison, all of whom Pringle and Knight diagnosed with jail fever. Out of the eleven men working for the master carpenter at Newgate, Pringle reported, seven got the fever.[32]

It soon became clear that the disease had spread beyond the workers at Newgate, demonstrating that the living conditions of even the industrious poor made people into elements of the disease environment needing control. When one of the men, Thomas Wilmot, recovered, he asked Dr. Knight to visit his wife, who was at home with a fever. Knight and Pringle found that conditions had allowed the jail fever to spread easily. The husband, wife, and their eight-year-old daughter slept in the same bed, allowing first the daughter and then her mother, "who not only nurs'd her, but continued to lie with her," to become ill. The doctors recommended the help of an apothecary who had familiarity with treating jail fever from "having served in the hospital of the army during the war," once again pointing to overlaps of medicine and public

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population partly created the environment—and identified both together as needing better management in terms of health.

[32] Pringle, "An Account of the Several Persons Seized with the Goal-Fever," 43, 45-47.

health in urban, military, and institutional settings. Unfortunately, Mrs. Wilmot's recovery failed to conclude the outbreak. Her sister fell ill after caring for her, and the doctors found her "in the same bed, and in the same condition, in which we had seen her sister some time before; and in the room with her, in another bed, a son of Wilmot's, a boy of nine years old, ill of the same distemper."[33] In addition, Mrs. Wilmot later told the doctors that her youngest son eventually got the same fever, and that her mother, who had visited "to see and attend them" also fell ill and died of a fever.[34] The apparent ease with which diseases could spread within and between the homes of poor and laboring people became a recurrent theme in medical, philanthropic, and military discourses during the eighteenth century.

Following from conceptions of the poor as part of the disease environment, medical authorities stressed the need for effective surveillance of both population and environment to enable early action to contain epidemics.[35] Richard Mead and others suggested providing rewards to people who first reported "*Infection* in any Place."[36] Despite the broad language, the focus of surveillance was to be the urban poor.[37] Mead suggested having the Overseers of the Poor inspect the homes "of all the meaner sort of the Inhabitants, and where they find them stifled up too close and nasty, should lessen their Number by sending some into better Lodgings, and should take Care, by all Manner of Provision and Encouragement, to make them more

[33] "An Account of the Several Persons Seized with the Goal-Fever," 49-51.

[34] "An Account of the Several Persons Seized with the Goal-Fever," 52.

[35] For a discussion of epidemiological and environmental surveillance as collecting and correlating observations on environment, morbidity, and mortality, see Riley, *Eighteenth-Century Campaign*, chapters 3-4.

[36] Mead, *A Short Discourse Concerning Pestilential Contagion, and the Methods to Be Used to Prevent It*, 39-40.

[37] For example, in discussing precautions against the plague in 1721, Sir Hans Sloane noted the dangers of crowded spaces "and moved that care should be taken about Beggars, Vagrants &c." See BL Add MS 61649, f. 189.

cleanly and *sweet.*"[38] Three decades later, Pringle used the jail fever outbreak that started among the workers at Newgate to argue for surveillance as a public health technique. Inadequate surveillance, he argued, meant that the containment of this outbreak owed much to luck and the initiative of private individuals.

> Had it not been for the accident of our going at that time to Newgate, hearing of the first man's illness. And seeing his companion with him, all these men might have been ill, and not only the public but most of themselves ignorant of the cause. And as for Wilmot's family, they might have received the infection, and even all perished by it, without any person being convinc'd of the danger arising from gaols, or the contagious and malignant nature of the fever, excepting a few in the neighbourhood, which is a remote and obscure quarter of this city.[39]

The commonness of jail fever and its easy spread among the poor, in other words, made effective medical surveillance necessary to safeguard the population, not just in the clear states of emergency about which Mead wrote, but constantly.

For Pringle, it was more than poor people's unhealthy living conditions and lack of information that created a need for constant surveillance of the poor and the disease environment. It was also the precariousness of poor and laboring people's livelihoods. Pringle implies that in the absence of education and supervision, people react to preserve their own health in ways that leave the sick on their own, without care. This was especially a problem, he claimed, among the poor and working classes, because the loss of employment to sickness would be catastrophic for them. Under these circumstances, the appearance of an infectious disease in a neighborhood would result in social breakdown, with the sick and their families shunned--even though this did not occur with the Wilmots. Only constant surveillance and timely interventions

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[38] Mead, *A Short Discourse Concerning Pestilential Contagion, and the Methods to Be Used to Prevent It*. 40-41

[39] Pringle, "An Account of the Several Persons Seized with the Goal-Fever," 53.

could secure the population from unpredictable epidemics.

Yet, such surveillance in British cities remained piecemeal into the nineteenth century. This is by no means to say there was no surveillance of the populace by social and parish authorities, or that governing was a hands-off affair. The late seventeenth and eighteenth centuries saw the proliferation of parish workhouses and schools, as well as of charity and medical associations, but these often ran at cross-purposes or otherwise conflicted.[40] Further, according to William Buchan, magistrates paid too little attention to "general cleanliness." Simply keeping oneself clean was insufficient, he argued, "while the want of it in my neighbour affects my health as well as his own." This justified removing "dirty people" as a "common nuisance," but if this was impossible, he urged others to avoid them and their homes.[41] Ideas for systematic, large-scale, compulsory mechanisms of medical surveillance and intervention in British cities and towns, however—as opposed to the reports required from ship captains and colonial governors in the 1790s and early 1800s concerning infectious diseases—failed to gain much purchase before the period after cholera reached Britain in the early 1830s, and even then they remained localized.[42]

Surveillance and regulations for managing discipline and health were more organized and

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[40] On this proliferation, see Paul Slack, *From Reformation to Improvement: Public Welfare in Early Modern England* (Oxford: Clarendon Press, 1999), Ch. 6, esp. 127-33.

[41] Buchan, *Domestic Medicine*, 124-25.

[42] For example, Physician John Haygarth's proposal in the early 1790s for a government-organized national surveillance network to eliminate smallpox failed in the face of political opposition. See Chapter 4 below. According to Elliot Arthy, writing in 1798, expectations of yellow fever on merchant ships returning to Britain had developed to the extent that it was "now thought requisite, and become regular, for the captains of West-Indiamen, particularly those from Jamaica, on their arrival home, to report to proper health-officers, appointed for that purpose, the state of the health of their crews, that, in case of sickness, the necessary steps may be taken to prevent the propagation of the Yellow Fever on-shore." Arthy, *The Seaan's Medical Advocate*, 94-5. In addition, quarantines of ships from certain regions (particularly the Mediterranean) occurred several times earlier in the eighteenth century. For the order to the governors in 1806, see TNA: PRO CO 137/117/20, ff 146r-146v, Sir Stephen Cottrell to Sir George Shee, 1 April 1806.

intrusive during the eighteenth century in the army, navy, institutions such as hospitals and other charities, and on slave ships. Navy regulations for hospitals and health care more generally became increasingly carceral during the eighteenth century.[43] Certainly, these regulations aimed to prevent desertion, an ever-present issue in the navy. They simultaneously aimed to create boundaries to the spread of disease and to promote discipline aboard ships. No women other than sailors' wives, for example, were allowed aboard naval vessels, and then only in port.[44] Leonard Gillespie nonetheless noted in his journal in 1787 "at this time there is on board here four Prostitutes who have infected three or four persons" with venereal diseases, despite them showing no signs of disease.[45] Here again emerges the idea that people can somehow—whether through seasoning or another mechanism—remain apparently unaffected by a disease and yet still spread it. Poor or otherwise socially marginalized people such as inmates of jails and prostitutes were the usual targets of such observations, justifying increasing coercion from doctors and other authorities. Even closely enforced regulations on movements between ship and shore, institution and outside environment could fail to achieve their goals. Thomas Trotter attributed multiple outbreaks of smallpox on naval vessels in the 1790s primarily to people coming aboard ships in harbor, especially sailors' wives.[46]

The need for close surveillance and control of the bodies of sailors aboard ships also

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[43] Geoffrey Hudson identifies British military and naval hospital institutions during the eighteenth century as "police operations first and foremost." See Geoffrey L. Hudson, "Internal Influences in the Making of the English Military Hospital: The Early-Eighteenth-Century Greenwich," in *British Military Medicine, 1600-1830*, ed. Geoffrey L. Hudson (Amsterdam and NewYork: Rodopi, 2007), 267 and the rest of the essay, more generally.

[44] *Regulations and Instructions Relating to His Majesty's Service at Sea. Established by His Majesty in Council*, 200.

[45] TNA: PRO ADM 101/102/4, 10 Dec. 1787. This issue would rise to national prominence during the nineteenth century, contributing to the passage of the Contagious Diseases Acts. See Judith Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State* (Cambridge and New York: Cambridge University Press, 1980); Philippa Levine, *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire* (New York: Routledge, 2003).

[46] Trotter, *Medicina Nautica*, I, 386.

seemed apparent. A 1757 pamphlet from the Marine Society suggested that naval captains divide their crews into "classes," each supervised closely by an officer. The officers, in the suggested system, would use their increased abilities of surveillance to ensure "that every man be *clean* and *tight*, and their *filthiness* and *rags* punished as *criminal*." Following this and several other suggestions would supposedly make British naval vessels "strangers to epidemical distempers and nothing but *lead* or *iron* would make any impression on our brave Seamen."[47] In fact, such a system already existed in the navy by midcentury. In 1755, for example, Vice Admiral Thomas Smith issued regulations to one of his captains "For the more effectual Keeping clean the men…which must greatly conduce to their Health." These regulations established a watch system dividing the crew into groups, each under the supervision of a lieutenant, who was in turn to subdivide his group into small groups supervised midshipmen. These officers had responsibility for inspecting each sailor's clothes and bedding twice a week, making sure "that the men are always kept tight," and ensuring that excessively drunk sailors get into their hammocks.[48] This system became general in the navy during the second half of the eighteenth century: to such a degree that the famous Scottish naval physician, Gilbert Blane, claimed it not only provided a necessary compulsion to sailors but "that they expect it" rather than consider it "a hardship."[49] Pringle emphasized the importance of personal cleanliness for the health of ships' crews, noting that Captain Cook personally inspected his crew once a week, "and saw that every

[47] *A Letter from a Member of the Marine Society. Shewing the Piety, Generosity, and Utility of Their Design, with Respect to the Sea-Service, at This Important Crisis. Addressed to All True Friends of Their Country*, Second ed. (London, 1757), 33.

[48] BL, Add MS 35193, Bridport Papers Vol. III, General Correspondence Vol. I, Smith to Captain James Galbraith, 13 Nov. 1755, ff. 9, 11. The midshipmen, however, were "not to Interrupt the men in Mirth & good fellowship, while they within the Bounds of Moderation, the Intention of it being to prevent excessive Drinking."

[49] Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy*, 13-15.

man had changed his linen, and was in other respects as clean and neat as circumstances would permit."[50] Achieving bodily cleanliness became a growing focus of general orders in the armed forces, which established increasingly specific guidelines for keeping people, clothes, and physical environments clean and dry, with enforcement through close inspection and punishment.[51]

As this discussion suggests, in naval and other institutional contexts such as slave ships, strategies of environmental sanitation were inextricable from authorities' obsession with enforcing personal cleanliness amongst poor, enslaved, and military populations. The logs of slave ship captain John Newton in the 1750s display considerable attention by Newton to sanitation aboard his ships. For instance, immediately following a brief description of the death of a slave from "a Lethargick disorder'd [*sic*]" comes a statement that the ship's crew had "Scraped the rooms, then smok'd the ship with, Tar, tobacco & brimstone, for 2 hours afterwards wash'd with vinegar."[52] Despite their proximity in the log, it is unclear whether the death and the sanitation measures directly related to one another. These were common measures for preserving the health of populations aboard ships and in other crowded environments during the eighteenth century.[53] Several other references to washing enslaved people's bodies and "the rooms" on the

[50] Pringle, *A Discourse Upon Some Late Improvements of the Means for Preserving the Health of Mariners*, 26. Cook had gained a reputation for successfully managing the health of sailors on long voyages.

[51] For a naval example putting together bodily cleanliness, ventilation, control over people's movements, and preventing "Peoples easing themselves in the Hold, or throwing any Thing there that may occasion Nastiness," see *Regulations and Instructions Relating to His Majesty's Service at Sea. Established by His Majesty in Council*, 200.

[52] NMM, LOG/M/46, 9 Jan. 1750/1, p. 49.

[53] For a nearly identical example from the a slave ship in the 1690s, see Thomas Phillips, *A Journal of a Voyage Made in the Hannibal of London, Ann. 1693, 1694, from England, to Cape Monseradoe, in Africa; and Thence Along the Coast of Guiney to Whiday, the Island of St. Thomas, and So Forward to Barbadoes. With a Cursory Account of the Country, the People, Their Manners, Forts, Trade, &C.* (n.d.), 188, 230. This is not, however, to say that such practices were universal in the slave trade, or that they were necessarily effective. Numerous observers, after all, claimed to be able to identify a slave ship in part by its stench, even from a distance. For example, see "Minutes of the Evidence Taken before a Committee of the House of Commons, Being a Select

ship appear in the log for the same voyage, one of which explicitly connects these practices to disease control. The entry for 22 June 1751 states: "In the forenoon being pretty warm, got up the Men, & wash'd all the Slaves with fresh water I am much afraid of another ravage from the flux, for we have had 8 taken within these few days."[54] Similarly, the captain of HMS *Brunswick* reported using a combined approach of personal cleanliness, disposal or fumigation and ventilation of clothes and bedding, and cleaning the ship to control "a Malignant Fever" in 1791.[55] Efforts to secure the fitness of confined laboring populations during the eighteenth century focused on the cleanliness of both the built environment and of the people's bodies in it, especially those of the poor.

In addition to such reactive approaches for containing epidemics, commanders and doctors used inspection and enforced bodily cleanliness as generalized techniques of security concerning new recruits for the armed forces. As in the slave trade, military and naval authorities looked to ensure individual fitness and to preserve the health, and consequently the effectiveness and value, of the population by preventing recruits from spreading disease. One navy captain told Parliament in 1789 that he had had difficulty finding fit sailors aboard a slave ship, and the state of those he impressed earned him a reprimand "for bringing such men into the service, who were more likely to breed distempers, than be of use."[56] Another captain refused to endanger the health of his crew by taking slave ship sailors aboard, as they looked unhealthy and "were the

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Committee, Apointed on the 23d Day of April 1790, to Take the Examination of the Several Witnesses Ordered by the House to Attend the Committee of the Whole House, to Whom It Is Referred to Consider Further of the Circumstances of the Slave Trade," in *House of Commons Sessional Papers*, vol. 73, 11.

[54] NMM, LOG/M/46, 22 June 1751, p. 96. For other more general references to sanitation on this voyage, see the entries for 12 June and 29 June 1751.

[55] Trotter, *Medicina Nautica*, I, 438.

[56] *Abridgment of the Minutes of the Evidence, Taken before a Committee of the Whole House, to Whom It Was Referred to Consider of the Slave-Trade, 1791*, ([1791]), 57. He claimed this was not an unusual occurrence.

most filthy vagabonds he ever saw."[57] Thomas Trotter endorsed such actions, recommending that officers closely inspect newly arrived sailors, and that they refuse to take aboard those who appeared ill. Further, "such of their cloaths as are foul, and of little worth, should be destroyed, and the residue washed and fumigated," the sailors' bodies must undergo thorough washing, and those with "neglected and filthy" hair should have it cut or even shaved off entirely.[58] Gilbert Blane had made almost identical recommendations for preparing newly pressed sailors in the 1780s. He approvingly noted that after his first publication, authorities had set a ship at Portsmouth for receiving, stripping, cleaning, and freshly clothing recruits.[59] In 1778, the Marine Society's directors justified the Society's practice of providing clothes for "Landmen Volunteers" entering the navy. They argued that doing so would preserve crews from a source of "infection which from the very Nature of things must be often conveyed in the Clothing of very poor very thoughtless Persons."[60]

Doctors and commanders in the army employed similar strategies for incorporating people's bodies into a productive laboring population, and for securing that population from disease. According to regulations from the late 1790s, regimental surgeons were "not to suffer any man to pass, who has not at his examination been stripped of all his clothes" and observed to have no signs of infirmity. Those who failed this inspection were "to be rejected as unfit for

[57] "Minutes of the Evidence Taken before a Committee of the House of Commons, Being a Select Committee, Apointed on the 23d Day of April 1790, to Take the Examination of the Several Witnesses Ordered by the House to Attend the Committee of the Whole House, to Whom It Is Referred to Consider Further of the Circumstances of the Slave Trade," 12. Both of these statements contradicted testimony from senior naval officers and others extolling the slave trade as a nursery for sailors.

[58] *Medicina Nautica*, I, 442.

[59] Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy*, 8-9, 11, 60.

[60] NMM, MSY/B/2, Marine Society Fair Minute Book, 2 Oct. 1777-8 July 1779, p. 232.

service."[61] Citing the problem of disease entering the army with recruits from unhealthy environments such as towns and jails, Robert Jackson recommended a combination of isolation and enforced cleanliness to protect the military population. Even if military authorities only suspected a recruit could be carrying infection, "the recruit ought to undergo a most rigid quarantine." This would include authorities stripping the recruit naked, destroying or "purif[ying]" his clothes, cutting his hair short, washing his entire body, and giving him new clothes to wear. Jackson stated that this "purification" must apply not just to recruits, but also to "convalescents from infected hospitals, deserters, parties who have been guard over infected hospitals or prisons."[62] Regimental surgeons in the 1810s continued to have orders to conduct medical inspections of all recruits, no matter who had declared them healthy and fit for service.[63]

Likewise, authorities' population-focused concerns about epidemic disease combined with aims of promoting order to prompt extensive regulations in hospitals, charities, and workhouses during the eighteenth century. These included not just restrictions on food, drink, visitors, and building upkeep and sanitation, but also regulations focused on controlling inmates' bodies. For example, a 1732 piece reported that the regulations of Kingston upon Hull's Charity House stipulated that the master of the house search all newly admitted people, have them "stript to their Skin, so that such as are nasty may be well washed, new clothes provided for them, their old ones baked in an Oven to destroy Vermin."[64] As the above examples suggest, such coercive

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[61] Blair, *The Soldier's Friend*, 136-37.

[62] Jackson, *An Outline of the History and Cure of Fever*, 373-74.

[63] WL, RAMC/210/3 [Observations re Regimental Hospitals and duties of the Brigade Surgeon, c. 1811-1823].

[64] *An Account of the Several Work-Houses for Employing and Maintaining the Poor; Setting Forth the Rules by Which They Are Governed, Their Great Usefulness to the Publick, and in Particular to the Parishes Where They Are Erected. As Also of Several Charity Schools for Promoting Work, and Labour*, Second ed. (London: Jos. Downing, 1732), 175.

practices for enforcing personal cleanliness became increasingly widespread over the course of the eighteenth century, and they did so as part of efforts to engineer healthy environments. Naval officers inspecting the Haslar Naval Hospital during the American Revolutionary War recommended, among other things, a new bathing room "on the landing place" and the destruction or fumigation of incoming patients' clothes. The Comptroller of the Navy overruled the objection that hospital officials lacked authority to destroy sailors' clothes. He suggested monetary compensation, but the need "to prevent Infection being carried into the Hospital" trumped sailors' rights to property and, by implication, to privacy.[65] Military hospital regulations in the early nineteenth-century followed from these examples in emphasizing medical inspection and bodily cleanliness of patients on admission. The regulations also continued to put together personal and environmental cleanliness as crucial to managing health and discipline.[66]

These and other strategies for personal and environmental cleanliness simultaneously reflected a view of members of laboring populations as commensurate and aimed to create that commensurability, and thus predictability. Efforts to enforce uniform cleanliness of clothes and bodies constituted a generalized strategy for preserving the health not primarily of individuals but of confined, poor, and laboring populations. Institutional regulations for shaving and other personal grooming practices operated similarly in aiming to remove sources of infection and variation between individuals. John Newton's log for a slaving voyage in 1752-1753 mentions shaving slaves at least twice. An entry for 12 May 1753 includes the line "Shav'd all the Slaves."

[65] WL, MS. 5992, [Observations by Charles Middleton, as Comptroller of the Navy, on two reports on conditions at Haslar Hospital, Gosport], f. 2. Trotter advocated such measures, though he claimed that authorities' coerciveness in employing them--in fact, in using them for punishment--provoked resentment from sailors, defeating the purpose. The tubs at Haslar, he wrote, were like "those used in slop ships, for purifying new-raised men; but the seamen had such a dislike to them, that it was found impracticable to get a rheumatic patient to bathe, because they reminded them of *scrubbing*, by way of punishment, on board." See Trotter, *Medicina Nautica*, I, 27.

[66] WL, RAMC/210/3.

Another entry for 24 May 1753 is more specific: "Shav'd the slaves [*sic*] fore heads."[67] These references appear among the numerous references to crewmembers having "Wash'd the slaves" and decks. Tracts on managing military and naval hospitals also present shaving as a hygienic routine that would help prevent the spread of disease from individuals.[68] Army regulations for regimental hospitals at the end of the eighteenth century established a regimen of personal cleanliness that included being "shaved twice, or three times, a week."[69] These strategies targeted the bodies of individuals as a means for altering the epidemiological environment through their cumulative effects on the bodies of many people.

Hospitals and Charities as Environmental Interventions

Roy Porter and Guenter Risse point out that in 1700 no medical hospitals existed in Britain outside of London.[70] This situation changed dramatically over the course of the eighteenth century. Between 1720 and 1750 five new hospitals opened in London, and following the 1729 establishment of the Edinburgh Royal Infirmary, a proliferation of institutional establishments occurred in provincial cities and towns.[71] The institutions of national government had little to do with this wave of hospital establishment in Britain. When Parliament voted funds to establish hospitals, they went to support military and naval hospitals; for example, it allotted £12,000 for a naval hospital in Portsmouth in 1745.[72] On the other hand, the foundation of the

[67] LOG/M/46, 12 May 1753, 24 May 1753, pp. 209, 215.

[68] Trotter reported that the regulations for Haslar directed nurses to make sure that patients' beards were shaved; they imply that the patients, if able, are to shave themselves. Trotter, *Medicina Nautica*, I, 30.

[69] Blair, *The Soldier's Friend*, 133.

[70] Roy Porter, *Blood & Guts: A Short History of Medicine* (New York and London: W.W. Norton & Company, 2002), 137; Risse, *Hospital Life in Enlightenment Scotland*, 11-12.

[71] Roy Porter, *English Society in the 18th Century* (London: Penguin Books, 1990), 284.

[72] "Historical Chronicle," *The Gentleman's Magazine,* Vol. 15 (London, Jan. 1745), 51, and March 1745, 163.

vast majority of public medical institutions and charities resulted from subscriptions and donations from individuals.[73] Some of these institutions, such as the Foundling Hospital, solicited and received governmental support, albeit for a limited time. Overall, the government in Britain and its colonies, unlike that in France and its colonies, developed no centrally organized framework for overseeing or administrating hospitals before the 1830s.[74] This government noninvolvement occasionally comes up in print materials, by way of boasts about not needing government help and calls for government regulations, though not management.[75]

Although hospitals had a reputation as public health threats, authorities increasingly conceived of them as tools for managing populations and intervening in wider disease environments.[76] Hospital establishments were in part attempts to expand and regularize the provision of health care and in so doing to improve the health of laboring populations. The large naval hospitals founded during the 1740s and 1750s epitomized this approach to governing. They constituted part of a rationalizing and centralizing reform agenda at the Admiralty during this period, an agenda that had broader political and social aims.[77] The hospitals augmented a

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[73] Kathleen Wilson, *The Sense of the People: Politics, Culture and Imperialism in England, 1715-1785* (Cambridge: Cambridge University Press, 1995), 74.

[74] Risse, *Hospital Life in Enlightenment Scotland*, 13; Karol K. Weaver, *Medical Revolutionaries: The Enslaved Healers of Eighteenth-Century Saint Domingue* (Urbana and Chicago: University of Illinois Press, 2006), 25, and Ch. 2.

[75] Aikin, *Thoughts on Hospitals*, 6-7. For an example from Ireland, see Edward Foster, M.D., "Appendix" in *An Essay on Hospitals. Or, Succinct Directions for the Situation, Construction, & Administration of Country Hospitals* (Dublin, 1768), 13-4, 34.

[76] Lettsom and his supporters in particular came to view hospitals as flawed--indeed, counterproductive and dangerous--tools for managing the health of individuals and the population. They promoted outpatient dispensaries as an alternative. Robert Kilpatrick, "'Living in the Light': Dispensaries, Philanthropy and Medical Reform in Late-Eighteenth-Century London," in *The Medical Enlightenment of the Eighteenth Century*, ed. Andrew Cunningham and Roger French (Cambridge: Cambridge University Press, 1990), 267-68.

[77] One that was politically controversial, and that prized not only administrative rationality, but also strict discipline and subordination. See Sarah Kinkel, "Disorder, Discipline, and Naval Reform in Mid-Eighteenth-Century Britain," *The English Historical Review* 128, no. 535 (2013). Kinkel does not mention the naval hospitals,

developing transoceanic network of smaller naval hospitals, and had the aim of ending the diffusely organized system of contracting for the care of sailors in private houses ashore, replacing it with a means for supervising medical care and retaining control over sailors. Of course, for the most part, hospitals and dispensaries were tools for reacting to disease or injury, but their founders and administrators also had broader preventive aims of securing the population from disease and inculcating habits of subordination and health.[78]

During the final third of the eighteenth century, planters and overseers increasingly attempted to intervene in the epidemiological environment by exerting control over the context and practices of childbirth. Absentee planter Joseph Foster Barham's attorneys in Jamaica partly blamed slaves' household conditions for the failure of Island Estate's enslaved population to become self-sustaining. Since they had been "so unsuccessful with the Children that are born in the Negro houses," they planned to have the slaves build a dedicated lying-in hospital on the estate. Further, they intended the hospital to stand near the estate's "old Great House." This choice implied not just an aim of removing childbirth to a supposedly cleaner, more healthy environment, but also aims of increasing surveillance of and control over the practices surrounding birth.[79] The attempt to increase surveillance and control fit into longstanding practices reported on the Barhams' Jamaican plantations. In 1788, the attorney, John Vanheelen, expressed support for a plan of Barham's "for encouraging the Negroes to save their Children." Vanheelen's letter makes no clear statements about what this plan entailed, but it does briefly mention as an existing practice "giving the Children one good wholesome Meal every day Under

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but they clearly were compatible with the program that the "authoritarian Whigs" instituted at the Admiralty during this period.

[78] Wilson, *The Sense of the People*, 78-79.

[79] Oxford, Bodleian Library, MS. Clar. dep. c. 360/2, Ridgard and Robertson to Joseph Foster Barham, 7 Feb. 1828.

the Overseers Eye." As basic as this was, it implied that enslaved parents lacked the ability properly to care for their children. Removing an aspect of childcare from enslaved parents to the overseer's control and supervision appears in Vanheelen's letter as necessary, though insufficient on its own, for maintaining the enslaved population.[80] The Duchess of Chandos's attorney reported a similar practice on Hope Estate in the late 1770s, and suggested that it contributed to the slaves thinking of the Duchess "as their Protector, & Dependance."[81]

The manager of Hope Estate in 1788 developed plans to take this intervention into the disease environment and the domestic lives of enslaved people further still. He informed his employer, the Duke of Chandos, that mortality on most plantations among young children was unnecessarily high, because they had inadequate supervision by old people "at the Negro houses" while their parents worked in the fields. To avoid the unhealthy behavior that supposedly resulted from this situation, the manager planned "to build a small House under the Overseer's Eye, under the Care of proper People to provide their Food and every other Necessary." Hibbert, the manager, cast his proposal as following from successful practices elsewhere in the West Indies and, indirectly, Britain: "I have seen this Mode practiced with great Success in Hispaniola where the Proprietors take great pride in shewing [*sic*] perhaps Sixty or Seventy fine Children all Kept as clean and looking as healthy as at a Charity School in England."[82]

Writers of medical and plantation management manuals agreed with these ideas. In the second volume of *The Sugar-Cane,* James Grainger claimed to "have universally observed that negro women, who had been delivered in their own houses, were placed in circumstances of

[80] Oxford, Bodleian Library, MS. Clar. dep. c. 357, bundle 1, John Vanheelen to Jos. Foster Barham, 23 June 1788.

[81] HL, STB Box 26, Edward East to the Duchess of Chandos, 10 Sept. 1778.

[82] HL, STB Box 26, Robert Hibbert to the Duke of Chandos, 28 May 1788.

dirtiness and exposure very ill fitted to their situation." The language echoes that of doctors debating inoculation and the merits of treating poor people in their own homes in Britain during the period. Grainger recommended as a remedy for the problem that all plantations should have a dedicated "lying-in house."[83] The writer of an advice manual from 1790, Robert Thomas, argued for well-built and organized hospitals with segregated areas for enslaved women to give birth on every plantation. As did Vanheelen, Thomas presented such hospitals as a solution to mortality arising from the poorly built and kept homes of slaves, as well as from overseers' lack of supervision and control when the sick and women giving birth remained in their homes. As was so often the case, then, this suggestion blended coercion, humanitarian impulses, and economic arguments. Thomas, however, acknowledged that slaves' well-founded association of plantation hospitals with punishment and coercion presented a major problem that planters needed to overcome, even as he advocated tightening plantation authorities' control over the lives of enslaved people. According to Thomas, plantation hospitals should "by no means ever be used as a place of confinement for ungovernable and run-away slaves, as is the common practice on most plantations."[84] This statement paralleled concerns in Britain and in the armed forces that strategies for managing the health of poor and laboring populations would be ineffective if coercion and control (widely considered necessary for managing these populations) went too far and drove people into resistance or avoidance.

In the late 1740s, the promoters of the London Smallpox Hospital, including Stephen Hales, positioned the hospital as a means of improving the urban lived environment. It would accomplish this in part by segregating people with smallpox from the rest of the population.

[83] Grainger, *The Sugar-Cane: A Poem. In Four Books...* II, 204-05.

[84] Thomas, *Medical Advice to the Inhabitants of Warm Climates*, x-xi.

Given the infectiousness of smallpox and the "great uneasiness" it caused, the hospital's promoters argued that taking in people with smallpox "from a neighbourhood into an hospital, is removing misery and destruction from it [the neighborhood]."[85] Quarantine was hardly a new technique for preventing the spread of disease by this point, but the smallpox hospitals were a long-term response to an ever-present endemic disease rather than being simply short-term responses to epidemics. As one late-century supporter of general inoculation (though not of inoculation hospitals) put it, the large number of people in London who had smallpox in an average year constituted a "copious magazine of contagion."[86] By combining segregation and inoculation, hospitals aimed to prevent epidemics arising from individual cases of smallpox while also helping engineer the poor urban population to be increasingly resistant to smallpox in the future. This would reduce individual suffering and strengthen society, as it would minimize both the incidence of disease and death, and the possibility of large-scale, disruptive epidemics.[87] The smallpox hospitals, then, like lazarettos in ports, were tools for managing the constant, and growing, threat of infectious disease in urban environments.

More broadly, one of the aims of voluntary hospitals in British cities was to improve poor people's access to medical care from physicians, surgeons and apothecaries. Yet, the specific idea that improving the health of the population bore some relation to the number of doctors providing care to a given group came into sharpest focus initially less in British cities than in the

[85] *Gentleman's Magazine,* XVII (1747), 270.

[86] W. Black, *Observations Medical and Political, on the Small-Pox, and the Advantages and Disadvantages of General Inoculation, Especially in Cities...* 2nd ed. (London: J. Johnson, 1781), 67. In physician Alexander Monro's view, quarantine alone could not check a smallpox epidemic, because infected people could spread smallpox before they showed any symptoms, and, in any event, the early symptoms resembled those of other diseases. See Alexander Monro, *An Account of the Inoculation of Small Pox in Scotland* (Edinburgh: Printed for Drummond, and J. Balfour, 1765), 8-9.

[87] For a detailed examination of the development of inoculation as a technique of security across the British Atlantic during the eighteenth century, see Chapter 4 below.

West Indies and in the armed forces. As early as the mid-1760s, at least one absentee planter wanted to know on how many plantations and across how much distance his plantation's surgeon worked in Jamaica. The planter, Joseph Foster Barham, wanted reassurance that the surgeon would be able to devote adequate attention to the health of the enslaved people on Barham's plantation. The surgeon briefly stated that he would, and that he had made a partnership with another man to attend one of the other plantations on which he practiced medicine.[88]

During the 1780s, as the health of the enslaved population rose to prominence in transatlantic political debates about slavery and the slave trade, so did questions about the number of enslaved people individual medical practitioners had under their care. The written testimonies of several plantation doctors to the Jamaican Assembly, which forwarded them to Parliament in 1789, include prefaces establishing the doctors' expertise with claims of having "had the physical Care" of thousands of slaves.[89] Abolitionists pointed to the multiple plantations and large numbers of slaves plantation doctors contracted to visit as proof that the enslaved population lacked proper health care. For example, one writer scornfully commented on the testimony of Jamaican plantation doctor John Quier, in which Quier claimed to have several thousand slaves under his care at once:

> I apprehend it will be thought much easier, under such circumstances, to find fault with the ignorance, obstinacy, and inattention of such negroes, than to take care of them, inform, persuade, or watch over them for good. Once, twice, or thrice in a week, to gallop to a plantation, to take a peep into the hospital, or hot-house, as it is called, write in a

[88] Oxford, Bodleian Library, MS. Clar. dep. c. 357, Robt. Pinkney to [Joseph Foster Barham], 16 May 1766.

[89] "Report of the Lords of the Committee of Council Appointed for the Consideration of All Matters Relating to Trade and Foreign Plantations; Submitting to His Majesty's Consideration the Evidence and Information They Have Collected in Consequence of His Majesty's Order in Council, Dated the 11th of February 1788, Concerning the Present State of the Trade to Africa, and Particularly the Trade in Slaves; and Concerning the Effects and Consequences of This Trade, as Well in Africa and the West Indies, as to the General Commerce of This Kingdom," 277-79.

> book, "bleed this," "purge that," "blister another," "here give an opiate," "there the bark," is not, in my opinion, taking care of, though it may be called taking charge of, the healths of 4000 or 5000 negroes.[90]

This situation, in the view of abolitionists, demonstrated planters' lack of interest in enslaved people's wellbeing, as well as planters' failure to govern properly. As historian Richard Sheridan has noted, "white patients in the racist society of Jamaica commanded the lion's share of limited medical resources." According to Sheridan, it is therefore "difficult to believe…that doctors made frequent visits to slave hothouses."[91]

The author of the eighteenth-century piece just quoted followed up with a comparison of provisions for medical care on plantations to those in the military and navy—a tactic that fit a broader trend of such comparisons in abolition debates, as well as the growing emphasis on the health of sailors and soldiers. According to the piece, the allocation of medical personnel in the army and navy demonstrated the absolute inadequacy of plantation medical care. If it was judged necessary that each regiment in the army and each ship in the navy have a surgeon and at least one surgeon's mate, how could anyone expect one doctor to cover several plantations and thousands of slaves? One army doctor, in a letter printed in William Lempriere's *Practical Observations on the Diseases of the Army in Jamaica,* emphasized the need for frequent, regular medical observation of soldiers in the West Indies. Not only was the surgeon's frequent presence necessary to ensure that hospital staff conscientiously executed their duties, it was also necessary for noticing signs of disease early and for responding to rapid changes in the course of a disease. The doctor claimed that in his regiment, the medical personnel paid close attention to soldiers' health. The surgeon or his assistant attended the regiment's twice-per-day parades, in addition to

[90] A Jamaica Planter, *Notes on the Two Reports from the Committee of the Honourable House of Assembly of Jamaica,* 60.

[91] Sheridan, *Doctors and Slaves,* 308-9.

"inspect[ing] narrowly the countenances of every man on the parade" twice each week and visiting the hospital at least three times every day.[92]

The ratio of patients to doctors figured in late eighteenth- and early nineteenth-century debates among doctors and commanders in the army about the utility of regimental compared to general hospitals. Opponents of general hospitals, such as Robert Jackson, argued not only that large general hospitals created environments conducive to the spread of disease, but also that they encouraged idleness and indiscipline, which had dangerous ramifications for military effectiveness and health. Regimental hospitals, they argued, allowed for closer supervision of patients by doctors who were familiar with their individual constitutions.[93] Supporting many smaller regimental hospitals, in this view, was a far superior means for preserving the health of the military population in general than was the use of large, centralized hospitals. Further, the establishments of these smaller hospitals should follow set ratios with the number of soldiers in a location. By the 1810s, a report on the military hospital at Monks Hill, Antigua compared the hospital "to a plantation sick house of an inferior description for negroes." The report claimed the army needed to build a new hospital "capable of containing 75 Sick on the admitted calculation in tropical climates of 10 sick to every 100 men in barracks."[94]

Hospitals and related establishments outside the armed forces also combined efforts to improve health and to promote social discipline. To gain admission to a hospital in Britain or Jamaica required permission from someone in a position of authority. For a slave seeking admission to a plantation hospital, this person was a white doctor, overseer, or plantation owner.

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[92] Lempriere, *Practical Observations*, I, 283-86.

[93] See WL, RAMC/210/1 [Letters and Reports of William Ferguson, Inspector General of Portuguese Military Hospitals, 1811-1813]; Jackson, *A Treatise on the Fevers of Jamaica*, 274; *An Outline of the History and Cure of Fever*, 20.

[94] WL, RAMC/210/9, section on Antigua.

For British voluntary hospitals, admission usually required the prospective patient to acquire a recommendation from a contributor to the hospital. Bath's General Hospital differed only slightly, requiring a medical report "together with a certificate of the poverty of the patient, attested by some person of credit."[95] Gaining a recommendation therefore affirmed existing social hierarchies, as J. C. Lettsom suggests in his 1775 piece *Of the Improvement of Medicine in London,* concerning London's General Dispensary: "Each patient is admitted by a printed letter of recommendation, signed by a governor; and, when cured, returns thanks."[96] It became a widespread requirement that patients return thanks to their recommenders after receiving treatment at voluntary hospitals and dispensaries.[97] Later in the piece, Lettsom makes the hierarchical relationship even clearer, stating:

> mutual interests must perpetually subsist, a spontaneous gratitude will naturally arise in the poor towards their benefactors, to repay by their industry those obligations which their unavoidable sickness had incurred; they not only meet their families with pleasure, but they are animated to follow their daily labour with redoubled chearfulness [sic] and vigor.[98]

This statement idealizes the patient-patron relationship, but it nonetheless highlights the importance of that relationship in eighteenth-century British hospitals. They offered medical

[95] *The Gentleman's Magazine,* Vol. 17, (June 1747), 270.

[96] Lettsom, *Of the Improvement of Medicine in London*, 7.

[97] For example, see *Rules and Orders for the Government of the Worcester Infirmary* (Worcester, 1799), 8; *Plan of the Surrey Dispensary, for Attending Lying-in Women, and Administering Advice and Medicines to the Poor Inhabitants Off the Borough of Southward, and Places Adjacent, at the Dispensary, or at Their Own Habitations. Instituted in the Year 1777* (London, 1799), 15. The latter institution's regulations stipulated cutting off from future assistance women who failed to thank their patrons. For a like requirement from a dispensary in the 1820s, see LMA, SC/GL/NOB/C/047/1-047/2 [C.47.2], ["City Dispensary, Grocers'-Hall Court, Poultry, Near the Mansion House, For the relief of the Diseased Poor, In all cases requiring Medical and Surgical Assistance"].

[98] *Of the Improvement of Medicine in London*, 21.

attention that, although it reflected an interest in improving people's lives, required poor patients' subordination as objects of charity.[99]

Charity hospitals for the poor in Britain made acceptance of behavioral regulations and inspection requirements for receiving aid. Lying-in hospitals especially instituted rigorous criteria for women looking to gain admission. London's Lying-in hospital, for instance, required "a proper certificate or an Affidt. of their Place of Settlemt." unless a reputable person provided security. Even so, according to the regulations, "no Woman for whom Security shall be given shall be admitted if not married."[100] These requirements were commonplace. The Lying-in Hospital went further in restricting admission, requiring that hospital governors investigate "& be thoroughly satisfied" of the moral character of any woman they might recommend for admission. This statement came in the context of complaints that governors had failed in their trust and that women had often gained admission despite being ineligible or behaving improperly in the hospital. The hospital was intended only for "the wives of poor industrious Men who are not pensioners or ordinarily receive Alms" and cannot afford to "make a proper Provision for their Wives."[101] In 1773, Parliament loosened such restrictions to allow unmarried women, but "only if they provided security to the parish to cover the maintenance of the child in settlement disputes."[102] The regulations of Bath's General Hospital in the late 1740s restricted access to the hospital partly on geography. They required would-be patients to remain at their homes and warned that all who came to Bath without following admissions procedures and first having

[99] Adrian Wilson, "The Politics of Medical Improvement in Early Hanoverian London," in *The Medical Enlightenment of the Eighteenth Century*, ed. Andrew Cunningham and Roger French (Cambridge: Cambridge University Press, 1990), 11-13; Fissell, *Patients, Power, and the Poor in Eighteenth-Century Bristol*.

[100] LMA, H10/CLM/A1/1/1 [Lying-In Hospital Minutes], 27 June 1750.

[101] LMA, H10/CLM/A1/1/1, 27 June 1753, 22 Aug. 1753.

[102] Cody, *Birthing the Nation: Sex, Science, and the Conception of Eighteenth-Century Britons*, 284.

"leave given to come, will be treated as vagrants; as the act of parliament for the regulation of the *hospital* requires."[103] Such requirements were common, aiming to avoid expending money on people from out of town—and thereby to control the mobility of the poor.

The intertwining of health care and affirmations of social discipline continued inside hospitals. According to historian Guenter Risse, eighteenth-century British hospitals "were part of a comprehensive program to institutionalize the poor." Although entering a hospital usually was voluntary,[104] after gaining admission poor patients became subject to a rigorous disciplinary regime in which they had little voice, though patients in voluntary hospitals, as in military, naval, and plantation hospitals, often subverted or resisted institutional control.[105] Once they had gained admission, both in-patients and out-patients faced dismissal for infractions. The London Lying-in Hospital's regulations state that all in-patients and employees under the hospital matron's supervision must follow her instructions "in all things relating to her office under the pain of being discharged."[106] Other institutions had similar regulations, and these often were clear that punitive dismissal also meant a permanent ban from assistance.[107] Among other measures, voluntary hospitals in Britain and plantation hospitals in Jamaica segregated patients according to sex, "to prevent any indecent, or immodest Behaviour."[108] Similarly, British venereal disease

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[103] *The Gentleman's Magazine,* Vol. 17, (June 1747), 270.

[104] Risse, *Hospital Life in Enlightenment Scotland*, 1, 10-11, 15-16.

[105] Despite this, hospital services were clearly in increasing demand, and patients attempted to use them in to meet their own needs in their own ways. Fissell, *Patients, Power, and the Poor in Eighteenth-Century Bristol*, 108-09.

[106] LMA, H10/CLM/A1/1/1, 5 July 1751.

[107] For example, see *Laws, Orders, and Regulations, of the Edinburgh General Lying-in Hospital* (Edinburgh, 1793), 10-11.

[108] Edward Foster, *An Essay on Hospitals. Or, Succinct Directions for the Situation, Construction, & Administration of Country Hospitals. With an Appendix, Wherein the Present Scheme for Establishing Public Country Hospitals in Ireland, Is Impartially Considered* (Dublin, 1768), 24-25, 30.

patients underwent segregation in separate wards or hospitals. Since "the persons most liable to receive this disease are such as are least accustomed to regulate themselves with prudence," one doctor argued, "it will appear that the confinement and rules of a hospital cannot be more usefully employed than upon them."[109] The goal of containing disease merged here with the goal of achieving the moral reform of patients. In Jamaica, yaws similarly carried a social stigma among whites and was highly contagious; consequently, enslaved yaws patients too underwent seclusion.

Supporters of hospitals and other charity institutions expressed optimism that they could modify the behavior, health, and other characteristics of the poor and laboring population. Jonas Hanway waxed on about the Marine Society's potential to transform poor children from being sickly, "polluted with filth," and dangerous to the health of the community. According to Hanway, the Society would remake children "as *new creatures,*" "clean and purified."[110] For the Marine Society and Hanway, however, physical transformation and moral and behavioral transformation were inextricable from one another. Hanway suggested that all children be taught to mend their own clothes as a means for inculcating industriousness and "the greater respect for their own persons." The Marine Society's disciplinary regimen incorporated this suggestion. Pringle and others likewise pointed out that cleanliness contributed to "good order and other

[109] Aikin, *Thoughts on Hospitals*, 37. On London hospitals' treatment of poor people with venereal diseases, see Kevin P. Siena, *Venereal Disease, Hospitals and the Urban Poor: London's "Foul Wards," 1600-1800* (Rochester: University of Rochester Press, 2004). Early nineteenth-century military regulations went further: "All Venereal Patients are to be confined to the Hospital. Whenever the Itch prevails in a Regiment there is to be a weekly Inspection of all the Men by the Surgeon, or Assistant Surgeon; nor should this weekly examination be confined to this point alone, as it is of consequence by frequent inspection to make early detection of venereal Complaints." WL, RAMC/210/3.

[110] A merchant, *Motives for the Establishment of the Marine Society*, 2nd ed. (London, 1762), 10.

virtues," as well as good health.[111] In 1784, the Marine Society approved a plan for establishing a Naval County Free School. Such a school, according to the Society's resolution in favor of the plan, would transform and improve individuals and "the Common people" in general:

> It ought to be presumed that whilst it maritimizes their Genius…it may render them the more Sober, & therefore the better Guardians of their own health, & the more honest principles they imbibe, the greater measure of security the State will receive for their fidelity & Constancy in Service.[112]

Despite such lofty goals, the Society received complaints later that year from naval authorities about the "evil propensities" of some of the boys that it placed into service.[113]

Writing in 1803, army physician William Lempriere conceived of a unified national government approach to poor relief centered on large institutions with the aim of "render[ing] the inhabitants of an Institution, a new class of society." In contrast to Thomas Malthus's increasingly influential suggestions for confining poor relief to designedly unappealing institutions, Lempriere's plan called for institutions "as desireable [*sic*] as possible" so that people would willingly enter them. Nonetheless, for Lempriere the attraction of such institutions arose largely from the physical control they could provide authorities over the lives of poor people. He claimed it necessary that his proposed institutions cut off or strictly limit "all external communication," in order to control the influence of "the vicious." He further suggested the benefits to political and social stability of "bringing under" the "eye and direction" of Parliament "so large a proportion of the community."[114] Nothing came of Lempriere's plan, but its emphasis

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[111] Pringle argued that Cook deserved a medal from the Royal Society, as he offered the means for preserving the lives and fitness of Britain's maritime population. See Pringle, *A Discourse Upon Some Late Improvements of the Means for Preserving the Health of Mariners*, 26-27, 37.

[112] NMM, MSY/B/3, Marine Soc. Fair Minute Book, ff. 404b-405a.

[113] NMM, MSY/B/3, ff. 414b-415a.

[114] BL, Add MS 31237, William Lempriere, "Additional Observation," 21 Feb. 1803, ff. 45r-46r.

on the need to surveil and control poor people in order to modify their behavior and character was orthodox, if somewhat optimistic in its projected results by the early nineteenth century.

Conclusion

Sir John Pringle attributed the decline of "the plague, pestilential fevers, hot scurvies and dysenteries" in Europe in the century preceding the 1750s primarily "to the improvement of every thing relating to cleanliness, and to the more general use of antiseptics." Pringle also nodded to improving diet for both rich and poor, as well as increasing alcohol consumption, which he viewed as useful for suppressing "putrid diseases." He singled out London as having seen especial improvement in health.[115] An article in the *Philosophical Transactions* in 1774 puts down Manchester's increasing healthiness to "wide and spacious" new streets, "larger and more commodious dwellings" for the poor, and improved standards of living arising from trade. The article also mentions several improved medical practices in its explanation, although it notes "inoculation is not much practiced here."[116] Likewise, an undated common-place book compiled, at least in part, during the final third of the eighteenth century noted a general decrease in the incidence of "Epidemical Fevers" in Britain. The book overlaps with the *Philosophical Transactions* article in several of its reasons for the decrease. In addition, it asserts the importance of improvements in attention to personal cleanliness among "the Common People," "better Police respecting the Cleanliness of Jails & Hospitals," and the draining and clearing of land that used to create miasmas.[117]

Sir Gilbert Blane, writing in the 1830s, explained the improvement of the British

[115] Pringle, *Observations on the Diseases of the Army*, 350-52.

[116] Percival and Price, "Observations on the State of Population in Manchester, and Other Adjacent Places. By Dr. Percival. Communicated by the Rev. Dr. Price," 58-59.

[117] WL, MS. 1755, [Common-Place Books, 18th cent.], f. 28r.

population's health in similar terms. He cited better and more plentiful food, improved personal cleanliness, clean and dry streets, as well as "the draining practiced as an agricultural improvement, which has confined agues to a few undrainable districts." The results of these improvements, according to Blane, had "more than compensate[d] for the disadvantages arising from the less healthy occupation of manufacturers," though he noted that the poor had not fully shared in the gains.[118] By the early nineteenth century, a high-ranking army doctor expressed optimism about the prospects of breaking from the past and rendering even the islands of the West Indies "almost inoxious to their inhabitants." Work clearing marshes around Antigua's English harbor, he claimed, had achieved great success, although preventing regression to "pestiferous bogs" would require continued vigilance.[119] That said, mortality rates seemed largely unchecked in places like Jamaica through the early-mid nineteenth century, and pessimism grew about the prospects for whites to enjoy health in tropical environments, although mortality at sea seemed increasingly manageable.[120] Moreover, by the 1830s and 1840s, urbanization in Britain had accelerated still further, reaching new heights that provoked widespread perceptions of an urban crisis and intensified the earlier pathologizing of the urban poor.

Many of the interventions just mentioned aimed to engineer environments by modifying spaces, through drainage, ventilation, and sanitation. Nonetheless, issues of behavior and personal cleanliness figure prominently**.** This chapter has contended that efforts to control

[118] Blane, *Reflections on the Present Crisis on Publick Affairs*, 35.

[119] WL, RAMC/210/9, section on Antigua.

[120] On growing pessimism during the late eighteenth and early nineteenth centuries, see Harrison, ""The Tender Frame of Man": Disease, Climate, and Racial Difference in India and the West Indies, 1760-1860; *Climates & Constitutions: Health, Race, Environment and British Imperialism in India, 1600-1850.* Mortality rates for British soldiers in the West Indies only fell after the abolition of slavery, when the soldiers took up bases in the mountains—a measure that military doctors had suggested throughout the late eighteenth century—out of range of the mosquitoes that transmitted yellow fever. See McNeill, *Mosquito Empires*, 81.

people's bodies and to modify physical environments were inseparable in the strategies authorities generalized for managing the health of poor and laboring populations, reflecting increasing treatment during the eighteenth century of these populations as living elements of disease environments. But strategies of constant surveillance and enforced personal cleanliness, among other things, were generally only politically possible during this period in institutional contexts such as the slave trade, the armed forces, prisons, and hospitals and other charities. Smallpox inoculation, which also embodied an approach that took the population as part of the disease environment, became intensely controversial outside such contexts. The next chapter examines the development during the eighteenth century of inoculation as a tool for managing the health and fitness of populations, especially laboring populations.

Chapter 4: The Limits of Governance: Population, Labor, and the Politics of Inoculation and Vaccination during the Long Eighteenth Century

Writers in Britain continued to debate inoculation well over half a century after its trial on six prisoners at London's Newgate Prison in 1721. Inoculation's obvious riskiness was at the center of the debate. As one influential supporter of inoculation noted in 1761, "rushing into the Embraces of a Distemper, as a Security from its worst Effects, had naturally something in it very indigestible and alarming at first."[1] Fear of inoculation's potentially fatal effects seemed an obstacle to doctors attempting to preserve the health of individuals throughout the century. As time passed, however, authorities increasingly tried to use inoculation as a technique of security in which the health and happiness of individuals constituted means to the larger ends of preserving the laboring population and managing, or even eliminating, smallpox. Achieving these ends required making inoculation "general," a prospect that raised issues of ethics, medical and governmental authority, and individual versus collective rights. Concerns about mobilizing effective laboring populations were central to the development of strategies for making inoculation and vaccination general. Physicians, surgeons, and other pro-inoculationists worked to persuade poor people to embrace inoculation, and to inculcate habits of inoculation by making it familiar and normalizing it as a personal, familial, and social duty. Yet, slave owners, slave ship captains and merchants, charity officials, and private employers also made moves during the eighteenth century toward compelling people to undergo inoculation. The final section of the chapter argues that governmental uses of vaccination in the nineteenth century in Britain largely followed from the extra-governmental uses of inoculation developed across the British Atlantic

[1] J. Kirkpatrick, *The Analysis of Inoculation: Comprizing the History, Theory, and Practice of It: With an Occasional Consideration of the Most Remarkable Appearances in the Small Pocks*, Second ed. (London: Printed for J. Buckland and R. Griffiths, 1761), 122.

by the end of the eighteenth century.

This chapter thus argues broadly that inoculation and vaccination developed as tools of projects for managing laboring populations and governing society during the long eighteenth century across colonial and metropolitan contexts. Such projects for governing society were and are inherently political, regardless of whether they directly involve the formal institutions of government.[2] A considerable body of historical scholarship has examined vaccination as not just a medical but also a political issue in Britain during the second half of the nineteenth century, especially in the context of the anti-vaccination movement in response to compulsory vaccination laws.[3] This approach has been far less evident in work on inoculation in the eighteenth century, much of which, though valuable, is medical and demographic in focus.[4] Perhaps this tendency not to consider inoculation in a clearly political frame arises from the relative lack of direct national government involvement in public health measures before the early mid-nineteenth century. Nonetheless, inoculation and eventually vaccination were contentious practices as well as topics in printed discourse throughout the century after 1721. Among other actions, their supporters formed public associations and attempted to enlist the institutional and coercive power of government to enact their plans for governing society.

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[2] Mitchell Dean, "Governing Society: The Story of Two Monsters," *Journal of Cultural Economy* 1, no. 1 (March 2008).

[3] For example, see Ann Beck, "Issues in the Anti-Vaccination Movement in England," *Medical History* 4, no. 4 (1960); R.M. MacLeod, "Law, Medicine and Public Opinion: The Resistance to Compulsory Health Legislation, 1870-1907," *Public Law* (Summer and Autumn, 1967); Dorothy Porter and Roy Porter, "The Politics of Prevention: Anti-Vaccinationism and Public Health in Nineteenth-Century England," *Medical History* 32(1988); Logie Barrow, "In the Beginning Was the Lymph: The Hollowing of Stational Vaccination in England and Wales, 1840-98," in *Medicine, Health and the Public Sphere in Britain, 1600-2000*, ed. Steve Sturdy (New York: Routledge, 2002); Nadja Durbach, "'They Might as Well Brand Us': Working-Class Resistance to Compulsory Vaccination in Victorian England," *Social History of Medicine* 13, no. 1 (2000); *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907* (Durham, NC: Duke University Press, 2005).

[4] For two exceptions, see Francis M. Lobo, "John Haygarth, Smallpox and Religious Dissent in Eighteenth-Century England," in *The Medical Enlightenment of the Eighteenth Century*, ed. Andrew Cunningham and Roger French (Cambridge: Cambridge University Press, 1990); Adrian Wilson, "The Politics of Medical Improvement in Early Hanoverian London," ibid.

Inoculation and early vaccination inhabited the realm of extra-parliamentary political activity in which scholars have located eighteenth-century British voluntary hospitals and other associational charities.[5]

Inoculation, Population, and Enslaved Labor

Inoculation aimed to induce a mild case of smallpox as a means of conferring protection from accidental contraction of "natural," and potentially severe, smallpox. The practice involved making cuts or scratches in a person's skin—usually on the arms. The inoculator would then introduce into the wounds matter from the pustules of someone already ill with smallpox. If the inoculation were successful, the patient would recover in roughly two or three weeks and would have lifelong immunity to smallpox. This was no minor issue. According to historian Richard Sheridan, before the late eighteenth century "smallpox reputedly killed, crippled, and disfigured one-tenth of all humans."[6] Unfortunately, not only did inoculation seem counterintuitive as a medical practice to many, it in fact had a small chance of creating a full-blown and potentially fatal case of smallpox, instead of a mild one. In addition, inoculated smallpox was, like natural smallpox, contagious. Contact with an inoculated person could result in a dangerous, unattenuated case of smallpox.[7] Opponents from the very beginning raised concerns that inoculation could spread smallpox to other people, perhaps manufacturing epidemics, although

[5] For example, see J.V. Pickstone and S.V.F. Butler, "The Politics of Medicine in Manchester, 1788-1792: Hospital Reform and Public Health Services in the Early Industrial City," *Medical History* 28(1984); Kathleen Wilson, "Urban Culture and Political Activism in England: The Example of Voluntary Hospitals," in *The Transformation of Political Culture in Late Eighteenth Century England and Germany*, ed. Eckhart Hellmuth (Oxford: Oxford University Press, 1989); Anne Borsay, ""Persons of Honour and Reputation": The Voluntary Hospital in an Age of Corruption," *Medical History* 35(1991).

[6] Sheridan, *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680-1834,* 249.

[7] For an important historical study that argues that this was much less of a danger than has often been assumed (during the eighteenth century and later), see Razzell, *The Conquest of Smallpox: The Impact of Inoculation on Smallpox Mortality in Eighteenth Century Britain*.

this only became the dominant anti-inoculation argument in later decades.[8] According to numerous commentators from the 1720s on, these issues, along with religious objections to the practice as immoral, contributed to widespread skepticism in Britain and its colonies about inoculation.

During the two to three decades following 1721, both the practice of inoculation and objections to it focused largely on protecting individuals and containing specific outbreaks of smallpox. The number of inoculations jumped with outbreaks, as people tried to protect themselves and their families from an immediate threat—a trend that continued for the rest of the century, due to perceptions of risk and to the supply of material for inoculation. Supporters of inoculation, found especially among members of the Royal Society and the ranks of surgeons and physicians, devoted considerable effort to convincing a mostly wealthy clientele that the chance of dangerous complications from inoculation was insignificant. Still, some of them, including the influential Dr. John Arbuthnot, made populationist claims for inoculation's utility to the nation and society.[9] As historian Andrea Rusnock has observed, in the 1720s, Yorkshire physician Thomas Nettleton employed "the merchant's logick" of weighing profits and losses—lives saved and lost—in supporting inoculation, "ask[ing] the physician to weigh the welfare of a population against the health of an individual."[10]

If we extend our view beyond Britain to the transatlantic slave trade during this period,

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[8] For one example out of many, see John Williams, *Several Arguments, Proving, That Inoculating the Small Pox Is Not Contained in the Law of Physick, Either Natural or Divine, and Therefore Unlawful. Together with a Reply to Two Short Pieces, One by the Rev. Dr. Increase Mather, and Another by an Anonymous Author, Intituled, Sentiments on the Small Pox Inoculated. And Also, a Short Answer to a Late Letter in the New-England Courant* (Boston, 1721), 4.

[9] However, he wrote anonymously, possibly to protect his reputation in what was a medically, religiously, and politically charged debate. See, Rusnock, *Vital Accounts*, 47, 49; Wilson, "The Politics of Medical Improvement in Early Hanoverian London," 29.

[10] Rusnock, "'The Merchant's Logick," 38.

we see that not only did arguments for inoculation employ "the merchants' logick," but also that practices of inoculation sometimes resulted from the logic of merchants. As early as 1722, in the face of high death rates from smallpox, the Royal African Company decided to try inoculation as a means of maintaining the health of enslaved populations aboard slave ships. Encouraged by members of the Royal Society, the company sent Dr. James Houstoun to the west coast of Africa to carry out the plan and "ensure that the slaves put on board the company's vessels were "merchantable"." Inoculation, in other words, would act as a form of insurance in the commodification of human beings, as well as an enhancer of their commodity value as laborers. Paying a premium in the form of the lives of those who died from inoculated smallpox would, the company's directors hoped, result in more slaves reaching the Americas alive for sale than would otherwise. The plan fell apart due to interference from the company's local representative at the slave trading post at Wydah.[11] Despite the failure, this instance highlights the importance of concerns about labor productivity, including that of slaves, to the development of inoculation as a technique for securing the health of populations. The overseas mercantile activities of the Royal African Company came together with the medical and scientific aims of the Royal Society.[12]

The extent of inoculation in the transatlantic slave trade over the following half century is unclear, but by the final third of the eighteenth century, it was a common technique for securing the fitness of the enslaved population before sale in America. For example, a 1789 report from the Jamaican Assembly on the slave trade includes testimony from Kingston merchant John

[11] Larry Stewart, "The Edge of Utility: Slaves and Smallpox in the Early Eighteenth Century," *Medical History* 29, no. 1 (1985): 63, 65-66. Apparently, the factor at Wydah had Houstoun imprisoned and then sent to Jamaica.

[12] "The Edge of Utility: Slaves and Smallpox in the Early Eighteenth Century," *Medical History* 29, no. 1 (1985).

Taylor. Taylor testified that after a ship carrying slaves for him from Africa arrived having lost a substantial proportion of the people aboard to smallpox, he ordered all those who seemed healthy to be inoculated.[13] The captain of another slave ship reported a different practice on one of his own voyages. While at sea, this captain said, he "caused them [the slaves] to be inoculated immediately on its [smallpox's] appearance," supposedly limiting mortality greatly on the voyage.[14] Four years later, a doctor in Britain observed that this was common practice "of later years" aboard slave ships. He leveraged the success of this practice among "people of all ages, entirely unprepared, and under circumstances very unfavourable" as evidence of inoculation's safety more generally as a preventive measure.[15]

Slave owners in the West Indies began using inoculation to prevent disease outbreaks among their slaves by the 1740s, and they turned to it increasingly thereafter.[16] In 1756, Thomas Thistlewood wondered, based on information that enslaved people "at Barham's" were cured of yaws if they contracted smallpox, "if Inoculation would not be Serviceable when they get ye yaws, that never had ye Small Pox."[17] Planters were especially interested in curing or preventing yaws because, as a debilitating contagious disease common among enslaved people in the West

[13] Journals *of the Assembly of Jamaica,* vol. 8, 526. According to Taylor, the captain of his ship purchased 283 slaves in Africa. Of these, only 210 were left when the ship arrived in Jamaica, and another thirty died of smallpox after the inoculation.

[14] Ibid., 526.

[15] John Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain; and to Introduce General Inoculation*, 2 vols., vol. II (London: Printed for J. Johnson, 1793), 443-45. The author of the letter printed in this piece also noted the use of isolation to contain smallpox aboard slave ships.

[16] A 1750 piece on Barbados claimed that use of inoculation kept fatalities from smallpox in check. Hughes, *The Natural History of the Island of Barbados,* 39.

[17] Beineicke Library, Yale University, OSB MSS 176, Box 2, Folder 7, 9 Oct. 1756, p. 158.

Indies, it hindered labor productivity.[18] Despite contemplating an apparently curative use of inoculation, Thistlewood seems to have used it for the usual purpose of prevention. He mentioned in his journal in 1774 having had all of his slaves inoculated for smallpox, and an entry from 1778 suggests that he continued the practice.[19] Edward Long, in revision notes for an intended second edition of his *History of Jamaica,* similarly discussed inoculation in relation to both yaws and smallpox. According to Long

> of late the practice of Inoculating for this distemper [yaws] has been introduced with amazing success. The Affinity it bears to the Small pox is thus proved to Demonstration; it is a most pleasing reflection to consider that at length a specific is found for carrying the unhappy persons afflicted with it through with Safety; and that this fortunate discovery, is observed upon Experiment to be equally powerfull [*sic*] in disarming two disorders which heretofore have been so fatal mankind, of all their Virulence and Malignity.[20]

This statement, like Thistlewood's, is ambiguous about the precise aim of smallpox inoculation in relation to yaws, but it suggests a preventive use to secure the enslaved population from both diseases simultaneously.

Planters and overseers used inoculation episodically, when an imminent threat existed, but the practice was nonetheless widespread in Jamaica by the 1760s. In 1768, Joseph Foster Barham's attorney in Jamaica wrote to Barham about a smallpox epidemic among the enslaved

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[18] In addition to individual planters and doctors, the Jamaican Assembly investigated reports of cures, holding out the possibility of monetary rewards for effective ones. For one example, see Journals *of the Assembly of Jamaica,* vol. 8, 48-49, 70.

[19] Beineicke Library, Yale University, OSB MSS 176, Box 5, File 25, 9 April 1774, p. 65; File 29, 7 Dec. 1778, p. 205.

[20] BL Add MS 12405, Edward Long, *The History of Jamaica,* vol. II, f. 353v. At least one contemporary doctor in Jamaica, John Quier, observed that slaves who had yaws usually experienced "the natural small-pox" in a "very mild" form. See *Letters and Essays on the Small-Pox and Inoculation, the Measles, the Dry Belly-Ache, the Yellow, and Remitting, and Intermitting Fevers of the West Indies. To Which Are Added, Thoughts on the Hydrocephalus Internus, and Observations on Hydatides in the Heads of Cattle. By Different Practitioners,* (London, 1778), 16.

people on Barham's estate. Although the attorney noted that the disease was "a very favourable Sort at present," he worried about its potential to become a serious problem. He continued: "I heartily wish we had your Consent for Inoculating as it has been practiced in this Parish with great Success & shou'd any of your Negroes escape it now I hope we shall have your Concurrence for Inoculating next Season."[21] A published letter from the well-known plantation doctor John Quier to Donald Monro, the famous army physician, likewise states that inoculation of slaves was widespread in Jamaica by this point.[22] It bears mention that Quier wrote about inoculating enslaved children at length in his letter. Several years earlier, Monro's father, physician Alexander Monro (*primus*), had publicly requested information about inoculating young children, as this was a controversial practice in Britain.[23]

As the epidemic continued, Barham's managers in Jamaica acted without waiting for his approval. The attorney, D. Barnjum, reported:

> From the necessity of the Case Mr Pool Ventured to give the Doctor orders for Inoculating the Remaindr [*sic*] which he has accordingly undertaken, & performed the Operation already on about 60, young & old, all of which there is the greatest probability will do well, the Remainder he will take under his hand as Soon as these are sufficiently Recovered to go to Work.

Barnjum next pushed his case for inoculating all of the plantation's slaves, while also attempting to excuse the fall in economic productivity that would result. Sickness, he claimed, exacerbated the labor problems arising from a too-small slave population on the estate, but the necessary practice of inoculating would also "Undoubtedly be a great hinderance [*sic*] to me in the

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[21] Oxford, Bodleian Library, MS. Clar. dep. c. 357, D. Barnjum to Joseph Foster Barham, 20 June 1768.

[22] *Letters and Essays on the Small-Pox and Inoculation...* 6.

[23] Monro, *An Account of the Inoculation of Small Pox in Scotland*, 16. As I discuss below, pro-inoculationists increasing focused their efforts on children.

Ensueing [*sic*] Plant."[24] As elsewhere in the Atlantic World, enslaved people's health mattered to plantation authorities primarily in terms of fitness for labor.[25] Unfortunately, whether Barham approved or disapproved of this inoculation remains unclear from the extant correspondence.

Planters and managers on other estates in Jamaica also hurried to secure through inoculation the lives and, consequently, the labor productivity, of the enslaved populations on their estates. John Quier reported inoculating "near seven hundred negroes" in Jamaica during the spring and summer of 1768. Contrary to the approach on Barham's estate, Quier wrote that he usually conducted mass inoculations of "all the slaves on a plantation at once," although he implicitly denied that this had serious consequences for labor productivity, which Barnjum predicted, because most inoculated slaves continued to work in the fields during the process.[26] Quier's approach paralleled contemporary practices of mass inoculation in rural British villages, although obviously among an unfree population. He largely followed Thomas Dimsdale's instructions for inoculation, printed in Britain and sent to Jamaica by the Assembly's agent in London.[27]

Scottish physician and plantation owner Alexander Johnston's medical accounts give an additional sense of inoculation's extensiveness as an investment by planters, with little or no colonial government involvement, in Jamaica in 1768. Barham's estate was in Westmoreland, at the western tip of Jamaica, while Quier practiced in St. Catherine, in South-Central Jamaica. Johnston's practice centered on St. Ann, just north of St. Catherine on the north coast of the island. Although Johnston's accounts omit the numbers and, in the overwhelming majority of

[24] Bodleian Library, MS. Clar. dep. c. 357, Barnjum to Joseph Foster Barham, 15 July 1768.

[25] Fett, *Working Cures*.

[26] *Letters and Essays on the Small-Pox and Inoculation...* 8-9, 13.

[27] *Letters and Essays on the Small-Pox and Inoculation...* 7.

instances, the identities of people Johnston inoculated, they show that he charged many of his clients for inoculation in 1768. Of the first thirty-eight clients in the 1768-1773 account book, which is organized alphabetically, seventeen incurred charges for inoculation. The charge for inoculating a single person seems to have varied significantly, although it is often difficult to say when the accounts refer to individuals. In May 1768, Johnston charged "Free Harry, at Mammee Bay" 11s 10 1/2 d for inoculation.[28] For Jenny Walter's inoculation, on the other hand, he charged £2 7s 6d.[29] In at least two other cases, he charged £1 10s.[30] Nearly all the charges, however, are for considerably more money than this: enough more that it is evident that Johnston inoculated many slaves in 1768. The total for inoculation at Banks Estate came to £55 16s 3d.[31] Often, inoculation charges made up the majority of the medical account for the year. They made up two-thirds in John James's case.[32]

Philip Pinnock's account leaves no doubt that Johnston undertook a large-scale inoculation of Pinnock's slaves. The inoculation charges amounted to £209 4s, dwarfing the rest of the account and suggesting that Johnston probably inoculated over 100 people in this instance: possibly many more. Parliamentary testimony two decades later put the usual charge for inoculating slaves in Grenada at £1 currency per person, in addition to the physician's yearly retainer.[33] The cost may have differed between colonies or declined over the intervening period.

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[28] HSP, Powel Family Papers, Series 12, vol. 342, f. 14.

[29] Ibid., f. 8.

[30] Ibid., ff. 8, 13.

[31] Ibid., f. 45.

[32] Ibid., f. 19.

[33] "Minutes of the Evidence Taken before a Committee of the House of Commons, Being a Select Committee, Appointed on the 29th Day of January 1790, for the Purpose of Taking the Examination of Such Witnesses as Shall Be Produced on the Part of the Several Petitioners Who Have Petitioned the House of Commons

Still, in the absence of Johnston's oft-mentioned "inoculation book," this figure may provide a guide for estimating the number of people he inoculated. There is no figure in Pinnock's account for the number of slaves Johnston contracted with Pinnock to provide medical attention to in 1768, but for 1770-1772 the figures range from 345 to 360, suggesting that Johnston inoculated at a minimum nearly a third of Pinnock's slaves.[34]

Inoculation continued on Jamaican plantations through the end of the eighteenth century. For example, the son of the Joseph Foster Barham mentioned above, also named Joseph Foster Barham, seems to have approved of inoculation on the Barham properties in the 1790s. Writing in 1799, Barham's attorney in Jamaica reported smallpox cases on a plantation near Barham's Mesopotamia Estate that "induced them [the managers] to inoculate the others." He saw no need to inoculate Barham's slaves, though, since an inoculation in 1792 had given all but the children born since then immunity to smallpox. The inconvenience of inoculating seemed, then, to outweigh the benefits.[35] Several months earlier, another manager had reported a different situation on Barham's Island Estate. He noted that although a boy with smallpox had recovered "without infecting any other Negroes; there are many that have not had it, & I have ordered a

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against the Abolition of the Slave Trade," in *House of Commons Sessional Papers of the Eighteenth Century: Minutes of Evidence on the Slave Trade 1790, Part 1, Volume No. 71*, 108, 46. This price is higher than prices for inoculating poor people in Britain during the second half of the eighteenth century. For example, in 1767, an inoculator offered a price of "20 Guineas" for "as many as would be inoculated" in a parish in Sussex, and a lower charge if there were fewer than forty people. He also offered to inoculate 300 people in a nearby parish for £100. This works out to a maximum of 10s 6d in the first case, and to 6s 8d in the second. See "Letters from Mr Thomas Davies to Mr Hodgson," *Glynde Estate Archives*, East Sussex Record office, MSS 2772, quoted in Razzell, *The Conquest of Smallpox: The Impact of Inoculation on Smallpox Mortality in Eighteenth Century Britain*, 61. Prices fell further still by the end of the century. For example, see *The Conquest of Smallpox: The Impact of Inoculation on Smallpox Mortality in Eighteenth Century Britain*, 68. Conversion rates between sterling and currency varied, although in Jamaica, currency generally ran at about two thirds the value of sterling during this period. This difference underlay the ubiquitous practice of paying off slave ship sailors who left ships (whether voluntarily or not) in the West Indies in local currency.

[34] HSP, Powel Family Papers, Series 12, vol. 342, ff. 20, 197, 259.

[35] Bodleian Library, MS. Clar. dep. c. 357, William Rodgers to Joseph Foster Barham, 17 Dec. 1799.

List to be made out."[36] Given practices at Mesopotamia, the reason for the list was mostly likely to identify the at-risk individuals among the plantation's enslaved population so that the managers could inoculate them.

The results of the economically driven uses of inoculation in the slave system provided evidence for pro-inoculation arguments in Britain, even as practice in Britain likewise influenced practice in the West Indies. In a 1747 book on smallpox, the eminent English physician, Richard Mead, cited as evidence of inoculation's safety information from a merchant in St. Christopher. This merchant claimed to have "with his own hands" inoculated 300 of his slaves during a smallpox outbreak. For the same purpose, James Kirkpatrick later provided mortality statistics for natural and inoculated smallpox among whites as well as enslaved blacks in the West Indies and North America. William Buchan, the author of the medical self-help guide *Domestic Medicine*, likewise used the experience of an unnamed planter in the West Indies in safely inoculating slaves to argue for inoculation in Britain. He too was probably referencing the example used by Mead.[37] In the 1780s, physician William Black discussed increasing acceptance of inoculation in England, North America, and the West Indies as part of an overarching history of inoculation.[38] Writers and practitioners in Britain, Jamaica, and elsewhere drew together evidence about inoculation's safety and effectiveness in safeguarding populations across a variety of colonial, national, and environmental contexts. Although practices varied in different settings, they embodied a similarly population-centered approach, and evidence they supplied became

[36] Bodleian Library, MS. Clar. dep. c. 357, H.W.P. to Barham, 23 Sept. 1799 (copy), enclosed in Henry Waite Plummer to Barham, 25 Nov. 1799.

[37] Richard Mead, *A Discourse on the Small Pox and Measles* (London: Printed for John Brindley, 1748), 90; Kirkpatrick, *The Analysis of Inoculation: Comprizing the History, Theory, and Practice of It: With an Occasional Consideration of the Most Remarkable Appearances in the Small Pocks*, 131-32; Buchan, *Domestic Medicine*, 298-99.

[38] Black, *Observations Medical and Political, on the Small-Pox*, 34-35.

interchangeable and cumulative.

General Inoculation and Securing Britain's Population

Preserving the individual's health through inoculation increasingly became primarily a means to the end of preserving the population in Britain—as it had been from the start in the Atlantic slave trade. As Buchan put it, next to mortality arising from "natural" smallpox, "the numbers who die under inoculation hardly deserve to be named."[39] Some individuals might develop serious cases of smallpox from inoculation, but provided their number remained small enough, people like the Jamaica surgeon and London physician Benjamin Moseley, in a work published in 1779, could proclaim victory; "inoculation has disarmed the Small-pox of its terror; and reduced it to management."[40] This statement was obviously premature. Even then, a smallpox pandemic was having devastating effects on people throughout North America.[41] Recent scholarship convincingly argues that smallpox became markedly more infectious and probably more virulent in Britain starting sometime in the 1770s.[42] Still, Buchan and many of his contemporaries saw the possibility of "extirpating" the disease, although, Buchan wrote, universal inoculation "would amount to nearly the same thing as rooting it [smallpox] out." Further, "it is a matter of small consequence, whether a disease be entirely extirpated, or rendered so mild as neither to destroy life nor hurt the constitution."[43]

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[39] Buchan, *Domestic Medicine*, 294.

[40] Foucault, *Security, Territory, Population*, 2, 42, 66; Moseley, *A Treatise on Sugar*, 164.

[41] See Elizabeth A. Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775-82* (New York: Hill and Wang, 2001).

[42] R. Davenport, L. Schwarz, and J. Boulton, "The Decline of Adult Smallpox in Eighteenth-Century London," *Economic History Review* 64, no. 4 (2011).

[43] Buchan, *Domestic Medicine*, 293-94. See also John Haygarth, *An Inquiry How to Prevent the Small-Pox. And Proceedings of a Society for Promoting General Inoculation at Stated Periods, and Preventing the Natural Small-Pox, in Chester* (Chester: Printed by J. Monk for J. Johnson and P. Broster, 1784); *A Sketch of a Plan to*

Buchan and others increasingly claimed that accomplishing this goal of controlling smallpox's threat to society required making inoculation general. "So long as Inoculation is confined to a few," wrote William Black in the early 1780s, "so must its benefits: we mean it to be universal."[44] Given the numbers involved, this meant focusing on the poor and laboring population. The Royal College of Physicians of London officially sanctioned inoculation in 1754, but although this action failed to render it uncontroversial, inoculation expanded among the middling and laboring classes in Britain from the 1750s and 1760s. New practices made inoculation less expensive, time consuming, and physically invasive, thus making it less unappealing. Inoculators and a variety of medical and social commentators emphasized all of these points in encouraging inoculation for poor people across Britain.

Early large-scale inoculation efforts centered on rural parishes and villages, where the majority of Britain's population lived and where pro-inoculationists saw both vulnerability to epidemic smallpox and the possibility of altering the disease environment. Such areas generally had insufficient concentrations of people to make smallpox endemic. As contemporaries realized, periods in which smallpox either was absent or only affected a few individuals were punctuated at often-unpredictable intervals by intense epidemics. Since surviving a case of smallpox leaves one with lifelong immunity, small communities generally cannot host smallpox for long; people either die or gain immunity, leaving few susceptible following an outbreak. Eventually, however, the community's resistance erodes, as people who have not had smallpox

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Exterminate the Casual Small-Pox from Great Britain; and to Introduce General Inoculation: To Which Is Added, a Correspondence on the Nature of Variolous Contagion...And on the Best Means of Preventing the Small-Pox, and Promoting Inoculation, at Geneva; with the Magistrates of the Republick, 2 vols., vol. I (London: J. Johnson, 1793).

[44] Buchan, *Domestic Medicine*, 269-303; Black, *Observations Medical and Political, on the Small-Pox*, 86.

move in and children are born in a smallpox-free environment.[45] Like West Indian planters increasingly did, pro-inoculationists in Britain looked to break this cycle and eliminate its potential for unmanageable epidemics by inoculating all at-risk people in a village or parish as soon as smallpox appeared in the area.

For many pro-inoculationists, accomplishing this would constitute a humanitarian achievement and a major improvement toward a more rationalized approach to governing society. As a result, it would have multiple benefits for both individuals and the nation, including stimulating the growth of the laboring population and the utilization of resources. These benefits could be one in the same. For example, government officials and a variety of other social authorities viewed the Scottish Highlands as a crucial recruiting area for the British Army: a region at the edge of Britain that provided relatively few economic opportunities and whose environment supposedly created strong, hardy, martially inclined people.[46] One report from the 1760s, and giving significant attention to economic productivity, employment, and the size of the population, described the inhabitants of the Scottish islands as "a People, still in the Pastoral Stage of Society." It noted, however, evidence of their potential for societal progression. This evidence included "the amazing Progress of Inoculation." Inoculation features prominently in the report as an important means for increasing the size of the laboring population and increasing the Islands' demographic and economic utility to Britain.[47] Still, according to Scottish physician

[45] These statements apply to relatively densely populated rural areas—those focused on small towns and villages. Deborah Brunton has argued that a sparser rural population helped make smallpox endemic in parts of Scotland during the eighteenth century. See Deborah Brunton, "Smallpox Inoculation and Demographic Trends in Eighteenth-Century Scotland," *Medical History* 36, no. 4 (1992). Eighteenth-century observers recognized how community resistance to smallpox broke down over time. For example, see Haygarth, *An Inquiry How to Prevent the Small-Pox,* 115.

[46] Andrew Mackillop, *'More Fruitful Than the Soil': Army, Empire and the Scottish Highlands, 1715-1815* (East Linton: Tuckwell Press, 2000).

[47] Take, for example, the account of extensive inoculation in Skye starting in 1763. BL, Kings MS 105, ff.

Alexander Monro, inoculation only gradually spread through Scotland; most of the people he noted underwent inoculation after 1750.[48] In the 1790s, inoculation's popularity in Scotland remained limited mostly to the affluent, although it varied greatly across and even within regions.[49]

Many arguments for inoculating the poor extended beyond such basic mercantilist terrain as growing the laboring population's numbers by decreasing mortality rates. Pro-inoculationists exhibited a blend of humanitarian, military, political, and economic concerns, as is evident in a sermon from the late 1760s. The sermon argues for the economic and military utility of inoculation during a time "when the nation is so thin of men" and "thousands are wanting among the lower class, to perform the common works of husbandry and labor." All lives are valuable, according to the sermon, but men in their laboring prime are worth more to society than are young children. Encouraging inoculation becomes particularly important here for managing the numbers and fitness of the existing labor force. In addition, the sermon provides a gendered take on inoculation's domestic benefits. Husbands and wives both happily see their partners secured from smallpox, but husbands also enjoy the "additional beauty" their wives gain by avoiding a severe case of smallpox.[50] Others also mentioned inoculation's benefit of preserving women's beauty, casting it not only as a matter of individual happiness but also as one of political economy. William Black lamented smallpox's disfigurement of its survivors, "an object in the

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4, 117-118. This is John's Walker's report to the Commissioners of the Annexed Estates, written in the 1760s and 1770s. It was published in 1808.

[48] Monro, *An Account of the Inoculation of Small Pox in Scotland*, 3-5.

[49] Brunton, "Smallpox Inoculation and Demographic Trends in Eighteenth-Century Scotland," 407-08.

[50] Robert Houlton, *The Practice of Inoculation Justified. A Sermon Preached at Ingatestone, Essex, October 12, 1766, in Defence of Inoculation, to Which Is Added, an Appendix on the Present State of Inoculation; with Observations, &C.* (Chelmsford: Printed and Sold by Lionel Hassall, [1767]), 30-32.

female sex of more consequence both to the happiness of individuals, and in a political view, as impeding population, than some stoical readers may pretend."[51] Beauty appears as an enhancer of women's reproductive value to the nation, and inoculation as a means for insuring this value. A 1790 piece in *The Lady's Magazine* about the evils of cosmetics claims that painting one's face with dangerous substances "is undoing all that inoculation was supposed to effect" in preserving women's health and beauty. Women who "injure their health to indulge their vanity" are "criminal."[52]

In rural villages and small towns, inoculators thought they could inoculate the whole population while also controlling ingress to and egress from the town, thereby preventing smallpox from spreading. In 1775, Dr. Charles Blagden's brother wrote to him suggesting the degree of control involved in a mass inoculation in a relatively small population center. According to the letter, "the town at Dursley being under Inoculation its [*sic*] computed that there near a thousand person under it at this time wch. Prevents much of her [R. Blagden's mother] goods being dispos'd of."[53] The language here is reminiscent of that describing siege warfare; inoculation and quarantine together constitute a weapon against smallpox, containing it town by town. Yet, despite the connection with the perennially fraught issue of quarantine, this approach commanded widespread acceptance among doctors during the second half of the eighteenth century. Dr. Thomas Dimsdale became an especially prominent supporter of it, advocating the mass inoculation of all people in a given small town who would consent.[54]

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[51] Black, *Observations Medical and Political, on the Small-Pox*, 42.

[52] "The Index, No XIII," *The Lady's Magazine; or Entertaining Companion for the Fair Sex, Appropriated solely to their Use and Amusement,* Vol. XXI (London, 1790): 117.

[53] RS, CB/1/2/95, R. Blagden to Dr. Blagden, 18 Sept. 1775.

[54] Thomas Dimsdale, *Thoughts on General and Partial Inoculations. Containing...Also Outlines of Two Plans: One, for the General Inoculation of the Poor in Small Towns and Villages. The Other, for the General*

But in a period of rapid urban growth, projects for making inoculation general had to address cities and towns, as well as rural areas. As in other contexts, the increasing encouragement of inoculation in urban areas from the 1770s on focused on the poor, and issues of labor productivity and population security remained inextricable. A minister in the market town of Luton reported the inoculation of approximately 1,900 people in 1788. Of the 1,215 poor people inoculated, the minister claimed, "only five died, and those under the age of four months." Following this result, he advocated "annual inoculation at the parish charge," citing the "principles of economy" as well as "of humanity." Paying for inoculation would supposedly cost the parish less than care for people who caught smallpox naturally, remove the need to support poor families that lost a working parent, and indirectly promote industriousness among children, by keeping families intact. On the far grander scale of London, serious efforts to promote inoculation among the urban poor on a large scale started in 1775, with the Society for General Inoculation of the Poor. The Society, founded by physician John Coakley Lettsom, offered free inoculation to poor people in their homes, while a dispensary founded after the Society fell apart offered inoculation to people at the dispensary. Lettsom argued that controlling the movements of smallpox and people in a city such as London was impossible without disruptive and authoritarian quarantine measures. Inoculation, then, constituted the best tool for managing smallpox in London. Among other benefits, general inoculation would provide a means by which "many children of the healthy laborious poor would...be preserved to the state."[55]

As a potential tool for governing society, inoculation became a contentious political

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Inoculation of the Poor in London, and Other Large and Populous Places. (London: Printed by William Richardson, 1776), 34.

[55] John Coakley Lettsom, *Medical Memoirs of the General Dispensary in London, for Part of the Years 1773 and 1774* (London: Printed for Edward and Charles Dilly, 1774), 187.

issue, even though the institutions of national government remained largely uninvolved with it. Even pro-inoculationists were divided on the merits and ethics of general inoculation of the urban poor. According to Dimsdale, general inoculation in cities "will scarce bear a moment's consideration, so many and so insuperable are the difficulties which would occur in a free country."[56] Failing to gain consent from people near the inoculated would constitute "an insult to humanity," given the impossibility of controlling people's behavior and preventing smallpox from spreading.[57] The dangers and, thus, the infringements of the rights of individuals and the community at large not to be purposefully and involuntarily exposed to smallpox meant for Dimsdale that individual inoculators had no right to operate on their own in cities. It was a matter for Parliament:

> To form a scheme, however beneficial to a few, that would probably spread the disease, and involve so great a number of others in a danger that they would otherwise be much less exposed to, is an object of great moment; and most certainly the Legislature ought first to be consulted. Great liberty may be taken in our free state; but we ought not to endanger the public safety, because no legal provision is made against it [inoculation].[58]

In the view of Dimsdale and his many supporters during the late eighteenth century, making inoculation general was theoretically laudable, but dangerously impractical and, consequently, immoral, indeed tyrannical, in cities. Dimsdale contended that a more limited scheme, one that centered on a system of hospitalization and observation, was the only acceptable way to extend inoculation to members of the urban poor.

As the above quotation suggests, opponents of general inoculation in cities claimed that it

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[56] Dimsdale, *Thoughts on General and Partial Inoculations*, 36. For an examination of the statistical thinking and debates on this topic, see Rusnock, *Vital Accounts*, 95-101.

[57] Dimsdale, *Thoughts on General and Partial Inoculations*, 40-42.

[58] *Thoughts on General and Partial Inoculations*, 45.

would unethically and dangerously benefit individuals at the expense of the population. One work from 1779 provides detailed allegations of the ethical and practical failings of Lettsom's plan for inoculating poor people at their own homes in London. According to the piece:

> In all contagious disorders where death may be the consequence of receiving infection, it is as much a dictate of common humanity and common prudence to prevent the diffusion of the disease amongst the sound part of the community, as to alleviate the distress of the patient, and to attempt restoring him to health. The welfare of the individual ought to be consulted, but by means consistent with that of the whole.[59]

The anonymous author of this statement argued against inoculating poor people in their homes.[60] Indeed, the author went further, arguing against inoculation at all on that grounds that it would help create a "familiarity" with the disease "which is thus destructive of caution." This argument positions the continuing threat of smallpox as the best tool for preventing epidemics, because it forces people to modify their behavior.[61] Contemporary moralists commonly expressed similar views concerning sexually transmitted diseases; for them, such diseases acted as punishment for promiscuity, and removing the punishment would encourage immoral behavior.

But the above piece about inoculation also engages questions about the coercive rights of the state and individuals, specifically medical authorities. "If there be any earthly power competent to determine that some individuals must, against their consent, be sacrificed to the welfare of the whole, it must surely be...the legislature or government." And even the state's coercive authority, according to the author, is insufficient to compel an individual to undergo

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[59] *Considerations on the Propriety of a Plan for Inoculating the Poor of London at Their Own Habitations: With a View Particularly to the Arguments Urged in Defence of It, by the Author of a Late Anonymous Letter to Dr. J. C. Lettsom,* (London: R. Baldwin and J. Sewell, 1779), 3.

[60] *Considerations on the Propriety of a Plan for Inoculating the Poor of London at Their Own Habitations: With a View Particularly to the Arguments Urged in Defence of It, by the Author of a Late Anonymous Letter to Dr. J. C. Lettsom,* (London: R. Baldwin and J. Sewell, 1779), 30-31.

[61] *Considerations on the Propriety of a Plan for Inoculating the Poor of London*, 17.

inoculation. Further, the piece inverts pro-inoculation arguments. It argues that practices for preserving the health of an individual are only ethically acceptable if they pose no threat to the community. The writer condemns plans to inoculate the poor "at their own crouded [*sic*] habitations, without the consent, or even the knowledge of the neighbourhood" as violating the community's rights to security and bodily autonomy. This position against unregulated inoculation among Britain's urban poor emphasized the riskiness of the endeavor and portrayed it as morally indefensible for making exposure to smallpox effectively compulsory. General inoculation of the urban poor, therefore, "cannot be justified, either in a political or moral point of view."[62] In this formulation, inoculation in city neighborhoods might benefit individuals, but the potential cost is group suffering, insecurity, and violation of rights. In other words, it fails in achieving the goal increasingly prevalent during the late eighteenth century of using inoculation to secure the health of the population.

Supporters of inoculating the urban poor responded to these points with their own arguments centering on rights, as well as the supposed safety and effectiveness of general inoculation. Dimsdale and other opponents adduced poor living conditions as support for their position, arguing that these conditions exacerbated problems of disease control. William Black cuttingly responded, "if Inoculation is to be with-held in London from the poor until they get "gardens, and areas to their houses, and *coaches* to take the air," they may wait to the day of judgment."[63] Since there was no real chance of significantly improving the living conditions of the poor as a group, Dimsdale's position would withhold inoculation from members of the urban poor, effectively condemning them to rely on chance to avoid smallpox. Black likewise derided

[62] *Considerations on the Propriety of a Plan for Inoculating the Poor of London*, 43.

[63] Black, *Observations Medical and Political, on the Small-Pox*, 73-74.

Dimsdale's plan for isolation in hospitals as making inoculation for the laboring classes contingent on "incarcerat[ion], by Baron Dimsdale's orders": a further restriction of people's right to protect themselves from a preventable disease.[64] Only an "arbitrary and unjust" government, according to Black, could allow inoculation for the wealthy and restrict it, no matter how indirectly, from the rest of society. In particular, it would constitute "a flagrant encroachment of the rights of mankind" for government in this context to "interfere to prevent" poor parents "from Inoculating their children."[65] Government interference here meant inaction in the face of restrictions on the accessibility on inoculation. This inaction, according to physician James Currie, resulted from the indifference of a ruling class whose members had unfettered access to inoculation and, as a result, had no fear of smallpox.[66]

Compulsory Inoculation

Although scholarship on compulsory immunization has largely focused on the period of British government action starting in the mid nineteenth century, problems of deploying and maximizing the productivity of laboring populations stimulated the development of compulsory inoculation as a tool in the eighteenth century. The slave system provided the main venue for this development, which resulted largely through extra-governmental action, and often through the actions of non-doctors. Despite John Quier's obvious enthusiasm for inoculation, he pointed to planters as the drivers of it in Jamaica, going so far as to describe cases in which he "was compelled to inoculate against my judgement [*sic*] and my will, partly through the apparent impossibility of the patient's escaping the contagion in the natural way of infection, and partly

[64] *Observations Medical and Political, on the Small-Pox*, 99.

[65] *Observations Medical and Political, on the Small-Pox*, 90-91.

[66] Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, II, 449.

through the pressing instances of their masters."[67] Colonists in Jamaica, Quier wrote, were "very much disposed to favour a practice which had so great a chance of securing their property."[68]

Quier's use of the word "compelled" is somewhat curious, since planters lacked means to force doctors to do anything, other than by refusing business or patronage. The people under compulsion in this instance were enslaved people, who would undergo inoculation if individual planters or overseers decided that they would. It is unclear whether African practices of inoculation made enslaved people more accepting of planters' decisions to inoculate them than of other plantation medical practices, which were often unpopular. Planters, overseers, doctors, and others writing on the topic simply refer to having slaves inoculated; there appears to have been no expectation that inoculation required any form of persuasion, unlike in Britain. Likewise, given enslaved people's status as private property, there was little or no discussion of rights when it came to inoculating them.

Alexander Monro's piece on inoculation in Scotland provides an example similar to that of Quier of contested authority concerning inoculation. Monro mentions doctors being convinced against their own inclinations to inoculate children. He includes "the importunity of parents" among the numerous circumstances prompting this action. On the other hand, he claims the most common complaint from doctors is of relatives "not allowing inoculation to be performed till they see the natural small pox very frequent and mortal in their neighbourhood, when they

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[67] *Letters and Essays on the Small-Pox and Inoculation...* 18-19.

[68] *Letters and Essays on the Small-Pox and Inoculation...* 6. As Londa Schiebinger has observed, the planters and overseers employing Quier would have had their slaves inoculated even if he had not been conducting research, but this gave him opportunities for investigations unavailable or much more limited in Europe than in Jamaica. See Londa Schiebinger, "Human Experimentation in the Eighteenth Century: Natural Boundaries and Valid Testing," in *The Moral Authority of Nature*, ed. Lorraine Daston and Fernando Vidal (Chicago and London: The University of Chicago Press, 2004), 402.

absolutely insist on its being done."[69] This is not to argue for equivalence between slave owners' use of inoculation to safeguard their human property and British parents' use of inoculation to preserve the lives of their children. That said, in both cases, the people undergoing inoculation had no say in the matter. Others made the decision for them to have or not have a risky medical procedure, and, unlike in other contexts, the validity or morality of making such a decision for someone else provoked neither controversy nor even public discussion. Planters' rhetoric identifying themselves as parents to enslaved "children" and British legal identification of a parental property right in children increasingly bore a relation to one another in the eighteenth century. Despite the differences—parents had far more limited scope for action concerning children than slave owners had concerning slaves, and children aged out of their dependent status—both statuses denied the ability and right to consent.[70] In both instances, doctors' often lacked the authority to dictate terms, and depending on the situation, it might be doctors or laypeople trying to pull one another into inoculating.

Inoculation in the slave plantation economy and the British military came together in the West India Regiments first established in the 1790s. Initially, these were regiments of enslaved black soldiers, mostly purchased by the army directly off slave ships from Africa. In a letter to Henry Dundas, Secretary of State for War, the commander of British forces in Martinique in late 1800 responded to questions about sickness in the West India Regiments. The general informed Dundas "it is always customary as a measure of precaution, to inoculate the new Negroes for the small Pox; as the consequences to be apprehended, should they take the infection naturally and

[69] Monro, *An Account of the Inoculation of Small Pox in Scotland*, 17.

[70] For a treatment of the changing relationship of childhood and authority during the seventeenth and eighteenth centuries that draws these connections, see Holly Brewer, *By Birth or Consent: Children, Law, and the Anglo-American Revolution in Authority* (Chapel Hill and London: the University of North Carolina Press, 2005), esp. 355-59.

without being regularly prepared, might prove extremely serious."[71] The concern here was for military effectiveness, which large numbers of soldiers sickening and dying would destroy. Preventing the spread of smallpox in the West India Regiments was important enough to justify for commanders the risk and trouble of general inoculation as a set policy. Similar to practice in the slave trade and on plantations, compulsory inoculation in the West India Regiments became a means of insuring the government's investment and of improving the labor effectiveness of soldiers. The letter to Dundas mentions nothing about obtaining the soldiers' consent or giving them choices about inoculation. This might seem unremarkable for the military, but soldiers in the West India Regiments remained enslaved during their military service.[72]

In addition, although general inoculation became standard in the slave regiments, practice differed in the rest of the army. Outside the West India Regiments, inoculation occurred mainly at the unit level and it was largely episodic, as it generally was among civilians in Britain. Until the end of the eighteenth century, although it was common, it was "dependent entirely on the initiative of regimental officers and surgeons."[73] Army medical regulations from the late 1790s still left decisions about inoculation to individual military commanders. According to one set of instructions from this period concerning regimental hospitals, "Inoculation of recruits at convenient times and places, is to be recommended by the surgeon and assistant surgeon to the commanding officer."[74] The key word is "recommended." Scholars have noted that during outbreaks of smallpox in the late eighteenth century, inoculation became a matter of course in the

[71] TNA: PRO WO 1/90, Lt. Genl. Trigge (Martinique) to Henry Dundas, 20 Nov. 1800.

[72] From 1807, soldiers could obtain freedom after satisfactorily serving out their time in the army. Buckley, *Slaves in Red Coats: The British West India Regiments, 1795-1815*

[73] Erica Charters, "Military Medicine and the Ethics of War: British Colonial Warfare During the Seven Years War (1756-63)," *Can Bull Med Hist* 27, no. 2 (2010): 282.

[74] Blair, *The Soldier's Friend*, 137.

army, with at-risk soldiers simply being inoculated.[75] There is evidence, however, of at least one instance of more general inoculation. A June 1781 letter from Charles Blagden, then an army physician in southern England, to his superior in London predicts that many soldiers would get smallpox that year, "for some of the Militia Regts. consist half or more of new men, so lately balloted in, that there has been no time to inoculate them."[76] This statement suggests that inoculation in the army could happen on a relatively large scale by the final years of the American Revolutionary War, but it also emphasizes that inoculation remained local and patchy. Practice in the West India Regiments as described by the commander in Martinique was general rather than episodic and individualized, although it too fit with the policy of local commanders having control over inoculation.

The Royal Navy also made no provisions for general inoculation during the eighteenth century, despite commanders' extensive authority for controlling sailors' lives. Although naval authorities thought inoculation useful on a limited basis by the final third of the century, they expressed concerns about it spreading smallpox and undermining other strategies for managing sailors' health and naval effectiveness. In early 1773, the navy's Sick and Hurt Board recommended on these grounds that the Admiralty deny a request from the commander of HMS *Albion*, at Plymouth, "that directions may be given, that any of the ship's complement as desire it" be inoculated by the ship's surgeon at the naval hospital ashore.[77] In 1777, however, the Board recommended offering inoculation to prisoners of war in Plymouth's Mill Prison, where two prisoners had come down with smallpox, as "the means of saving many Lives" and minimizing "Expence to Government." Even this action was to be voluntary, and it came at the

[75] Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775-82*, 49.

[76] RS, CB/1/1/14, Blagden to Adair, 10 June 1781.

[77] TNA: PRO ADM 98/10, [Sick and Hurt Board] to Philip Stevens [Admiralty], 22 Jan. 1773.

request of some of the prisoners.[78] Two decades later, Thomas Trotter claimed to know of no instances of general inoculation aboard a British naval vessel before his own recent work on two ships.[79]

As these examples suggest, the autonomy and authority of naval commanders had limits when it came to inoculation. Although smallpox remained a problem in the navy in the 1790s, naval surgeons, physicians, and officers lacked authority to compel sailors to undergo inoculation. Trotter described his difficulty persuading fifteen sailors on HMS *Orion* to allow him to inoculate them after smallpox arrived aboard the ship. According to Trotter, the sailors only warmed to his and the captain's "advice" "when they were told, that we considered it our duty to instruct them for their welfare, and that our only motive was their safety, for they were not to be compelled to undergo inoculation; but act as they pleased." Still, only ten of the sailors eventually agreed to inoculation.[80] A 1797 letter from Trotter to the Admiralty describes another instance in which all fifty-nine crewmembers aboard a ship who had never had smallpox refused inoculation.[81] Although commanders could refuse to allow inoculation, they could not make sailors undergo it.

Trotter favored general inoculation as a tool for preserving sailors' health and, thus, for improving the navy's effectiveness and protecting the nation. However, he did not advocate coercive measures to enforce compliance. Instead, he looked to gain sailors' consent for inoculation. "In order to reconcile the seamen to this practice," Trotter argued, "it would be

[78] TNA: PRO ADM 98/11, Sick and Hurt Board to Philip Stevens [Admiralty], 9 July 1777.

[79] Trotter, *Medicina Nautica*, I, 387.

[80] *Medicina Nautica*, I, 138.

[81] *Medicina Nautica: An Essay on the Diseases of Seamen: With an Appendix, Containing Communications on the New Doctrine of Contagion and Yellow Fever, by American Physicians; Transmitted to the Admiralty by Sir John Temple, Bart, His Majesty's Consul-General*, vol. II (London, 1799), 114.

necessary to circulate among them, in printed papers, the various arguments and information which point out the safety and utility of inoculation." In addition, authorities must emphasize "the constant danger" smallpox presented ashore, and chaplains should counter "religious scruples" against inoculation.[82] These suggestions say nothing about what to do if persuasion failed, although they stand alongside other suggestions for containing smallpox by limiting sailors' movements and interpersonal relations, actions that relied on coercive authority. Trotter strongly opposed the slave trade, but he recommended its practice for isolating smallpox victims by "towing them in a long-boat."[83] In addition, guards should prevent contact between the infected and the rest of the crew; measures backed by force such as these clearly presented no problems for Trotter.[84] It was only inoculation itself—the pre-emptive measure of infecting someone with a disease—that required consent, even in the navy.

In addition to the slave system and, to a much more limited extent, the military, private employment and charities provide glimpses of venues in which compulsion or coercion helped proliferate inoculation. At mid-century, the Foundling Hospital stipulated that hospital authorities ensure that prospective servants had already had smallpox.[85] In addition, the hospital had started inoculating children by 1743, and it soon mandated that children returning to the hospital from fostering who had never had smallpox were "to be inoculated before they are

[82] *Medicina Nautica*, I, 387-88.

[83] *Medicina Nautica*, I, 388.

[84] *Medicina Nautica*, II, 114, 16.

[85] *The Royal Charter, Establishing an Hospital for the Maintenance and Education of Exposed and Deserted Young Children. With the Act of Parliament Establishing the Same. Together with the by-Laws of the Said Corporation, and the Regulations for Managing the Said Hospital.*, (London: Thomas Osborne, 1746), 28; *Regulations for Managing the Hospital for the Maintenance and Education of Exposed and Deserted Young Children. By Order of the Governors of the Said Hospital*, (London, 1757), 18.

received into the House."[86] Later regulations built on this rule.[87] Slavery and the slave trade provided the only precedents at this time for this sort of compulsory use of inoculation. Consequently, it is important to note the Foundling Hospital's avowed main purpose was to turn disadvantaged children into productive and employable workers, although the hospital's authorities seem not to have referenced the slave system. Inoculation quickly became a tool for accomplishing this goal. The Marine Society likewise later stipulated that any boy it accepted and clothed for service as a sailor "shall have had the small Pox, or be desirous of being Inoculated under the care & direction of this Society."[88]

Employers other than the Foundling Hospital also required prospective servants to have undergone inoculation. A 1747 advertisement for the Smallpox Hospital in London pitched the hospital's inoculation services to, among others, people who "cannot be admitted in family service" because they had not had smallpox.[89] A publication from 1767 claimed that as soon as "the lower sort" had undergone inoculation, "they aim[ed] (the women especially) to get a servitude in London, or to use their own words *to better themselves.*"[90] It is unclear whether these people used inoculation so they could to move to London safely, or whether it was a

[86] *An Account of the Hospital for the Maintenance and Education of Exposed and Deserted Young Children. In Which Is the Charter, Act of Parliament, by-Laws and Regulations of the Said Corporation*, (London, 1749), 67; *Regulations for Managing the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 38. Immediately following this regulation, however, comes the caveat that exceptions may be necessary "when the Children are sickly, or for other good Reason."

[87] *Regulations for Managing the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 48.

[88] NMM, MSY/B/3, Marine Soc. Fair Minute Book, 29 April 1784, 27 May 1784, pp. 367, 373.

[89] *Gentleman's Magazine,* XVII (1747), 271.

[90] *Considerations on the Dearness of Corn and Provisions*, (London: Printed for J. Almon, 1767), 7. Quoted in Davenport, Schwarz, and Boulton, "The Decline of Adult Smallpox in Eighteenth-Century London," 1302.

widespread and well-known condition of employment for servants in London.[91] Elsewhere, the author of a July 1786 piece in *The County Magazine* reported having had "our three children and servant-maid all done at the same time from one lancet." How much say the servant had in this case is unknowable.[92] In making immunity to smallpox a qualification for servant employment—one of the most important sectors of employment in Britain's growing urban areas during this period, especially for women—individual employers compelled inoculation, even if indirectly. William Buchan connected such requirements to slave traders' and planters' use of inoculation to secure their human property: "Few people would chuse [*sic*] even to hire a servant who had not had the small-pox, far less to purchase a slave who had the chance of dying of this disease."[93]

Eighteenth-century British North American newspapers are replete with advertisements that use enslaved people's prior exposure to smallpox as a selling point. As early as 1728, for example, a Boston newspaper carried an advertisement for "a Negro Man, about Twenty five Years old, that has been in the Country about Fourteen Years, and has had the Small Pox."[94] Similar ads appear in other papers from throughout the colonies. Jamaica was no exception; the surviving Jamaican newspapers from the eighteenth century also contain ads emphasizing slaves' immunity to smallpox. One ad from 1779 announces the sale on a wharf in Kingston of "Two Hundred and Eight choice Young *GOLD COAST NEGROES*, who have all had the Small-Pox;

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[91] A recent article suggests the example might indicate "inoculation became part of the preparation for the sensible London migrant." The piece also, however, notes evidence of at least some employers preferring to hire domestic servants who had had already had smallpox. See "The Decline of Adult Smallpox in Eighteenth-Century London," 1301-02.

[92] "Observations on Inoculation for the Small-Pox," *The County Magazine, For the Years 1786 and 1787; Particularly Dedicated to the Inhabitants of Berkshire, Dorsetshire, Hampshire, Somersertshire, and Wiltshire...*,107.

[93] Buchan, *Domestic Medicine*, 292-93.

[94] Boston ,*The Weekly News-Letter*, January 11, 1728, [p. 2].

They being the Negro Part of the Cargo of the Snow *NANCY*."[95] Three years later, an ad for twenty "seasoned" slaves, rather than new arrivals, likewise mentioned prominently that they had all had both yaws and smallpox.[96]

Advertisements concerning free and indentured servant work also sometimes refer to smallpox immunity, although not nearly as often as advertisements for slaves. Two North American papers, one in 1731 and another in 1753, included ads for white indentured servants' remaining terms of servitude that mention that the servants had had smallpox.[97] The earliest example I have found of a similar ad in Britain is from 1760. This ad seeks "a country Boy who has had the Small-Pox, to go of [*sic*] Errands, &c."[98] Advertisements from 1766, 1772, and 1783 also list having had smallpox as a requirement for employment as a servant.[99] In at least one instance, in 1764, a woman seeking employment "as an Upper Servant in a Gentleman's Family" included among her qualifications having had smallpox. Her employment ad may also help explain the apparent paucity of such advertisements in newspapers. She claimed that the reason she resorted to "making this Publication" was that she had just moved from the country, and consequently, she could only rely on "the Gentlewoman she came to Town with" for a character reference.[100]

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[95] *The Jamaica Mercury and Kingston Weekly Advertiser*, June 12, 1779, p. 82. Emphasis in original.

[96] *The Cornwall Chronicle, and Jamaica General Advertiser*, March 2, 1782.

[97] Philadelphia *The American Weekly Mercury*, June 10, 1731, [p. 4]; *The Boston Gazette, or, Weekly Advertiser,* February 6, 1753, [p. 4].

[98] London *The Public Ledger or The Daily Register of Commerce and Intelligence,* August 30, 1760, [p. 4].

[99] *The Daily Advertiser,* July 18, 1766, [p. 3], March 4, 1772, [p. 2], February 28, 1783, [p. 3].

[100] *The Gazeteer and London Daily Advertiser,* April 10, 1764, [p. 3]. The limited scope of the Burney Collection Newspapers database may also make such ads, and smallpox immunity requirements, appear rarer than they actually were. Still, even in the papers in this collection, ads not mentioning smallpox are far more common than those that do.

Beyond this sort of indirect or economic compulsion, there is some evidence of parish authorities in England ordering people to be inoculated. Poet William Cowper wrote in 1788 that parish authorities had compelled poor people in Weston to undergo inoculation.

> We talk of our freedom, and some of us are free enough, but not the poor. Dependent as they are upon parish bounty, they are sometimes obliged to submit to impositions which perhaps in France itself could hardly be paralleled. Can man or woman be said to be free, who is compelled to take a distemper, sometimes at least mortal, and in the circumstances most likely to make it so? No circumstance whatever was permitted to exempt the inhabitants of Weston. The old as well as the young, and the pregnant as well as they who had only themselves within them, have been inoculated. Were I asked who is the most arbitrary sovereign on earth I should answer neither the King of France nor the Grand Seignior, but an Overseer of the Poor in England.[101]

In other cases, as mentioned earlier in this chapter, parishes paid for inoculation, itself a potentially controversial action. This instance of outright coercion as presented by Cowper, however, provides a succinct view of the highly charged question the relation of individual to collective rights that inoculation raised in Britain during the eighteenth century.

Family, Normalization, and Failure to Enlist Government

Despite this last example, there continued to be much less space outside the armed forces, charity and hospital institutions, and especially plantations than within them to directly compel inoculation. In the absence of a large-scale framework for this in Britain, pro-inoculation doctors and social reformers during the second half of the eighteenth century attempted to use the family as a tool for making inoculation general among the laboring population. Haygarth and others identified "the young generation" as the primary target, reflecting the turn toward using inoculation as a technique of security as well as widespread assumptions that most adults would

[101] See William Hayley and T.S. Grimshawe, eds., *The Works of William Cowper: His Life and Letters*, vol. III (London: Saunders and Otley, 1835), 282.

already have had smallpox.[102] This statement came during a period in which smallpox mortality became increasingly concentrated among young children in London, and probably across Britain and the Continent.[103] Families appear in printed materials from throughout the period as ideal venues for extending inoculation to children, particularly among the poor. Pro-inoculationists looked to use parental affection and authority over children to achieve their increasingly population-centered agendas for inoculation.

To accomplish this, they sought to enlist authority figures to convince poor and working parents to have their children inoculated. William Buchan and later John Haygarth thought clergymen especially suitable for this task, as "only they can remove...the religious objections of weak minds."[104] Pro-inoculationists such as Buchan employed the languages of duty and rights, casting parents who refused to inoculate as perpetrators of smallpox's continued threat to their children and to society. In Buchan's view, such a refusal constituted the ultimate violation of trust: "surely such parents as wilfully [*sic*] neglect the means of saving their children's lives, are as guilty as those who put them to death."[105] "A Gentile Christian," Scottish religious writer John Goldie, likewise claimed, "all such parents as neglect the duty of inoculation to their children, are no less than enemies to their own offspring."[106] These statements invert objections based on

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[102] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 179, 222; Black, *Observations Medical and Political, on the Small-Pox*, 81, 89; Thomas Percival, *Philosophical, Medical, and Experimental Essays....* (London: Printed for Joseph Johnson, 1776), 98-99.

[103] Davenport, Schwarz, and Boulton, "The Decline of Adult Smallpox in Eighteenth-Century London."

[104] Buchan, *Domestic Medicine*, 290-91; Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, I, 13-14. For another example, see The Philological Society of London, *The European Magazine, and London Review: Containing the Literature, History, Politics, Arts, Manners & Amusements of the Age*, vol. XV (London, 1789), 356. That said, writers supporting inoculation, including Buchan, frequently blamed religious authorities for promoting such objections in the first place.

[105] Buchan, *Domestic Medicine*, 290-91.

[106] A Gentile Christian [John Goldie], *The Gospel Recovered from Its Captive State, and Restored to Its Original Purity*, vol. VI (London: Printed for the Author, 1784), 149.

concerns about causing a fatal case of smallpox from inoculation. Haygarth dismissed as irredeemably "contradictory to common sense" one mother's explanation that she "could never forgive [her]self" if, after four of her children had died of smallpox, her "only remaining child should die by inoculation." This reaction was incomprehensible to Haygarth due to his population-oriented approach and assessment of risk, according to which a fatality rate "not greater than *one* in *two hundred*" constituted a resounding success.[107] Parents become murderers in these arguments not by inoculating their children, but by not inoculating them.

Pro-inoculationists broadened these arguments beyond the family to include the community. Anti-inoculation arguments, as well as arguments against inoculating the urban poor, positioned inoculated people as threats to the community. In contrast, William Black identified those who had not undergone inoculation as threats. He could "see no reason why poor persons or middling trade people should hazard the lives of young family, because their neighbour has scruples against Inoculation, and obstinately persists to reject that certain means of security."[108] This statement twins parents' duties to their own and to their neighbors' children, and it underlines Black's goal of achieving "security" through "early, and universal inoculation"[109] Removing people from the ranks of the susceptible aimed to preserve their health, but it also aimed to preserve the health of others. Refusing to have one's children inoculated violated their rights and the collective rights of the community to live in security from a preventable disease; inoculation was figured here as not just a personal and parental duty but also

[107] Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, II, 482. Emphasis in original.

[108] Black, *Observations Medical and Political, on the Small-Pox*, 85-86.

[109] *Observations Medical and Political, on the Small-Pox,* 81, 89, quote on 89.

a social one.[110] Pro-inoculationists thus cast refusal of and opposition to inoculation as backward, products of a mainly low class ignorance that blocked improvement and endangered lives and happiness within families and across society more generally.

This view placed the middling and upper classes in the roles of parents and the lower classes in the roles of children who lacked the motivation, intelligence, and ability to take care of themselves. In 1778, Haygarth established the Smallpox Society in Chester, an associational charity that offered inoculation gratis to poor children, as well as rewards to poor families that followed the Society's regulations.[111] The Society in 1780 asked its affluent supporters "to explain to your ignorant and indigent neighbours and dependents the benevolent purpose of the Society, and to exert all your influence over them, not to neglect the offered blessing." If this effort failed, they were to emphasize "the danger and criminality of wantonly catching infection from inoculated patients."[112] Criminality acts here as a moral term rather than a legal one. No national laws existed on the topic, although some local governments in Britain and its colonies banned or restricted inoculation at various points. When authorities in Chelmsford accused the famous inoculator Daniel Sutton of causing a smallpox epidemic there in 1766, they filed an indictment against him for nuisance, not for inoculation. In fact, according to a public booster of Sutton, "every Apothecary in the town was an Inoculator," and, just as Sutton did, they inoculated people at their own homes in town, points that the Grand Jury made in dismissing the

[110] Roy Porter and Dorothy Porter, *In Sickness and in Health: The British Experience, 1650-1850* (New York: Basil Blackwell, 1988), 159-60. This example briefly suggests the social elements of inoculation as a duty for social and political authorities, but not for individuals (beyond the example of a father's duty to preserve his own life for the welfare of his family).

[111] The Chester Society provided the example for similar organizations in Liverpool and Leeds.

[112] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 180-81.

indictment.[113]

Over time, the Chester Society's approach came to place more and more emphasis on control and reinforcing socio-economic hierarchies, despite an apparent early recognition of the difficulties this could pose for gaining cooperation from poor people. A 1781 report noted the Society had "in deference to the opinion of some respectable persons" offered inoculation in a hospital to Chester's poor the previous year. The attempt failed. "Not a single person could be found in Chester, who would enter an hospital for the sake of inoculation." A change to offering inoculation in people's homes, however, succeeded.[114] This approach provided a means for minimizing the disruptiveness of inoculation to people's everyday lives, hopefully increasing its attractiveness and, crucially, its familiarity. Lettsom and his allies emphasized the reluctance of poor people to bring their children to hospitals for inoculation, whether from inability, expensiveness, mistrust, or resentment of hospital regulations and hierarchies.[115] Still, during an epidemic in 1782, the Society advertised inoculation free of charge to all, "provided they bring a recommendation from" a "member[] of the small-pox society, within the next ensuing ten Days." Those without recommendations "must be excluded."[116] By making free inoculation contingent on having a recommendation from one's socio-economic superiors, the Society pushed a patron-client relationship on Chester's poor and laboring population.[117] Perhaps this move contributed

[113] Houlton, *The Practice of Inoculation Justified*, 56-60, quote on 57. In Houlton's account, the incident had little to do with attitudes toward inoculation. He argued that the epidemic provided a chance for "Mr *Sutton's* enemies" to manufacture charges to attack him.

[114] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 187.

[115] Lettsom, *Of the Improvement of Medicine in London*, 3; Black, *Observations Medical and Political, on the Small-Pox*, 73-74. They also argued that inoculating in hospitals had significant health risks, and that inoculation (and many medical treatments) at home had additional social and health benefits.

[116] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 194.

[117] A similar dynamic arose from the recommendation system for voluntary hospitals. See Wilson, "The Politics of Medical Improvement in Early Hanoverian London," 11-13.

to the low numbers of people the Society reported inoculating in 1782, a failure that seems to have perplexed its membership.[118]

Another paternalist strategy, providing monetary rewards for cooperation, aimed to inculcate habits among poor people of inoculating their children, following health regulations, and reporting local events. This strategy followed from the notion that among the best ways to secure compliance from members of the lower classes was to pay them. "It is not to be imagined," Buchan asserted, "what effect example and a little money will have upon the poor; yet, if left to themselves, they would go on for ever in the old way, without thinking of any improvement." Buchan advanced a combination of rewards and inoculation paid for by the government as a temporary expedient for overcoming objections and old habits and making inoculation general. This approach would, he argued, be the first step in achieving the larger aim of normalizing and routinizing inoculation. "Afterwards custom, the strongest of all laws, would oblige every individual to inoculate his children to prevent reflections."[119] Other supporters of inoculation struck similar notes. A report in Sir John Sinclair's 1793 *Statistical Account of Scotland* suggested the government give "a premium...for some limited time" to overcome "prejudice" against inoculation "amongst the middling and lower ranks of people."[120] In the view of another writer, normalizing inoculation would mean that people effectively governed themselves according to their own and the community's best interests: "and I put not the smallest doubt, that if once people were accustomed thereto, they would look thereon as being, in every

[118] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 197-98.

[119] Buchan, *Domestic Medicine*, 295-96.

[120] John Sinclair, *The Statistical Accouit of Scotland: Drawn up from the Communications of the Ministers of the Different Parishes*, vol. VII (Edinburgh, 1793), 279.

respect, as great a duty as they do of baptism itself."[121] Haygarth's Society eventually cancelled the payments for inoculation, supposedly because people viewed them as bribes to do something wrong.

To organize its operations, the Chester Society created a system of surveillance under the supervision of inspectors who submitted reports on standardized printed forms.[122] Yet, the inspectors' authority was severely circumscribed. They relied for information on voluntary reports from people living in Chester, and they had no ability beyond withholding monetary rewards to enforce compliance with the Society's regulations. The smallpox outbreak in 1780, which the Society blamed on "a new-raised regiment of soldiers, who were under no controul" [*sic*], provides an example of this regulatory impotence. The Society's inspector observed a soldier "in the most infectious stage" of smallpox walking around town. Although the inspector "desired" the soldier "to take care that he did no mischief by spreading it," the soldier rebuffed him. The soldier asserted that the bonds of reciprocal obligation between superiors and inferiors had broken down, and he disavowed responsibility for the welfare of the community. According to Haygarth's *Inquiry,* "His answer explained the conduct of them all [the soldiers]; 'nobody takes care of me, and I will take care of nobody.'" Allegedly, the many unsupervised soldiers spread smallpox throughout Chester, overwhelming the lone inspector and causing the Society to suspend its regulations. When it reinstated them, it increased the number of inspectors from one to six, each responsible for a section of the city, but they remained subject to the same limitations in executing their duties.[123]

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[121] A Gentile Christian [John Goldie], *The Gospel Recovered from Its Captive State,* VI, 147-48, quote on 48. In this writer's view, legal compulsion should provide the initial means for establishing inoculation as customary.

[122] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 169-73.

[123] *An Inquiry How to Prevent the Small-Pox*, 188-89. The regiment apparently had no officers or medical

This anecdote encapsulates two of the main problems the society encountered: inability to control people's behavior and the supposed indifference of the poor to spreading smallpox. For Haygarth and his associates, even poor people's efforts to manage smallpox threatened both individuals and the community. Many people "refused inoculation," and were "fearless or rather desirous that their children should be infected with the natural smallpox." In one area of Chester, people ignored the society's inspector and "purposely propagated the distemper, carrying the poison, and even the patients, from one house to another, without reserve," causing several deaths. "The poor people" in another area allowed their children contact with people who had smallpox, which the society ascribed partly to their not knowing about the monetary rewards for inoculation. Other parents, however, "purposefully exposed" their children to "natural" smallpox after refusing to have them inoculated. The society could only explain such actions as resulting "from a popular delusion," overcoming which constituted "the chief difficulty with which this society has contended."[124] Haygarth portrays the poor here as a class so divorced from rational thinking and behavior as to threaten society, a portrayal that resonates with the pathologizing language for describing the lower sort discussed in Chapters 2 and 3.

Such practices became unintelligible and threatening to physicians and other medical commentators as they increasingly aimed to secure the health of the laboring population by imposing uniformity and regularity on anti-smallpox measures. In the 1720s, reports of "buying the smallpox" as a longstanding folk practice in Wales appeared in the Royal Society's *Philosophical Transactions* as support for inoculation.[125] It remains unclear how extensive such

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personnel present.

[124] *An Inquiry How to Prevent the Small-Pox*, 198-99.

[125] Perrot Williams, "Part of Two Letters Concerning a Method of Procuring the Small Pox, Used in South Wales. From Perrot Williams, M. D. Physician at Haverford West, to Dr. Samuel Brady, Physician to the Garrison at Portsmouth," *Philosophical Transactions* 32, no. 370-380 (1722); "Part of a Letter from the Same Learned and

practices were during the eighteenth century, but Alexander Monro reported in a 1765 pamphlet being "assured" that in the parts of the Scottish Highlands,

> it has been an old practice of parents ...to watch for an opportunity of any child of their neighbours being in good mild small pox, that they may communicate the disease to their own children, by making them bed-fellows to those in it, and by tying worsted threads wet with the pocky matter round their wrists.[126]

A similar practice of "buying smallpox" also emerged independently in Africa.[127] These practices defied the regularity and control Haygarth and others like him looked to establish over inoculation. Many pro-inoculationists during the second half of the eighteenth century encouraged laypeople to inoculate as a means of extending the practice's reach and familiarity as a habit rather than a medical intervention. Yet, even this encouragement had no room for techniques that deviated from professional medical orthodoxy, but as the Chester example shows, people continued to use them, despite pro-inoculationists' efforts.

By the 1780s, the difficulty of controlling people's behavior increasingly led proponents of general inoculation to attempt to employ the government's powers to compel obedience and promote inoculation. William Black deemed preventing the spread of smallpox "not only a medical, but also a political, and a great national question." In response to Parliament's failure to consider this question, he accused both Parliament and the public of "stupid insensibility and indifference."[128] Prominent mid-century inoculation supporter James Kirkpatrick had earlier disavowed the practice of "urging or enforcing" inoculation on anyone, aiming to avoid feeling

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Ingenious Gentleman, Upon the Same Subject, to Dr. Jurin, R. S. Secret," *Philosophical Transactions* 32, no. 370-380 (1722); Richard Wright, "A Letter on the Same Subject, from Mr. Richard Wright, Surgeon at Haverford West, to Mr. Sylvanus Bevan, Apothecary in London," ibid.

[126] Monro, *An Account of the Inoculation of Small Pox in Scotland*, 3-4.

[127] Eugenia W. Herbert, "Smallpox Inoculation in Africa," *The Journal of African History* 16, no. 04 (1975): 547.

[128] Black, *Observations Medical and Political, on the Small-Pox*, 60-61, 90.

culpable for deaths.[129] Buchan had claimed that the government should promote inoculation, but he ruled out legal coercion. In 1781, Black advocated a law compelling parishes to subsidize inoculation for poor people. He also suggested Parliament follow Indian practices by restricting inoculation to certain seasons, in combination with quarantining anyone who contracted smallpox naturally. This last suggestion came despite Black's characterization of more general quarantines as "medical tyranny."[130]

Other writers went further in their suggestions for using government power. As did Black and Haygarth, Liverpool physician James Currie suggested legal restriction of general inoculation to set periods: in this case, two short periods each year. This would, according to Currie, work as a means of frightening affluent parents into inoculating only during these times, making the danger of smallpox infection throughout the year more predictable. In addition, he hoped the change would force people to follow instructions for containing infection. The ultimate result would be inoculation's safety to all, "overcom[ing] the fears of the weak, and sham[ing] the worthless into conformity, which their sense of duty or feelings of humanity could not produce." Currie reported that a general inoculation in Liverpool in 1781 had achieved the first two of these goals.[131] John Goldie looked for more direct government action to shape individuals' behavior. He recommended "an express act of parliament...to cure the ignorance of the public, and thereby oblige every particular parent or parents to inoculate their children."[132]

Similarly, despite Haygarth's protestations that his plan had succeeded in Chester, and

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[129] Kirkpatrick, *The Analysis of Inoculation: Comprizing the History, Theory, and Practice of It: With an Occasional Consideration of the Most Remarkable Appearances in the Small Pocks*, vii.

[130] Black, *Observations Medical and Political, on the Small-Pox*, 89, 92.

[131] Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, II, 451-52.

[132] A Gentile Christian [John Goldie], *The Gospel Recovered from Its Captive State,* VI, 147.

that people would accept inoculation once they had seen its benefits, he eventually concluded that strict government regulation was necessary. Even in his publication on Chester, Haygarth advocated legislation to promote inoculation and "exterminate" smallpox in Britain. This piece repeatedly notes the society's failures to overcome the indifference and even resistance of "a large proportion of the inhabitants."[133] Perhaps trying to paint his and his associates' efforts in the best possible light, Haygarth later wrote to correspondents in Geneva of the "unaccountable" "vulgar folly" of the poor in Chester universally refusing inoculation in 1783. The Society's subsequent dissolution "was occasioned...solely by the ignorance and delusion of the populace."[134] The 1793 *Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain* reflected these views and aimed to eliminate the space for "ignorance and delusion" to influence general inoculation efforts. This plan kept a place for extra-governmental associations, but it proposed embedding them in a nation-wide system of surveillance backed and overseen by government agents and institutions at both local and national levels. The "easy regulations" from Chester would be "aided and strengthened by legal premiums and punishments," and inoculation would effectively become compulsory.[135]

The *Sketch* pushed back against objections that enacting its plan would violate individuals' rights. Haygarth claimed the suggestion that his plan "might be dangerous to English liberty…extremely shocked and surpised" him.[136] From the outset, however, he requested his readers not make snap judgments of his plan based on, among other things, concerns about rights. The correct measures of the plan, Haygarth asserted, were utility and effectiveness.

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[133] Haygarth, *An Inquiry How to Prevent the Small-Pox*, 198-201, 22-23.

[134] *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, II, 481-82.

[135] *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, I, 25, 35, 114-28.

[136] *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, I, 175.

Nonetheless, although Haygarth's dedication of his 1793 piece to George III implied some measure of royal approval for the plan, his and others' attempts to use the powers of the national government to enforce general inoculation failed. Somewhat ironically, Haygarth's proposal marked an authoritarian turn in approaches to combating smallpox that was ignored by an increasingly reactionary political regime during the 1790s, partly due to Haygarth's and his plan's associations with dissenters and radical politics.[137] Proposals for reform covering a variety of topics failed during this period. There was, however, probably more to the failure of Haygarth's than the specific political climate of the decade. According to James Currie, the plan was medically sound, but "it requires the assistance of government, and government is not in the habit of such objects."[138] Parliament exhibited a reluctance to legislate on medical issues during the eighteenth century. Further, general inoculation, as a tool of a particular set of projects for governing society, was a political issue in its own right, not just through association with other political concerns. Haygarth's plan epitomized the efforts of supporters of general inoculation during the late eighteenth century to recast conceptions of rights to privilege the collective and of government's proper sphere of action to include preemptive rather than simply reactive measures to safeguard the health of the population. These remained issues during the early nineteenth century in debates about vaccination.

Vaccination

In 1798, physician Edward Jenner published research on a form of inoculation for smallpox eventually known as vaccination.[139] Like inoculation, vaccination worked by

[137] Lobo, "John Haygarth, Smallpox and Religious Dissent in Eighteenth-Century England," 219.

[138] Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, II, 449.

[139] Edward Jenner, *An Inquiry into the Causes and Effects of the Variolae Vaccinae, a Disease Discovered in Some of the Western Counties of England, Particularly Gloucestershire, and Known by the Name of the Cow Pox*

introducing disease matter into a person's body through a cut or scratch, causing a mild disease in order to provide immunity from smallpox. Vaccination's major difference from inoculation was that it infected people with cowpox rather than smallpox itself. Cowpox arises from a virus related to *variola*, the virus that causes smallpox, but cowpox affects humans only mildly.[140] Supporters of vaccination argued that this made it safer than inoculation, because it eliminated the chance of accidentally causing a serious case of smallpox. For the same reason, vaccination carried no danger of triggering smallpox outbreaks in the community at large.

This apparently decreased riskiness resulted in vaccination spreading through Britain and its colonies far more rapidly than inoculation had. In 1806, a committee of the Royal Jennerian Society for the Extermination of the Small Pox claimed it "probable that within the last seven years, nearly as many persons have been inoculated for the cow-pox, as were ever inoculated for the small-pox."[141] According to one historian, one million people in India underwent vaccination by 1807.[142] Many medical writers and physicians who had promoted inoculation changed course and denounced it in favor of vaccination. John Coakley Lettsom excoriated those "even of the medical profession" who "attempted to excite the fears of parents, and encouraged the

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(London, 1798). The practice initially went by several names, including vaccine inoculation. I use "vaccination" throughout to avoid confusion with practices of inoculation with smallpox, also known as variolation.

[140] There has been disagreement among scholars about the identity of the disease involved in vaccination, but whether it was *vaccinia*, cowpox, or an attenuated form of smallpox is unimportant for this study. What matters most here are what early nineteenth-century people, from physicians to government officials to members of the working classes, thought they were dealing with and how that shaped their approaches to vaccination. As Andrea Rusnock points out, they "believed that there was one true cowpox" and that vaccination used it. See Andrea Rusnock, "Catching Cowpox: The Early Spread of Smallpox Vaccination, 1798-1810," *Bulletin of the History of Medicine* 82, no. 1 (Spring 2009): 20.

[141] *The Monthly Magazine; or, British Register,* vol. XXI (London, 1806), 62.

[142] Michael Bennett, "Passage through India: Global Vaccination and British India, 1800-05," *The Journal of Imperial and Commonwealth History* 35, no. 2 (2007): 202.

inoculation of the Small pox," thereby propagating smallpox and killing children.[143] Looking back over the past century, Lettsom claimed that inoculation "has not lessened, but really increased, the number of infantile deaths."[144] The Medical Committee of Norwich called inoculation's fatality rate of one in 300 "a circumstance of no trifling consideration."[145] Such about-faces did not go unnoticed. Vaccination opponent William Cobbett, for example, sarcastically questioned the judgment of vaccination supporters, observing that those characterizing support for inoculation as backward had previously said the same thing about resistance to inoculation. Vaccination supporters, he suggested, should not be trusted.[146]

As this example suggests, although vaccination became widely popular within a few years of its introduction, questions about its safety, effectiveness, and morality persisted. In 1817, surgeon William Lodge Kidd stated that he had recently seen an increase in smallpox in his Irish practice, including among people reported to have undergone vaccination. As a result, he reported, "vaccination has in that part of ye Country lost much of its Credit as a prophylactic against Smallpox."[147] Jenner similarly noted in 1822 that vaccination became "paralys'd" as soon as "an ignorant Villager sees, or hears, of the small pox, however modified, after vaccination."[148] In 1819, the Army Medical Board asked the chief army medical officer in Jamaica, Jacob

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[143] John Coakley Lettsom, *Expositions on the Inoculation of the Small Pox, and of the Cow Pock*, 2nd ed. (London: Printed by H. Fry for J. Mawman, 1806), 5.

[144] *Expositions on the Inoculation of the Small Pox, and of the Cow Pock*, 2nd ed. (London: Printed by H. Fry for J. Mawman, 1806), 3.

[145] Thomas Pruen, *A Comparative Sketch of the Effects of Variolous and Vaccine Inoculation, Being an Enumeration of Facts Not Generally Known or Considered, but Which Will Enable the Public to Form Its Own Judgment on the Probable Importance of the Jennerian Discovery* (Cheltenham, 1807), 66.

[146] [William Cobbett], *Cobbett's Annual Register*, vol. III (London: Printed by Cox and Baylis, 1803), 99.

[147] HL, HM 47866, "A concise Account of the Typhus Fever at present prevalent in Ireland, as it presented itself to the Author in one of the Towns in the North of that Island," pp. 7-8.

[148] NMM, MSS74/073, Edw. Jenner (Berkeley) to Doctor Trotter (Newcastle), 26 Nov. 1822.

Adolphus, if vaccination acted "as a total preventive against" smallpox or if it only made smallpox "more mild." Adolphus responded that he had little information to provide. He claimed to "have been often employed in vaccination," but that he "not seen a case of Small Pox since 1804." He concluded that this situation demonstrated the success of vaccination in Jamaica.[149]

Despite uncertainty about and resistance to vaccination in some quarters, it received more support than inoculation had from the institutions of national and colonial governments. For example, the Spanish government sent a vaccination expedition to its colonies around the world in 1803, while the British government sent two military physicians to the Mediterranean to spread vaccination in 1801. The physicians vaccinated both civilians and British sailors and soldiers across the region.[150] Further, although compulsory inoculation never became a formal policy in the army as a whole, vaccination did starting in 1801, following a trial the previous year.[151] Printed instructions for army surgeons in the 1810s included a provision for compulsory vaccination "in all convenient circumstances" for "every Man who does not bear the mark of the Small Pox."[152] With the risk of infection apparently no longer an issue with the advent of vaccination, an approach to managing health in the military that had previously been restricted mainly to enslaved black soldiers now applied to free white soldiers, as well. Yet, while the

[149] NLJ, MS 2, Adolphus to S. Reed, 1 Dec. 1819; "Remarks upon certain queries proposed by the Army Medical Board &c &c &c," 26 Oct. 1820.

[150] Rusnock, "Catching Cowpox," 32-34. See this article also for more on the rapid spread of vaccination around the world, as well as the challenges involved in propagating and transporting cowpox. See also Michael J. Bennett, "Smallpox and Cowpox under the Southern Cross: The Smallpox Epidemic of 1789 and the Advent of Vaccination in Colonial Australia," ibid.83; Bennett, "Passage through India; Catherine Mark and José Rigau-Pérez, "The World's First Immunization Campaign: The Spanish Smallpox Vaccine Expedition, 1803-1813," *Bulletin of the History of Medicine* 83, no. 1 (Spring 2009).

[151] TNA: PRO WO 40/14, Henry [?] (Horse Guards) to Matthew Lewis, 27 Aug. 1800; Charters, "Military Medicine and the Ethics of War," 282.

[152] WL, RAMC/210/3 [Observations re Regimental Hospitals and duties of the Brigade Surgeon, c. 1811-1823], p. 4.

Admiralty issued orders for vaccination in the navy on a similar timeline, naval regulations from 1806 still made the practice voluntary. As with Trotter's suggestions for inoculation, these regulations went no further than instructing surgeons to recommend vaccination and to attempt to convince sailors who objected to change their minds.[153] An 1812 report from the National Vaccine Establishment to the Home Secretary suggested that vaccination remained voluntary, though widespread and effective, in the navy.[154]

The British government made no laws in the early nineteenth century concerning vaccination for civilians in Britain, but it did take measures indirectly to promote vaccination. In 1802 and 1807, Parliament voted large sums of money to Jenner, public statements of official government approval for vaccination. At least one participant in the debate over the second payment thought the government should go further and regulate inoculation. He framed the issue in terms that closely resembled the arguments of Dimsdale and others against general inoculation of the urban poor in the 1770s and 1780s. He advocated limiting individual rights as a means of preserving the collective right to safety from disease:

> though he should not wish to use any compulsion, or to interfere with the liberty that all persons should have, to act as they thought adviseable for their own health, or for that of their family...persons who preferred the inoculation for the small-pox, should not be allowed to endanger the health of others. Such persons...ought to be confined to their houses whilst affected by the disease, and not suffered to spread infection through the community.[155]

Others employed the same reasoning to press the government to regulate or even prohibit

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[153] *Regulations and Instructions Relating to His Majesty's Service at Sea*, (1808), 285.

[154] *The Journals of the House of Commons*, vol. 67 (1812), 875.

[155] *The Parliamentary Debates from the Year 1803 to the Present Time: Forming a Continuation of the Work Entitled "the Parliamentary History of England from the Earliest Period to the Year 1803"*, vol. IX (London, 1812), 1010.

inoculation, but with no success.[156] A bill imposing restrictions on inoculation, including banning it within three miles of any town, city, or village with ten or more houses, failed to pass in 1808.[157] Thomas Christie, on returning to Britain after working as chief medical officer in Ceylon, disapproved of the situation. He expressed hope "that the measures pursued by the Government there [Ceylon], for prohibiting variolous inoculation, and encouraging Vaccination, may be thought worthy the attention of the British Legislature."[158] No further parliamentary action, however, was forthcoming. The same year the London Royal College of Surgeons announced that it would no longer countenance inoculation, but this decision applied only to members of the college.[159]

Beyond compensating Jenner, Parliament largely confined itself during the first third of the nineteenth century to funding the National Vaccine Establishment. The establishment, which before 1808 was the subscription-funded Royal Jennerian Society, supplied vaccinators with vaccine and offered free vaccination to the poor. In addition, the society lobbied an array of religious and political authorities in Britain and the colonies in support of vaccination, and it conducted an extended print campaign promoting vaccination to the public.[160] Under its new

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[156] For example, see *Gentleman's Magazine*, LXXII (1802), 1007; Pruen, *A Comparative Sketch of the Effects of Variolous and Vaccine Inoculation*, 45; *The Annual Register, or a View of the History, Politics, and Literature, for the Year 1808*, (London, 1820), 30.

[157] *Bill [as Amended by the Committee] to Prevent the Spreading of the Infection of the Small Pox.*

[158] Thomas Christie, *An Account of the Ravages Committed in Ceylon by Small Pox, previously to the Introduction of Vaccination; with a Statement of the Circumstances attending the Introduction, Progress, and Success of Vaccine Inoculation in that Island* (1811), quoted in *Gentleman's Magazine*, LXXXI (1811), 145.

[159] A. Highmore, *Philanthropia Metropolitana: A View of the Charitable Institutions Established in and near London, Chiefly During the Last Twelve Years* (London: Longman, Hurst, Rees, Orme, and Brown, 1822), 366-67.

[160] It was particularly concerned about quickly investigating claims of vaccination's ineffectiveness or dangerousness and rebutting them in print. See WL MS. 4304, Minutes of the Medical Committee of the Royal Jennerian Society for the Extermination of the Small Pox, 17 March and 19 May 1803. For the Society's other activities mentioned above, see this source more generally.

name, the establishment carried a government mandate "to extend the benefits of vaccination to all parts of the British dominions," its directorship was set by government, and it submitted annual reports to the Home Secretary. Similarly, although the Jamaican Assembly established a vaccine institute in 1813, it passed no laws mandating vaccination. The Jamaican institute lasted only until 1821, and it existed primarily to solve the problem of procuring vaccine. British authorities in India during this period took a more direct role in promoting vaccination than did national government authorities in Britain, though not as part of any formal "imperial policy" and, again, without a legal framework.[161] By 1803, surgeon John Ring contrasted the enthusiastic support of medical and colonial authorities in India for vaccination to Parliament's inaction beyond "a few guineas" for Jenner. "Parliament," Ring stated, echoing William Black in the 1780s, "has nothing to fear from the small-pox."[162]

Although the advent of vaccination marks a turning point in histories of public health, most of the basic approaches and goals for implementing vaccination as a tool for governing populations carried on from the earlier period. Vaccination created new logistical challenges, because cowpox was an uncommon disease that traveled much less easily than smallpox did. These challenges stimulated a relatively high degree of institutional coordination, with the formation of vaccine establishments and the development of technologies and networks for transporting cowpox.[163] In addition, testing and promoting vaccination occurred on a newly large scale using innovative techniques, often in hospital settings, "signal[ing] a new approach to

[161] Bennett, "Passage through India," 207-10, 15.

[162] John Ring, *A Treatise on the Cow-Pox; Containing the History of Vaccine Inoculation, and an Account of the Various Publications Which Have Appeared on That Subject, in Great Britain, and Other Parts of the World*, vol. II (London: Printed by the Philanthropic Society, 1803), v-vi.

[163] Rusnock, "Catching Cowpox."

medical practice."[164] Still, important continuities existed with inoculation. As with inoculation, the focus remained more on population than individual health. Lettsom, for example, argued for eliminating inoculation because it protected individuals to the detriment of the population.[165] To address claims that vaccination sometimes failed to prevent smallpox, vaccination supporters used a variation of eighteenth-century inoculation supporters' "merchant's logic." The Medical Committee of Norwich, among others, provided a comparative cost-benefit analysis of vaccination and inoculation. Since, the committee argued, out of 250,000 people vaccinated perhaps two might die from smallpox, and 834 would be expected to die out of the same number of people inoculated, vaccination was clearly the best means for providing security from smallpox—for both individuals and the population.[166] Some people would unavoidably still die, but in far more acceptable numbers.

Economic considerations about labor productivity remained closely tied to this focus on governing through the manipulation of populations, even as thinking about the merits of encouraging population growth shifted. William Buchan had argued that "many more useful lives [would have] been saved" if even a small portion of the money Parliament provided the Foundling Hospital during the 1760s had gone instead to promote inoculation.[167] In early nineteenth-century editions of the *Essay on Population*, Thomas Malthus made a similar argument in presenting himself as "one of the warmest friends to the introduction of the cow-

[164] "Medical Statistics and Hospital Medicine: The Case of the Smallpox Vaccination," *Centaurus* 49, no. 4 (2007): 337.

[165] *Gentleman's Magazine*, LXXII, 1007.

[166] *Memorial of the Medical Committee of Norwich*, p. 9, printed in Pruen, *A Comparative Sketch of the Effects of Variolous and Vaccine Inoculation*, 66-67. The obvious difference from eighteenth-century arguments for inoculation is that the pro-vaccination reasoning no longer had to weigh the risk of directly causing a serious case of smallpox. That said, the question of acceptable and unacceptable risks and death rates remained fundamental.

[167] Buchan, *Domestic Medicine*, 295-96.

pox," contrary to the allegations of several of his critics. According to Malthus, "the smallness of the proportion dying under the age of puberty" provided "the best criterion of happiness and good government."[168] Widespread vaccination for some, including Lettsom, promised economic benefits by encouraging population growth, creating a larger labor force.[169] For Malthus, on the other hand, the economic advantages would come from preserving the lives of people already born rather than from increasing births. According to his reasoning, someone who had survived early childhood was "more likely to contribute to the creation of fresh resources" than was a new infant. Hence, "it is a great loss of labour and food to begin over again."[170] Humanitarian concern has a place in these arguments for both inoculation and vaccination, then, but problems of how to maximize labor effectiveness and economic productivity clearly loom large in each.

In this, and in their focus on the poor, these are representative arguments not just for the eighteenth century but for the early nineteenth, as well. Following the well-worn path of pro-inoculationists, vaccination supporters emphasized vaccination's specific utility for mobilizing and harnessing labor on a mass scale. For example, a biographical sketch of Jenner in 1803 identified vaccination as a major contributor to the success of the British expedition to Egypt. Vaccination "preserved" the British sailors and soldiers, providing a "vast advantage" in "a contest on which the fate of Europe depended," according to the author.[171] In a more clearly economic vein, a Mr. Simmons of Manchester recommended vaccinating all African slaves "as soon as taken on board" slave ships. "By this means," Simmons continued," their lives should be

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[168] T.R. Malthus, *An Essay on the Principle of Population; or, a View of Its Past and Present Effects on Human Happiness; with an Inquiry into Our Prospects Respecting the Future Removal or Mitigation of the Evils Which It Occasions*, First American, from the Third London ed., vol. II (Washington City: Printed and Published by Robert Chew Weightman, 1809), 509-10.

[169] *Gentleman's Magazine,* LXXII, 1006.

[170] Malthus, *Essay on the Principle of Population,* 3rd ed., II, 509.

[171] *Public Characters of 1802-1803,* (London, 1803), 37.

preserved, and their value enhanced by the security, when arrived at the place of their destination."[172] This suggestion aligns with the uses of inoculation as a form of insurance and labor enhancement in the slave trade and on plantations during the eighteenth century. Although these uses could apply to individual enslaved people, in both cases, the emphasis lay on securing the productivity of the enslaved population more generally. Pro-vaccination writers also commonly pointed out economic benefits of vaccination over inoculation of the poor in Britain. One writer claimed that because Dimsdale's approach to inoculation took two weeks, it resulted in substantial lost wages for laboring people and lost labor for "the State."[173] In contrast, the medical authorities of hospitals in Manchester cited as a benefit of vaccination the lack of need for preparatory regimens and parental attendance on children. With vaccination, parents would not lose work time "to the injury of the support of the rest of the family."[174]

The similarities in practices, motivations, and goals of inoculation and vaccination ensured that concerns about rights and authority surrounding general inoculation during the late eighteenth century remained front and center in debates about vaccination. While vaccination avoided the ethical problem of purposefully infecting people with smallpox, it substituted similar problems. That vaccination infected people with a disease of animals provided sufficient grounds for some to label it immoral or dangerous. Critics of vaccination also increasingly alleged that arm-to-arm vaccination might spread other diseases, especially syphilis. These were moral, ethical, and public health objections, and they raised the same questions about rights that inoculation had, albeit with a clearer focus on government's authority to compel people to undergo vaccination. William Cobbett professed no problem with allowing vaccination to occur,

[172] Ring, *A Treatise on the Cow-Pox*, II, 504.

[173] Pruen, *A Comparative Sketch of the Effects of Variolous and Vaccine Inoculation*, 59.

[174] Quoted in *A Comparative Sketch of the Effects of Variolous and Vaccine Inoculation*, 63-64.

but he objected strongly to the notion of compelling it by law, as he accused William Wilberforce and Dr. John Clarke of attempting to do. The plan Cobbett attacked in fact aimed to outlaw inoculation. In his view, however, this was tantamount to compelling vaccination, because the law would leave "every man" only a choice between "suffer[ing] the veins of his child to be impregnated with the disease of a beast" or allowing his child to contract smallpox. Such a law, Cobbett claimed, was "a measure to be adopted in no country where the people are not vassals or slaves." This objection upheld individual freedom of action from supposedly mounting government interference, but it did so in a sharply gendered way. Cobbett expressed disgust for the "minute and meddling politicians" who advocated "laws for taking out of a man's hands the management of his household, the choice of his physician, and the care of the health of his children."[175]

Such views helped defeat the arguments described above for a legislative ban of or restrictions on inoculation, although a small degree of judicial restriction occurred. In 1815, London apothecary Gilbert Burnet was indicted "for causing children whom he had inoculated...to be exposed improperly in the public streets and highways, to the imminent danger of communicating the infection to others." The judge avoided comparing inoculation and vaccination, but stated, "It had always been illegal to inoculate in an infectious way, as this defendant had done." As a deterrent, he sentenced Burnet to six months in prison.[176] This judgment had no basis in any previous law specifically concerning inoculation. Instead, it created a new legal example for subsequent practice. Later the same year, a letter appeared in *The Examiner* about a surgeon who offered both inoculation and vaccination to the poor. The letter

[175] [William Cobbett], *Cobbett's Annual Register*, III, 99.

[176] *The Examiner*, No. 389, 11 June 1815, pp. 383-4.

claims that "the report of Burnet's sentence informed Mr. T. [the surgeon, John Taunton], for the *first time,* that children ill with the inoculated Small-pox ought not to be exposed." The Attorney-General dropped the charges brought against Taunton, because Taunton supposedly changed his practice "since the late decision of that Court in the sentence of Burnett."[177] The Burnet case established a precedent for mildly regulating inoculation, but not for banning it.

With only limited success in enlisting government to suppress inoculation and bring about general vaccination, vaccination supporters used strategies pioneered by pro-inoculationists to achieve their goals among the poor. The supposed power of money to influence poor people's behavior continued to receive great emphasis. Free vaccination stood at the center of pro-vaccination efforts. Lettsom also reiterated earlier suggestions that providing rewards to poor people was necessary to secure compliance.[178] Likewise, in 1803, the Royal Jennerian Society claimed it "the duty of every member of society, and particularly of every member of the medical profession, to discourage the inoculation of the Small-pox."[179] Following from this invocation of duty, the Society continued earlier strategies for using families to achieve broader, population-oriented goals of eliminating smallpox. For example, it printed "An Address to be Presented by Clergymen at the Baptism of Children" that cast vaccination as the duty of caring parents and responsible members of society.[180] The pairing with baptism of an endorsement of vaccination represented an attempt to legitimate vaccination through association with religious

[177] "Small-Pox Inoculation," *The Examiner,* no. 417, 24 Dec. 1815, p. 828.

[178] *Gentleman's Magazine,* LXXII, 1006.

[179] *Address of the Royal Jennerian Society for the Extermination of the Small-Pox, with the Plan, Regulations, and Instructions for Vaccine Inoculation. To Which Is Added, a List of Subscribers*, (London, 1803), 51.

[180] *Address of the Royal Jennerian Society for the Extermination of the Small-Pox, with the Plan, Regulations, and Instructions for Vaccine Inoculation. To Which Is Added, a List of Subscribers*, (London, 1803), 53-55.

authority. In addition, it was an attempt at making vaccination seem familiar, a scheduled part of the routine of parenting and childhood. Augmenting such efforts was, once again, the language of criminality, as in an 1802 article that suggested "parents and guardians" who failed to vaccinate their children were "accessary" to the children's deaths from smallpox.[181]

Conclusion

Scholars have located the rise of modern public health in the period starting at roughly the end of the first third of the nineteenth century. Explosive urbananization and the arrival of cholera in Britain during this period, among other factors, stimulated newly and increasingly centralized, interventionist government actions to manage the conduct, health, and numbers of British and colonial populations. For example, the first time the British government exercised any direct form of compulsion concerning inoculation came in 1840, when the National Vaccine Act banned it, while also making vaccination free for infants. In 1853, Parliament made vaccination compulsory for children under three months old. Following legislation in 1873, compulsory vaccination became nearly universal in Britain.

This chapter has argued, however, that the basic approaches and many of the strategies of these projects had already been developed by the end of the eighteenth century, primarily through efforts focused on the bodies of people who had little scope for denying consent: children, sailors and soldiers, and slaves. For a variety of mainly extra-governmental actors during the eighteenth century, inoculation became a potentially valuable tool for governing society through the management of populations. Attempts to deploy inoculation for this end were closely related to concerns about cultivating productive labor forces in both colonies and metropole. Antecedents of modern immunization policies emerged in the varyingly coercive

[181] *Gentleman's Magazine,* LXXII, 1005.

contexts of eighteenth-century colonial slavery and British institutions for the poor. Even compulsory inoculation emerged as a technique for managing populations in the eighteenth century, most evidently in the Atlantic slave system. Enslaved people became the first targets for this practice, one that was politically and socially impossible on a large scale in Britain during the eighteenth century.

Scholarly focus on inoculation and vaccination as medical practices is valuable, but it sometimes obscures the extent to which these were political issues even in the eighteenth century. They were contested tools of contested eighteenth- and early nineteenth-century projects for governing society. Yet, supporters of inoculation and vaccination across the British Atlantic during the long eighteenth century portrayed themselves as no more than the expert administrators of reason, regardless of their motivations, which shaded from the humanitarian to the profit-driven. Haygarth and his fellow partisans cast those who opposed, avoided, or resisted inoculation and vaccination as backward: obstacles to humanitarian progress and the rational ordering of society. Pro-inoculationists and -vaccinationists, especially physicians and surgeons, aimed to enforce more fully a particular approach to governing society, in which they, as experts, would take leading roles. In the 1790s, physician James Currie wrote that he was unsure if John Haygarth's proposals for general inoculation and government-backed regulations for containing smallpox would get the "general attention" they deserved. Nonetheless, he asserted, qualified people would approve of them, and the "principles will doubtless be called into action, if the happy period so confidently foretold should ever arrive, 'when the powerful shall be subjected to the wise.'"[182]

[182] Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain*, II, 453-54, quote on 54.

Chapter 5: Body and Mind: Commodification, Routine, and Violence in Managing Laboring Populations

In 1707, the famous doctor and scientist, Hans Sloane, later royal physician and President of the Royal Society and the London Royal College of Physicians, published the first volume of his account of a trip to the West Indies. The volume's introduction includes an anecdote concerning Emanuel, a black "footman," serving as a guide in Jamaica on a mission to capture a pirate crew and treasure. According to Sloane, however, Emanuel soon "pretended himself to be extraordinary sick...and dissembled himself in a great Agony." Sloane concluded that Emanuel's sickness was fraudulent, and determined to "frighten him out of it":

> I told the Standers by, that in such a desperate condition as this 'twas usual to apply a Frying-Pan with burning Coals to the crown of the Head...and that it was likewise an ordinary method to put Candles lighted to their Hands and Feet, that when the flame came to burn them they might be awaked.

Sloane states that he then left Emanuel alone to think while these items were retrieved. Emanuel quickly recovered his faculties, and, after being threatened with "correction" by Sloane, he satisfactorily performed his duties.[1]

Although Sloane does not actually commit physical violence here, his threat to do so is striking, coming from a doctor. Furthermore, he claims that "Servants, both Whites and Blacks," often fake infirmity, and that he prescribes them "harsh, yet innocent Remedies, as blistering, taking bitter Medicines, &c." to get rid of them.[2] Clearly, then, a certain degree of violence was nothing to be ashamed of, at least for one prominent medical professional. But this early eighteenth-century story about an event in the 1680s has significance beyond what it reveals about Sloane. It highlights a tension in British medical conceptions during the long eighteenth

[1] Sloane, *A Voyage to the Islands Madera, Barbados, Nieves, S. Christophers and Jamaica*, I, cxli-cxlii.

[2] *A Voyage to the Islands Madera, Barbados, Nieves, S. Christophers and Jamaica*, I, cxlii.

century of the human body as both something to cultivate and something to subject, through violence if necessary. As the story about Emanuel suggests, this tension is especially apparent in widespread views among elites of subaltern bodies as objects upon which authorities, including parish officials, planters, and increasingly doctors, had a right to act in the name of medical improvement, maintaining social and labor discipline, or both. This chapter argues that these proprietary claims received increasing expression in a range of strategies for commodifying, claiming, and managing the bodies of laboring people across the British Atlantic World during the eighteenth century. Contexts such as the slave trade played a major role in the development of these strategies, many of which would shape more centralized government approaches to managing populations in Britain during the nineteenth century. Examining these developments reveals a continuing focus even during the early to mid-nineteenth century on the body as a crucial target for disciplinary strategies; according to longstanding dominant conceptions, the mind and body were inextricably linked, and mutually constitutive. Strategies for managing populations throughout the 1700s and later targeted both the body and the mind.

In making these arguments, this chapter demonstrates how an array of apparently disparate practices together constituted a regime of power, even without central planning and organization. The chapter further argues that violence, subordination, and physical control were central to this regime and its authorities, including doctors. This is not to say that they succeeded, or even that they were unified in their actions. As we have seen in previous chapters, although coercive, persuasive, and disciplinary strategies for managing populations sometimes complemented one another, they often failed. Sometimes they hindered or contradicted one another, and the members of "the lower sort" whom they targeted often contested or refused them. Nonetheless, strategies for normalizing behaviors, inculcating habits, and rationalizing

administration were compatible with, and often tightly interwoven with, coercion, violence, and the cultivation of terror through the eighteenth century and into the nineteenth.[3]

Just another Brick in the Wall

By the early mid-eighteenth century, merchants, slave ship captains, plantation managers, charity officials and others had come to rely on quantification and enumeration as administrative tools for managing laboring populations. Indeed, practices of quantification helped constitute populations as entities upon which authorities could act. As Andrea Rusnock has written, these practices and their underlying assumptions of individuals as essentially interchangeable had potentially far-reaching social and political implications; "assigning numbers to people created anonymity as well as identity; it depersonalized, and dehumanized, and at the same time it leveled an unequal and hierarchical society."[4] Bills for a census in Britain failed in the 1750s in the face of a range of objections, including that a census would aggrandize government and violate individuals' right to privacy; the first British national census only occurred in 1801. In contrast, the colonial censuses employed since the second half of the seventeenth century continued without controversy.[5] Yet, even as leveling occurred in discussions of population in

[3] As Diana Paton argues in the context of a work on criminal punishment in late eighteenth- and nineteenth-century Jamaica, the "body and mind cannot be separated from each other…modern power works on both…violence and pain are fully part of modern power." Diana Paton, *No Bond but the Law: Punishment, Race, and Gender in Jamaican State Formation, 1780-1870* (Durham and London: Duke University Press, 2004), 12.

[4] Rusnock, *Vital Accounts*, 217. For quantification concerning health and medicine during the eighteenth century, see this work more generally, as well as Ulrich Tröhler, "Quantifying Experience and Beating Biases: A New Culture in Eighteenth-Century British Clinical Medicine," in *Body Counts: Medical Quantification in Historical and Sociological Perspective*, ed. Gérard Jorland, Annick Opinel, and George Weisz (Montreal: McGill-Queen's University Press, 2005); "The Introduction of Numerical Methods to Assess the Effects of Medical Interventions During the 18th Century: A Brief History," *Journal of the Royal Society of Medicine* 104, no. No. 11 (Nov. 2011).

[5] Robert V. Wells, *The Population of the British Colonies in America before 1776* (Princeton, NJ: Princeton University Press, 1975); Julian Hoppit, "Political Arithmetic in Eighteenth-Century England," *The Economic History Review* 49, no. 3 (Aug. 1996): esp. 526-27; Wilson, "Rethinking the Colonial State: Family, Gender, and Governmentality in Eighteenth-Century British Frontiers," 1298-99.

general, or of the population-wide effects of practices such as smallpox inoculation, the focus of quantification mitigated it. Authorities reduced members of disadvantaged groups to numbers more often, more thoroughly, and more concretely than they did members of the middle and upper ranks of British society during the eighteenth century. Quantification and enumeration operated as tools for subordinating and commodifying the bodies of laboring people across the eighteenth-century British Atlantic World.

Most clearly in the slave system, practices of quantification and enumeration early on became fundamental techniques for appropriating control over people's bodies, administrating them as units of production, and constituting enslaved populations. Merchants and slave ship captains used quantification to render people commensurable, representable as numbers added and subtracted in a ledger: major elements in the commodification of people's bodies.[6] Mid eighteenth-century slave ship captain (and later abolitionist) John Newton consistently referred to the slaves on his ships by numbers. For example, a ship's journal entry dated 9 January 1750 mentions the death of "a fine slave woman No. 11." Another entry dated a few months later similarly states "a woman dyd [*sic*] to night [*sic*] No 79."[7] Newton used numbers to identify individual slaves throughout voyages, as in recording the "seduc[tion]" by a sailor of a pregnant enslaved women whose "number [was] 83."[8] In contrast, Samuel Gamble, captain of the *Sandown* on a slaving voyage from Africa to Jamaica in 1793 and 1794, simply kept a running tally of slaves he purchased and brought aboard, without permanently assigning numbers to

[6] As Ian Baucom observes, one of the transatlantic slave trade's "violences" was its reduction of people to "a 'type': a type of person, or, terribly, not even that, a type of nonperson, a type of property, a type of commodity, a type of money." See Ian Baucom, *Specters of the Atlantic: Finance Capital, Slavery, and the Philosophy of History* (Durham: Duke University Press, 2005), 11.

[7] NMM, LOG/M/46, John Newton Manuscript Journal, 1750-1754, 9 January 1750/1, 21 April 1751, pp. 49, 73-74.

[8] Ibid., 31 Jan. 1753, p. 188.

individuals. For instance, on 26 December 1793, Gamble "Received on board 1 Boy 1 Woman slave No. 45."[9] As enslaved people died, Gamble kept track in like fashion, without names. In one entry in the ship's journal, he noted: "Departed this life 27 Feby 1 Man of a fever 1 Woman of D.o March 3d 1 Man of d.o 6th March 1 Man flux & 1 of a fever No. 6. Total on board 234."[10] Here, quantification elides even the deaths of individuals, with one number subsuming several people's deaths into a running total; the fates of individuals matter primarily for how they influence the numbers and fitness—and, hence, the profitability—of the cargo-population.

Although plantation accounts often include names for enslaved people, these accounts used quantification in the same ways apparent in slave ship logs, dehumanizing and commodifying people as part of a population. Numbers showing the "increase" and "decrease" of the enslaved population of a plantation often appear alongside similar accounts of livestock. Even when enslaved people themselves were not actually on the market, their importance for plantation authorities lay in how they contributed to or detracted from the population and its labor output. Certainly, a similar mindset was exhibited by deficiency laws, which reflected, among other things, the paranoia engendered among whites of living in a predominantly black society. Eighteenth-century writers offered estimates of the value of white women relative to white men in this context; according to one, considering two white women equivalent to one white man would be expedient for engineering Jamaica's population.[11] Still, in plantation and slave trade accounts, the dehumanization of enslaved people was an objective in its own right, over and above the depersonalization inherent in quantification as a technique for managing populations.

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[9] NMM, LOG/M/21, Log of the Slave Ship *Sandown*, 26 Dec. 1793.

[10] Ibid., 8 March 1794.

[11] Young, *Considerations Which May Tend to Promote the Settlement of Our New West-India Colonies*, 26.

In other words, despite its apparently bland rationality, quantification contributed to and helped organize the physical and psychic violence of slavery. The lists and accounts above constituted an archive, a "mechanism of enrollment" that aimed to durably structure knowledge, power relations, and approaches to governing in particular ways.[12] As one late eighteenth-century plantation owner wrote, urging careful adherence to a record-keeping system of five books for his plantation, "the Books of Estates are the only records by which future generations can inform themselves of the management of Plantations."[13] Quantification received some of its earliest broad applications as a modern technique for governing populations in the administration of a regime based on terror and commodifying people.

Numbering and commodifying people's bodies also came to figure in social and political authorities' efforts to manage the conduct and fitness of the urban laboring population in Britain, though in a much more limited fashion during the eighteenth century than in the slave system. From the early 1740s on, the Foundling Hospital used an extensive system of enumeration to organize children's care and to keep track of both them and the hospital's servants.[14] Hospital regulations stipulated that upon returning to the hospital from nursing for several years in the country, children receive clothes "proper for Labour." Each child's clothes were supposed to feature his or her assigned number "in some Manner so as to be always visible, that every Child

[12] Nikolas Rose and Peter Miller argue that "mechanisms of enrollment" "materialised in various more or less persistent forms" are crucial to establishing lasting, stable networks of power. See N. Rose and P. Miller, "Political Power Beyond the State: Problematics of Government," *The British Journal of Sociology* 61(2010): 281. As Ian Baucom notes, it is mainly through entries and valuations in ledgers and ships' logs that we know of the enslaved people in the transatlantic slave trade—and, as already noted, these records rendered them as a type. In discussing Royal Navy administrators' monetary valuations of sailors' and officers' injuries and body parts, he points to the records' conversion of history "into a calculable matter of credits and debts," a similar process to that at work in the slave trade records. See Baucom, *Specters of the Atlantic*, 7-8, 11-14, quote on 7.

[13] JA 4/23/1, Worthy Park Estate, Plantation Book, 9 April 1795.

[14] *An Account of the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 56, 59. The system also aimed to prevent anyone from tracing children's pre-charity origins. Protecting mothers and children from harassment supplied some, though probably not all, of the concern for anonymity.

may be easily known thereby."[15] This regulation was not to be wholly new to the children on returning to the hospital. Children first received their numbers upon admission to the hospital as infants.[16] The inspectors overseeing nurses had instructions "above all Things" to ensure "that the Numbers fastened to the Children be not taken off" for any reason.[17] These detailed and systematic regulations show the charity's operation through an extra-governmental bureaucracy using enumeration to incorporate individuals into a manageable population while maintaining the ability track individual children. In addition, however, these techniques seemingly would have accustomed the children to wearing an identification number their entire life.

This point suggests the overlap of benevolence and efforts at controlling behavior and bodies in charity and hospital establishments during the eighteenth century. As one historian has observed, philanthropic and economic impulses were "sometimes so tightly interwoven...as to be hardly distinguishable" in such institutions.[18] Charity authorities' proclaimed their aspirations to transform not just the health but also the character of individuals and, as a result, of the urban poor as a population.[19] Increasing Britain's strength, they emphasized, must involve "rectifying

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[15] *The Royal Charter, Establishing an Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 35-36; *Regulations for Managing the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 39.

[16] *The Royal Charter, Establishing an Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 32.

[17] *The Royal Charter, Establishing an Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 35; *An Account of the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 67.

[18] David Owen, *English Philanthropy, 1660-1960* (Belknap Press, 1965), 14, quoted in James Stephen Taylor, "Philanthropy and Empire: Jonas Hanway and the Infant Poor of London," *Eighteenth-Century Studies* 12, no. 3 (Spring 1979): 286.

[19] That said, it must be acknowledged that the Hospital accepted only about 18,000 children over the course of the eighteenth century, most of them during the Seven Years' War. Aside from the period of government funding and General Reception during the late 1750s, Foundling Hospital authorities tightly restricted the number of children they accepted into the hospital.

the well known want of Morals and Industry amongst the Poor."[20] The Foundling Hospital aimed to make poor children useful to the nation as well as to improve their lives: indeed, often to rescue them from abandonment. Success meant training children in economically useful skills and apprenticing or hiring them out to masters or finding them work as sailors. Foundling Hospital authorities acted in lieu of parents, exercising the right unilaterally to dispose children as laborers, discipline them, and appropriate their wages for the Hospital.[21] These regulations effectively claimed both parental and public property rights in poor children as laborers.

Practices of enumeration helped organize this system and instantiate its claims to the bodies of poor children. These practices simultaneously reflected and encouraged conceptions of the children in the aggregate, less as individuals than as a population with collective characteristics. According to the hospital's regulations, "the Numbers of the Children are to follow one another, in a perpetual Succession," although the numbers should not follow the order of the children's acceptance into the hospital. Enumeration not only worked as an administrative tool and way to maintain children and mothers' anonymity to the outside world. It also contributed to a process of commodifying children, representing them as more or less interchangeable as part of a group. If a child and his or her number somehow became separated, a charity inspector was to replace the number on the child and "seal [it] on them with [his] own Seal[], that this may be an Evidence, that the Children are not changed."[22] That said hospital authorities encouraged mothers to leave tokens—usually pieces of fabric—to be attached to children's hospital files, so that mothers could reclaim their children if their circumstances

[20] LMA, A/FH/A/01/004/001, "Concerning the Hospital," 29 February 1759, pp. 145-146.

[21] *The Royal Charter, Establishing an Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 13.

[22] *The Royal Charter, Establishing an Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 32, 35.

changed. Few did reunite, but that this personalized avenue for identification existed demonstrates that charity officials' commodification of children went only so far; they did not represent children as fully commensurate, and the hospital's custodianship was temporary.[23]

Dissection: Terror, Commodification, and Medical Progress

Authorities, increasingly including doctors, also claimed the bodies of members of "the lower sort" as medical and national resources in other ways in Britain and its colonies. Postmortem medical dissection had long imbricated medical research and judicial punishment by the eighteenth century. A late sixteenth-century law gave the London Royal College of Physicians the right to claim the bodies of up to four condemned felons each year "to dissect and use the same Bodies as they should think fit, for increasing the Knowledge of Physick, and the Experience thereof, for the Health of her [Queen Elizabeth's] Subjects."[24] The emphasis here lies on improving medical knowledge and practice for the public good, but there is no separating these ends from punishment. In early modern Britain, widespread views of dissection as a horrific, violent act of desecration inspired punitive use of dissection.[25] Through the first half of the eighteenth century, physicians acted not only as executors of this violence, but effectively also as judges; they decided whose bodies from among the executed would undergo dissection, apparently sometimes to the displeasure or passive resistance of the law officers charged with transferring the bodies.[26] Post-execution dissection in turn provoked popular anger and resistance

[23] See John Styles, *Threads of Feeling: The London Foundling Hospital's Textile Tokens, 1740-1770* ([London]: Foundling Museum, 2010).

[24] *An Act for the Better Viewing, Searching and Examining All Drugs, Medicines, Waters, Oyls, Compositions, Used or to Be Used for Medicines...* 5.

[25] For a detailed exploration of this point, see Ruth Richardson, *Death, Dissection, and the Destitute* (London and New York: Routledge & Kegan Paul, 1987), esp. 28-29.

[26] See *An Act for the Better Viewing, Searching and Examining All Drugs, Medicines, Waters, Oyls, Compositions, Used or to Be Used for Medicines...* 5. This act entered the books (1724) as 10 Geo. I c. 20. In a

that often focused on surgeons and physicians and aimed to prevent them from carrying out dissections.[27] During the late 1740s and 1750s, sailors stood out in particular for trying to seize the bodies of their fellow sailors who had been executed, forcing authorities to try to reach an accommodation with them to maintain order.[28] In one case in 1761, a group of "bargemen" reportedly went so far as to seize the body of a man executed in Oxford and, at a nearby church, "while some rung the bells, others opened the belly, filled it with unslack'd lime, and then buried the body."[29] The men, in other words, acted to keep the body intact by spoiling it for dissection.

Even as such opposition exposed tensions between the aims of punishment and medicine, it prompted reaffirmations of the close links between the two as simultaneously reliant upon and undermined by the violent breaking of cultural norms. A 1724 law lamented together the physicians' loss of "Executed Bodies for the Publick Uses" and the encouragement "Malefactors" supposedly derived from successful efforts to prevent dissection.[30] Physicians and surgeons throughout the eighteenth century defended dissection as crucial for medical learning: the "Publick Use[]" of the 1724 law. Physician Bernard Mandeville argued in a 1725 work that

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demonstration of the cultural association of surgeons with judicial violence by the early eighteenth century, the epilogue of the 1722 play *The Anatomist; or, the Sham-Doctor*, exhorted listeners: "Good People! save the Body of our Play, / From those who to dissect it yonder stay, / Like Surgeons on an Execution Day. / Ev'n e'er it dies they'll mawl [*sic*] it, I'm afraid; / And you'd think't hard, like me, in such a dread, / To be dissected e'er you're hang'd, and dead." Edward Ravenscroft, *The Anatomist; or, the Sham-Doctor: Written by Mr. Ravenscroft. With the Loves of Mars and Venus; a Play Set to Music: Written by Mr. Motteux.* (London, 1722), 7.

[27] Richardson, *Death, Dissection, and the Destitute*; Peter Linebaugh, "The Tyburn Riot against the Surgeons," in *Albion's Fatal Tree: Crime and Society in Eighteenth-Century England*, ed. Peter Linebaugh Douglas Hay, John G. Rule, E. P. Thompson, and Cal Winslow (Pantheon, 1975). For an example from late eighteenth-century New York, see Steven Robert Wilf, "Anatomy and Punishment in Late Eighteenth-Century New York," *Journal of Social History* 22, no. 3 (1989). A 1714 piece proposed hospitals at Oxford and Cambridge to improve medical training by allowing students to obtain bodies for dissection, despite "the Mob [being] so Mutinous to prevent their having one [a body]." See Bellers, *An Essay Towards the Improvement of Physick*, 14.

[28] Rogers, *Mayhem*, 57-59.

[29] *The Annual Register, or a View of the History, Politicks, and Literature, of the Year 1761*, (London: Printed for R. and J. Dodsley, 1762), 88-89.

[30] 10 Geo. I c. 20.

the backwardness "of the Vulgar" in attempting to prevent dissection of the bodies of criminals was "prejudicial to the Publick," because it blocked medical advances that might benefit society by improving people's health.[31] According to Mandeville, criminals were the people most fit for dissection, because they died "indebted to the Publick" and "ought not the injur'd Publick to have a Title to, and the Disposal of" their bodies "for the common Good."[32] In the context of widespread, intertwined anxieties about declining population, national security, labor productivity, and social order, such suggestions that criminals forfeited the use of their bodies (living or dead) to the public were common.[33] More broadly, the language of indebtedness to nation and society covered the poor in general, casting the poor as owing labor, deference to social authorities, and even proper behavior in terms of health and reproduction. Even if "to be dissected can never be a greater Scandal than being hanged," Mandeville presents dissection as taking something to discharge a debt. The line between extraordinary punishment and mechanism for producing useful knowledge from human bodies—in fact, for transmuting dead bodies into productive resources for society and the nation—appears so fine as almost to disappear.

Such idioms of commodification and subordination permeate physicians, surgeons, and other writers' configuration of dissection as a vital tool for rationalizing medical training and care and, by extension, governance. Medical dissection played an increasing role in conceptions

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[31] B. Mandeville, *An Enquiry into the Causes of the Frequent Executions at Tyburn: And a Proposal for Some Regulations Concerning Felons in Prison, and the Good Effects to Be Expected from Them. To Which Is Added, a Discourse on Transportation, and a Method to Render That Punishmment More Effectual* (London: J. Roberts, 1725), 26.

[32] *An Enquiry into the Causes of the Frequent Executions at Tyburn: And a Proposal for Some Regulations Concerning Felons in Prison, and the Good Effects to Be Expected from Them. To Which Is Added, a Discourse on Transportation, and a Method to Render That Punishmment More Effectual* (London: J. Roberts, 1725), 27-28.

[33] On this context, see Rogers, *Mayhem*, esp. Chapters 6-7. As Rogers has made clear, mid-century aims of cultivating a healthy laboring population and maintaining order were inextricable in a range of social reform efforts and punitive strategies including dissection.

of race and the demarcation of populations over the eighteenth and nineteenth centuries, but it also embodied assumptions of substantial commensurability between people's bodies.[34] Based on these notions, a variety of medical and social authorities cast dissection as a means for increasing the productive value of subaltern populations in both economic and social terms. In a 1714 piece, Quaker social commenter John Bellers advocated establishing hospitals for the poor in London, combining humanitarian appeals with arguments for promoting economic productivity, labor discipline, and social order. Further, he argued that in improving the lives and fitness of the poor and laboring population, hospitals would also provide experience for doctors who would treat the rich.[35] This argument recurred throughout the century in printed sources supporting the rapidly growing number of voluntary hospitals. Even death would become productive, for "when any one Dies in the *Hospital*, the Bodies should be opened, for the better Information of the *Phisitians* [*sic*]."[36] Bellers's proposals claimed the bodies of the poor for the nation and the affluent; "the Labour of the Poor" might have been "the Mines of the Rich," but the bodies of deceased poor people in this formulation also became mines of broadly generalizable medical knowledge and experience for the middling and elite's benefit.[37] This commodification of the bodies of the poor in the service of rationalizing the management of health became common through the illicit trade in exhumed bodies and practice at the many voluntary hospitals founded across Britain after the 1720s. Throughout the British Atlantic

[34] Schiebinger, "Human Experimentation in the Eighteenth Century; Andrew Curran, *The Anatomy of Blackness: Science & Slavery in an Age of Enlightenment* (Baltimore: Johns Hopkins University Press, 2011). Expanding use of dissection, then, fit with emerging approaches to managing health, especially in the military, that focused on populations, and that emphasized the broad generalizability of medicines and techniques. See Cook, "Practical Medicine and the British Armed Forces."

[35] Bellers, *An Essay Towards the Improvement of Physick*, 46, 50.

[36] *An Essay Towards the Improvement of Physick*, 7.

[37] *An Essay Towards the Improvement of Physick*, 33.

World, dissection along with medical experimentation constituted ways in which "devalued members of society were revalued by lending their bodies to medicine, an act seen as contributing to the greater 'public utility.'"[38] This situation continued in the nineteenth century. In a speech in 1829, William Cobbett denounced subordination through medical commodification of poor people's bodies: "Who is science for? Not for poor people...if it [dissection] be necessary for the purposes of science, let them have the bodies of the rich, for whose benefit science is cultivated."[39]

Far from fading, the explicitly and violently punitive aspects of this system received increasing emphasis during the eighteenth century, despite growing practical and humanitarian arguments for penal reform. The 1752 Murder Act greatly expanded the use of dissection as extraordinary punishment and deterrent, stipulating the hanging in chains or transfer of murderers' bodies to surgeons—who sought an ever-larger supply of bodies for studying and teaching anatomy—immediately after execution. Unlike earlier laws, however, the Murder Act made no mention of furthering medical knowledge for the common good. It passed amidst hysteria over an apparent spike in the number of murders and robberies in London, and property crimes in Britain more generally, which it sought to quell by drawing on the additional "terror" dissection inspired compared to "mere hanging," as a writer put it in the *London Magazine* the preceding year.[40] The Act reaffirmed the investment of "the respectable classes" in the spectacle of terror over mercy in both the criminal code and practice, an investment targeted at the lower

[38] Schiebinger, "Human Experimentation in the Eighteenth Century," 405.

[39] William Cobbett, *Eleven Lectures on the French and Belgian Revolutions and English Boroughmongering: Delivered in the Theatre of the Rotunda, Blackfriars Bridge, by William Cobbett. With a Portrait.* (London: W. Strange, 1830), 12-13.

[40] *The London Magazine* (1751), 83-84. The act, formally titled "An Act for better preventing the horrid Crime of Murder," was 25 Geo. II c. 37.

sort.[41] Over three decades later, William Wilberforce introduced a bill in Parliament to expand punitive dissection still further, subjecting to it other felons, including burglars. Wilberforce foregrounded the need to secure an adequate supply of bodies safe for medical education while also preventing grave robbing. The clear implication that dissection constituted punishment remained, however, demonstrating the compatibility of violence with the reformation of manners movement and efforts to improve the administration of society. His bill failed in the House of Lords after easily passing the Commons, and he abandoned the issue.[42] Nonetheless, overall, eighteenth-century legislation and practice further developed the longstanding recognition of connections between doctors, conceptions of medical progress, and the government's combined use of physical and psychic coercion.[43]

Yet the Murder Act failed to meet the medical community's demand for bodies, and the impulse to improve medical capabilities remained the basis for physicians and surgeons' justifications of body snatching: illicitly exhuming corpses for dissection. Surgeons acted as though they had a right to take and dissect the bodies of the deceased, particularly those of the

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[41] Rogers, *Mayhem*, 59-61.

[42] See Joanna Innes, "Parliament and the Shaping of Eighteenth-Century English Social Policy," *Transactions of the Royal Historical Society* 5th Series, Vol. 40(1990): 78. According to William Cobbett's *Parliamentary History*, Lord Loughborough (Chief Justice of Common Pleas) blocked the bill. Most of Loughborough's objections centered on maintaining the legal and legislative prerogatives of judges, but he also advanced other objections, including that the bill's "object was not lenity but pure cruelty," and that expanding the use of dissection to punish crimes other than murder would reduce its effectiveness and encourage "greater crimes." See *Parliamentary History*, vol. XXVI (London: T. C. Hansard), 197-99. Wilberforce's concerns about medical education and health apparently went unaddressed. For these, see *The Debates and Proceedings of the House of Commons, During the Third Session of the Sixteenth Parliament of Great-Britain*, vol. II (London: Printed for John Stockdale, 1786), 374-75. Another MP in 1796 attempted to introduce "a Bill for Anatomizing the Bodies of Executed Felons," which focused on deterring burglary and mentioned as a side benefit that it "would greatly prevent the necessity of stealing dead bodies for anatomical experiments." The motion to introduce the bill failed amidst claims that the bill would further level differences in sentences between severe and minor crimes. See *Evening Mail*, 14 March 1796.

[43] Richardson, *Death, Dissection, and the Destitute*, 36-7, 52-3, 75-6. For an example contemporaneous with the Murder Act, see William Hogarth's famous 1751 print, *The Reward of Cruelty*. The print shows a crowd of surgeons cutting into different parts of a human body, pulling the entrails onto the floor where a dog eats them. Presiding over the scene is a judge.

poor, who lacked the resources to prevent bodysnatching. In doing so, they achieved popular association with not just state violence through public punishment, but also with a predatory extra-governmental violation of the dead—an association they had already gained in Britain by the beginning of the eighteenth century. A broadsheet printed in Edinburgh in 1711 castigated those who dug up recently buried bodies, but it also had ample venom for the surgeons who "did give / Fourty shillings for each one [corpse] they receive: / And they their flesh and bones asunder part."[44] An abundance of visual materials from throughout the long eighteenth century reinforced the image of the physician or surgeon skulking about in the night to snatch bodies—and enjoying doing violence to those bodies. For example, the 1803 print *A Carcase* [*sic*] *Butcher* depicts several medical men appreciatively removing the intestines of a body still half wrapped in a burial shroud.[45]

White doctors also gained associations with violence and domination among enslaved people in the West Indies, partly because, in ways similar to those in Britain, medical practice and research there were bound up with the use of terror to govern the enslaved population. In a popular early nineteenth-century plantation medical guide, John Williamson reported that slaves refused to allow him to dissect the body of a deceased slave. Indeed, enslaved people in general supposedly could only rarely be persuaded to allow medical dissection.[46] Later in the same piece, Williamson further claimed "Negroes are averse to submit to any thing in the shape of surgical operation."[47] He put this resistance down to irrational distrust of white practitioners in favor of

[44] *An Account of the most Horrid and Unchristian Actions of the Grave Makers in Edinburgh, their Raising and Selling of the Dead, abhorred by Turks and Heathens, found out in this present Year 1711, in the month of May,* [1711].

[45] T. Williamson, *A Carcase Bucher* (1803).

[46] Williamson, *Medical and Miscellaneous Observations*, I, 82.

[47] *Medical and Miscellaneous Observations*, I, 97.

black ones. But the dual concern Williamson displays with medical practice and maintaining order suggests another explanation for this distrust and resistance, though he shows little sign of recognizing it. Echoing earlier accounts, such as that of merchant James Knight from the 1740s, he asserts that enslaved people resort to suicide because they think that they will return to Africa on dying, and that they think dismemberment will prevent this. Williamson then suggests decapitating the bodies of enslaved people who commit suicide, and displaying the disembodied heads as an example to other slaves, a suggestion that in fact reflected longstanding practice on plantations and slave ships. Knight, for example, claimed that dismembering or burning the bodies of slaves who committed suicide was the only means of deterrence that had "been found effectuall [*sic*]."[48] In fact, Richard Ligon had described an instance of this same strategy of terror in his mid-seventeenth-century account of Barbados.[49] These examples show how dismemberment could act as a means both for securing human bodies as property through intimidation and for transforming dead bodies into (or perpetuating their subjection as) property.

Postmortem medical dissection operated here in the same register as spectacular punishment through dismemberment, though the goals differed and even conflicted. Both enacted hierarchies of power by denying enslaved people control over both their bodies and their souls, Williamson's ostensibly "humane principle" in preventing suicide notwithstanding. In this, they operated similarly to dissection in Britain and the desecration of the corpses of people who committed suicide in early-modern Europe more generally.[50] All played on widespread though varying beliefs about close connections between body and soul, even after physical death.

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[48] *Medical and Miscellaneous Observations*, I, 93. BL Add MS 12416, f. 187.

[49] Richard Ligon, *A True and Exact History of the Island of Barbadoes* (London, 1673), 51.

[50] For changing attitudes toward suicide in early modern England, see Michael MacDonald and Terence R. Murphy, *Sleepless Souls: Suicide in Early Modern England* (Oxford and New York: Oxford University Press, 1991).

Knight's somewhat Mandevillian account connects the strategy for cultivating terror through dismemberment to enslaved people's rejection of postmortem medical dissection. The "uneasyness" [*sic*], according to Knight, arising from dissection was such that "the Surgeons sometimes have been oblidged [*sic*] to desist in order to pacefie [*sic*] them [slaves], although they were acquainted with the Motives and Reasons, and many Arguments made up of to Convince them of their absurd and Ridiculous Notions though to very little purpose."[51] This quotation suggests that by the 1740s surgeons in Jamaican commonly dissected—or attempted to dissect—the bodies of enslaved people. It also suggests the lack of consent involved and conceptions among slaves of medical dissection as an act of existential violence.

In spite of such perceptions, surgeons and physicians exploited the opportunities in colonies for making extensive use of involuntary medical dissection, focusing as in Britain on members of subaltern populations. Historian Mark Harrison has contrasted the relative uncommonness of dissection in Britain during the eighteenth century with the situation in Britain's colonies, especially in the East and West Indies, "in which post-mortem dissections were common and in which pathology and treatment were firmly grounded on morbid appearances." According to Harrison, colonial settings provided an "abundance of cadavers for dissection and the absence of any legal or ethical restrictions upon their use."[52] Texts on health, medicine, and race in the West Indies include frequent references to postmortem dissection in describing diseases and physical characteristics of enslaved people. Unlike in Knight's and Williamson's accounts, these are usually passing references, simply noting the findings of dissections without commenting on the circumstances of obtaining bodies. As numerous scholars

[51] BL, Add MS 12416, f. 187.

[52] Mark Harrison, "Racial Pathologies: Morbid Anatomy in British India, 1770-1850," in *The Social History of Health and Medicine in Colonial India* ed. Biswamoy Pati and Mark Harrison (New York: Routledge, 2009), 173-75.

have observed, in the late eighteenth- and nineteenth century United States, bodysnatching was crucial to medical dissection, and it mostly targeted the bodies of poor and enslaved people.[53]

Practice in the army and navy during the long eighteenth century, especially in colonies, afforded surgeons and physicians additional means for claiming subaltern bodies, further linking coercion, violence, and the rhetoric of rationalizing the administration of health.[54] Jacob Adolphus wrote from Jamaica to James McGrigor in 1819 that he had reminded the medical officers under his command about the importance of their reports, including "dissection reports of fatal cases." These, he reported telling the officers, when "performed with fidelity...cannot fail to be grateful to their own feelings and advantageous to the Public."[55] Adolphus would forward these reports to the Army Medical Board in London, pursuant to the board's instructions "to aid their endeavours for the promotion of Science." The bodies of soldiers, in the eyes of army medical authorities in Jamaica, Britain, and elsewhere, were essentially captive objects upon which doctors could and should act, without consent, if necessary, to create generalizable knowledge for managing populations. This view already had a history by the early nineteenth century, but military authorities during this period gave it increasingly centralized institutional support and organization, attempting to normalize practices such as dissection across colonies and metropole.

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[53] See, among others, David C. Humphrey, "Dissection and Discrimination: The Social Origins of Cadavers in America, 1760-1915," *Bulletin of the New York Academy of Medicine* 49, no. 9 (September 1973); Wilf, "Anatomy and Punishment in Late Eighteenth-Century New York; Ariela J. Gross, *Double Character: Slavery and Mastery in the Antebellum Southern Courtroom* (Princeton: Princeton University Press, 2000); Michael Sappol, *A Traffic of Dead Bodies: Anatomy and Embodied Social Identity in Nineteenth-Century America* (Princeton and Oxford: Princeton University Press, 2002); Marie Jenkins Schwartz, *Birthing a Slave: Motherhood and Medicine in the Antebellum South* (Cambridge, MA: Harvard University Press, 2006).

[54] According to Mark Harrison, colonial military contexts provided surgeons especially good opportunities for postmortem dissections. See Harrison, "Racial Pathologies: Morbid Anatomy in British India, 1770-1850," 175.

[55] NLJ, MS 2, Letterbook of Jacob Adolphus, vol. I, Adolphus to McGrigor, 7 March 1819.

As in the other contexts discussed above, however, there were practical limits to doctors' actions. Adolphus wrote that, in the face of a serious epidemic, he had "been compelled to limit" postmortem medical dissections. Not only were his officers too occupied caring for sick soldiers, "it also became impossible to conceal from the men, that such investigation took place, when they were employed upon every Subject, and it was manifest that the terror of such inspections had a serious influence on the minds of the patients." As a result, Adolphus temporarily ordered that only in unusual cases should doctors conduct postmortem dissections.[56] Adolphus's letter suggests that military authorities wanted to conceal the practice from soldiers. This denial of consent carries more than a hint of association with body snatching, as well as dissection in voluntary hospitals, in Britain. The army offered another way for doctors to obtain bodies with minimal trouble, but secrecy remained important to authorities. Dissection as a means for advancing science and medical practice ran into danger once soldiers could object to army doctors claiming, and attempting to render, their dead bodies as medical property.

In sum, dissection constituted simultaneously a tool for creating generalizable medical knowledge for managing the health of individuals and populations, and for subordinating laboring populations. This was especially true early on in colonies, but dissection became increasingly prevalent through the eighteenth and nineteenth centuries across colonial and metropolitan contexts, focusing on "the lower sort." The conviction, execution, and postmortem dissection of Lawrence Shirley, fourth Earl Ferrers, for murder in 1760 were exceptional, the visibility of the event providing authorities a chance to project the justice of the legal system.[57]

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[56] NLJ, MS 2, vol. I, Adolphus to McGrigor, 5 Aug. 1819.

[57] On eighteenth-century English law as an ideological system protecting the dominance of the ruling elite through the projection of "majesty, justice and mercy," see Douglas Hay, "Property, Authority and the Criminal Law," in *Albion's Fatal Tree: Crime and Society in Eighteenth-Century England*, ed. Douglas Hay, et al. (Pantheon Books, 1975). For a rival interpretation in what has become a contentious debate, see Peter King, *Crime, Justice, and Discretion in England, 1740-1820* (Oxford and New York: Oxford University Press, 2003).

Poor and disadvantaged people were also far more likely than the affluent to have their bodies exhumed or otherwise taken without consent and dissected; although affluent people feared bodysnatching, they had greater means than poor people did to prevent it. Authorities' inaction helped perpetuate this situation, making medical dissection an act of violence targeted on members of subaltern populations: a demonstration of the helplessness of the poor and the enslaved to escape the domination of the affluent, even after death. In a speech on a failed 1829 bill that would have institutionalized surgeons' ability to appropriate the bodies of poor people for dissection, William Cobbett portrayed the English poor as subject, like enslaved black people, to sale for their labor. However, Cobbett continued, the House of Commons had found a way "to inflict a greater degradation than this" on poor people in England by commodifying their dead bodies for science.[58] Out of ignorance, racism, or rhetorical strategy, Cobbett failed to note the extensive links between violent subordination and medical research forged through dissections of enslaved people in the colonies throughout the eighteenth and early nineteenth centuries.

Although revulsion to dissection spanned social distinctions, physicians and surgeons fit the resistances of the lower sort to dissection into narratives of backwardness and superstition. Surgeon William Lodge Kidd told the Royal Physical Society of Edinburgh in 1817 that he was unable to conduct postmortem examinations on the people who died in a typhus epidemic in Ireland. "Such a proposal there," he claimed in a discussion focusing on the allegedly self-destructive backwardness of the Irish poor, "would have been looked on with horror, and an attempt to do it by stealth would have been more than y/e life or at least than y/e Reputation of a

[58] Cobbett, *Eleven Lectures on the French and Belgian Revolutions* 12-13.

medical man was worth."[59] Likewise, in the 1790s prominent surgeon William Blizard had portrayed acceptance of dissection as a marker of rationality and civilization. On the other hand, he termed punitive dissection barbaric and ill conceived, and he sought to break the links between punishment and dissection in order to make postmortem dissection general. According to Blizard, punitive dissection "tends to discourage investigations of the most interesting nature, by derogating from the respect due to one of the most important branches of natural knowledge."[60] Nonetheless, physicians and surgeons continued to claim people's bodies through punitive dissection and body snatching, with an even more overt focus on the poor emerging in the 1830s.

Mind, Body, and Medical(ized) Violence

Such proprietary claims by doctors to the bodies of laboring people extended beyond those of the deceased, sometimes manifesting in coercion or medicalized violence as part of efforts to regularize doctors' authority and to enforce labor discipline. Doctors' use of deception, violence, and threats appears in sources such as Sloane's Jamaican account as an unexceptional element of doctors' jobs. William Buchan advocated honesty on the part of medical practitioners, but noted that they might sometimes "find it expedient to disguise a medicine" so that recalcitrant patients would take it.[61] For others, coercion seemed necessary to force laboring people to use medical services correctly. In the 1790s, military surgeon Robert Somerville claimed that in regiments with many new recruits, shirking combined with an aversion to "the

[59] HL, HM 47866, W.L. Kidd, "A concise Account of the Typhus Fever at present prevalent in Ireland, as it presented itself to the Author in one of the Towns in the North of that Island," for the Royal Physical Society of Edinburgh, 10 Oct. 1817, 32-33.

[60] William Blizard, *Suggestions for the Improvement of Hospitals, and Other Charitable Institutions* (London, 1796), 72-73.

[61] Buchan, *Domestic Medicine*, xxiv.

trouble of keeping themselves clean" to motivate soldiers' performance of disease. This threatened not just military discipline, but also health, because it led to overworking medical staff and "the good soldier" as well as overcrowding hospitals—itself a major health issue. Somerville argued for making the hospital "a place of punishment and confinement for such as only pretend sickness." In cases of uncertainty, Somerville's pamphlet suggests treating soldiers as if they are actually ill: enforcing a "low diet" and denying them visitors. Somerville's thinking reflected carceral strategies in the armed forces and eighteenth-century workhouses that would remain central in nineteenth-century charity and poor law reform. Dublin's "Corporation Instituted for the Relief of the Poor" in the 1770s lauded workhouse doctors' efforts at maximizing labor productivity and instilling discipline in the inmates through restricting food. Whenever someone faked disease, hunger "soon force[d] them to confess the Truth, and...exert their Strength and comply with the Terms of a better Maintenance." For the corporation, the challenge was to convince needy people to accept relief while making the house "a Terror and place of Punishment to the Sturdy and Idle." The high frequency of attempts at escape and gaining early discharges from the house signaled successful management.[62] Medical efforts to control bodies and to shape behavior intertwined with broader strategies for cultivating pliant laboring populations.[63]

Even into the nineteenth century, a period widely associated with a focusing of punitive and disciplinary strategies on the mind rather than the body, doctors and other authorities

[62] The Corporation Instituted for the Relief of the Poor, and for Punishing Vagabonds and Sturdy Beggars, in the County of the City of Dublin, , *Observations on the State and Condition of the Poor, under the Institution, for Their Relief, in the City of Dublin; Together with the State of the Fund, &C.* (Dublin: Printed by William Wilson, 1775), 6, 12-13. These ideas for managing workhouses were commonplace from an early point in the eighteenth century. See Slack, *From Reformation to Improvement*, 134-35.

[63] For white doctors' roles in enforcing labor discipline through investigating, discouraging, and medically punishing feigned disease among the enslaved population in nineteenth-century Virginia, see Fett, *Working Cures*, Ch. 7, esp. 189-91

inflicted medicalized violence on laboring people's bodies. Take, for example, the case of James Glover, a private in the British Army's 60th Regiment in the late 1820s. An anonymous report describes how Glover, after receiving the first six of a sentenced 200 lashes, underwent "violent contortions of the body which were supposed to be indicative of a paroxysm of Epilepsy." Glover's punishment was suspended, and he gained admission to the hospital. He eventually escaped from a ship transporting him to another hospital and was found ashore "greatly intoxicated, but evidently with the perfect use of his limbs." Unsurprisingly, military authorities now suspected he had faked his illness. In the hospital again, he suffered torture at the hands of the medical staff:

> He was repeatedly cupped, over the loins, and tartar emetic Ointment applied over the incisions, frequent Blisters to the adjacent parts, tartar emetic in Solution so as to excite nausea was exhibited...He was laid upon his face on a strong Barrack Table and held there by two powerful Men...A heated Spatula was then applied to his right leg, when he made such a powerful jirk [sic] as nearly to upset the two Men who were holding him down; a similar application to the left extremity was equally successful in exciting a manifestation of its long dormant power. He then begged to be relieved from the grasp of the two assistants declaring at the same time that he found he was much better able to use his limbs since the application of the Spatula.

The writer of this report commended the medical officer for his zeal, but admonished him for his tactics, not because they inflicted pain, but because they gave Glover too much attention, and other measures would have been more effective at breaking his will to persist in the fraud. Far from questioning the medical officer's right to torture Glover, the report blandly calls his actions "active Medical measures" that were merely unsuited to this particular case.[64]

[64] Wellcome Library [WL] MS. 6905/11, Anonymous memorandum on the feigning of illness in the army, detailing the case of Private James Glover of the 60th Regiment who feigned epilepsy in 1827, n.d.

These examples suggest how doctors' roles in maintaining order might promote amongst them a view of soldiers and other poor people's bodies as objects to be subjected through medicalized violence or coercion, but therapeutic goals could create similar results. In a 1791 work on maintaining soldiers' health in the West Indies, former army doctor John Bell relates an anecdote similar to that of Glover. In this case, however, Bell threatened to inflict severe pain on a soldier as a means not just of scaring him into taking his flogging, but also of curing him of his purported illness. Although Bell implies that the soldier faked illness to avoid punishment, he says that regardless of whether this was true, inspiring fear worked. He then cites the famous Dutch physician Herman Boerhaave on "the good effects of the excitement of fear" in treating certain diseases in certain types of people.[65] In one instance, Boerhaave reputedly "prevented a whole Ward full of Girls from falling into Epileptic Fits, by ordering the first affected to be cauterised [*sic*] &c."[66]

These endorsements of using fear as a curative derived from the dominant eighteenth-century medical conception that the mind and body strongly and mutually influenced one another. Bodily weakness or inactivity, for example, could create mental debility and bad character, and vice versa. As Buchan put it, "there is established a reciprocal influence betwixt the mental and corporeal parts...whatever disorders the one, likewise effects [*sic*] the other."[67] It became a trope of medical and other writing concerning the West Indies that "passions of the mind" could cause sudden physical diseases.[68] Army doctor Hector McLean identified

[65] Bell, *An Inquiry into the Causes Which Produce, and the Means of Preventing Diseases among British Officers, Soldiers, and Others in the West Indies*, 156.

[66] WL, MS. 1755, f. 29r.

[67] Buchan, *Domestic Medicine*, 139.

[68] For example, see Williams, *Essay on the Bilious, or Yellow Fever of Jamaica*, 54. Williams further noted that "the fear of dying, perhaps, kills more than the climate."

depression, or "dejection," as a major factor in European soldiers' susceptibility to disease in the West Indies; the region's reputation as a graveyard for Europeans made soldiers despair, causing them to fall prey to disease in great numbers.[69] Dejection, Bell claimed, could become hopelessness for sick soldiers, often leaving them beyond medical help.[70] Another army medical officer likewise observed from Jamaica in 1819 that it was needless to "say that fear acts powerfully on the system, and the skill and care of Medical Men can seldom sustain a subject upon whom this impression has become affixed." Dealing with the "mental distress" from yellow fever among newcomers to Jamaica constituted, according to the officer, an important and difficult medical task, although it is unclear precisely how he approached it.[71]

Works on plantation health and the West Indies more generally, as well as debates on slavery and the Atlantic slave trade, regularly featured these views. James Grainger, in his 1766 West Indian Georgic, *The Sugar-Cane*, referred to black people's "imaginary woes" as "no less deadly" than purely physical diseases.[72] While testifying as part of the Parliamentary Inquiry into the Slave Trade, in 1789, representatives for Jamaica's planters denounced obeah. According to them, and others, crafty African slaves cultivated "A Veil of Mystery" around obeah, and used it

[69] McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 12, 79-80. See also, among others, Lempriere, *Practical Observations*, I, 242-44; Gillespie, *Observations on the Diseases* 2-3, 48. McLean's language echoed Richard Mead's statement nearly eighty years earlier of the medical consensus that "Fear, Despair, and all Dejection of Spirits dispose the Body to receive Contagion, and give it a great Power, where it is received." See Mead, *A Short Discourse Concerning Pestilential Contagion, and the Methods to Be Used to Prevent It*, 34. According to Sir Gilbert Blane, "*indolence* is both a cause and a symptom of the scurvy." See Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy*, 61.

[70] Bell, *An Inquiry into the Causes Which Produce, and the Means of Preventing Diseases among British Officers, Soldiers, and Others in the West Indies*, 93.

[71] NLJ, MS 2, vol. I, Adolphus to McGrigor, 10 July 1819, 3 Sept. 1819.

[72] Grainger, *The Sugar-Cane: A Poem. In Four Books...* 135, line 368.

to awe, manipulate, and profit from other slaves.[73] From the perspective of planters and colonial officials, this establishment of a secretive hierarchy and belief system amongst slaves posed serious threats to order and security.[74] In addition, in countering abolitionist arguments that slaveowners' cruelty caused the failure of the enslaved population to increase naturally, the planter representatives pointed among other things to the fatal role of obeah. Supposedly, once a slave thought he or she suffered the effects of an obeah curse, there was nothing that European medicine could do to save his or her life. [75] One well-known plantation medical manual from this period advanced the same view and judged it the "duty of a medical man to" prevent depression among slaves, one source of which comprised "curses" by obeah practitioners.[76]

Such thinking about the body and the mind long continued to have currency within and beyond the West Indies, leading doctors to emphasize the importance of cultivating good character and spirits along with physically strengthening the body in maintaining overall health. In the late 1790s, for example, army surgeon Robert Jackson described health as "intimately connected with the improvement of the active powers of body, and the improvement of the heroic qualities of mind."[77] It was two decades later that Jacob Adolphus worried about the effects fear of dissection had on the health of soldiers in Jamaica. For John Bell, then, even if the soldier he threatened actually had a disease, his threat had a plausible medical rationale; "the

[73] "'Parliamentary Inquiry into the Treatment of Slaves in the West Indies,' House of Commons Sessional Papers (London, 1789)," 189, 93-4.

[74] For example, see Atwood, *The History of the Island of Dominica*, 269-72. For a discussion of this point, see Brown, *The Reaper's Garden*, 148-51.

[75] "'Parliamentary Inquiry into the Treatment of Slaves in the West Indies,' House of Commons Sessional Papers (London, 1789)," 194. For an earlier statement of the same point, see Hughes, *The Natural History of the Island of Barbados*, 15-16.

[76] Williamson, *Medical and Miscellaneous Observations*, I, 115, 327-28.

[77] Jackson, *An Outline of the History and Cure of Fever*, 341.

excitement of fear" beneficially acted on both the soldier's mind and body, restoring him to obedience and health.

Inculcating Habits of Health, Productivity, and Subordination

These views strongly informed medical authorities, sea captains, charity officials, and others as they generalized disciplinary strategies for managing the health and conduct of laboring populations**.** Institutional contexts of varying coerciveness served as the formative sites for strategies focusing simultaneously on body and mind as means of cultivating valuable, productive populations. Control over the bodies of laboring people was crucial to many of these strategies. One slave ship captain reported instituting compulsory exercise for slaves as early as the 1690s. This involved allowing the slaves on deck "and mak[ing] them jump and dance for an hour or two to our bag-pipes, harp, and fiddle, by which exercise to preserve them in health."[78] A popular 1729 guide for medicine in the transatlantic slave trade endorsed similar practices. The guide urged surgeons not to go on a slaving voyage without authority to take proper measures for preserving slaves' mental and physical fitness. Failing to treat enslaved people well and to "divert them often with Drum, Dancing, &c. in order to dissipate the sorrowfull [*sic*] Thoughts of quitting their own Native Country, Friends, and Relations," the guide argued, would destroy their health and, consequently, the surgeon's professional reputation.[79] Nearly sixty years later, Thomas Trotter claimed that his experience aboard the slave ship *Brookes* afforded "proof, that

[78] Phillips, *A Journal of a Voyage Made in the Hannibal of London*, 229-30. According to Philips, this strategy failed: "but notwithstanding all our endeavour, 'twas my hard fortune to have great sickness and mortality among them."

[79] T. Aubrey, *The Sea-Surgeon, or the Guinea Man's Vade Mecum. In Which Is Laid Down, the Method of Curing Such Diseases as Usually Happen Abroad, Especially on the Coast of Guinea; with the Best Way of Treating Negroes, Both in Health and in Sickness* (London: Printed for John Clarke, 1729), 133. A slave ship surgeon wrote along similar lines in 1791: " sh.d I ever sail out again to Africa, I will have my own instructions from a merch.t and have nothing to do with a Cap.t they are a set of over bearing men." TNA: PRO C 107/5, Box. No. 2, No. 25, William Dinely to James Rogers, 3 March 1791.

depressing passions of the mind have a powerful effect in the production of scurvy," pointing out that enslaved people suffered major psychological trauma in being forced into foreign slavery.[80] Trotter blamed the captain for the many deaths aboard the *Brookes*. He alleged that the captain dismissed Trotter's professional advice, including refusing "the custom of dancing them [the slaves] to the sound of a drum…till too late."[81] According to Trotter, enslaved Africans were "very fond" of being "danced," which should be an hour-long, twice daily routine aboard slave ships.[82]

For Trotter and others, this strategy applied to managing the health of mass laboring populations at sea more generally. Gilbert Blane urged officers to encourage "whatever produces jollity, contentment, and good humour" in order to manage health and order among sailors.[83] In a later piece on managing sailors' health, Trotter included among a range of other health practices "amusements…to keep the minds of the people in action." Trotter approvingly noted the ubiquity of musical instruments aboard naval vessels, with evening music joining "seamen and landmen…in the dance." Dancing and music here appear as means for constituting and managing a fit and productive population of sailors from a group of disparate individuals—a difference from the slave trade, whose captains and surgeons had a strong interest in encouraging disunity among enslaved people. Trotter elaborated the point about health:

> It has often occurred to me, that a band of music would be extremely useful in a ship, even as a preservative of health. In the last ship where I was surgeon, the Vengeance, Captain C. Thompson, and the Officers, purchased musical instruments; and five or six men, who were performers, made into a tolerable band. The people were regularly piped

[80] Trotter, *Observations on the Scurvy*, 37.

[81] *Observations on the Scurvy*, 31.

[82] *Observations on the Scurvy*, 105-06.

[83] Blane, *A Short Account of the Most Effectual Means of Preserving the Health of Seamen, Particularly in the Royal Navy*, 61.

> to dancing every evening: and I always thought it but justice to allow it a share of credit in the extinction of the typhoid contagion. To a set of human beings, confined for months together within the gloomy walls of a ship, the exhilarating powers of music could not fail to produce the most salutary effects…I would pronounce a physician strongly fettered in the craft of *technicals*, that excludes from his *Hygeine* [*sic*], the exciting influence of melodious notes, or the agile movements of the "*light fantastic tow.*"[84]

Other naval authorities took similar measures. For example, Lieutenant William Bligh made the sailors on the *Bounty* dance every evening as part of his efforts to keep the crew healthy, efforts that focused on cultivating happiness and habits of cleanliness and activity. This routine, however, provoked subversion and outright resistance, to which Bligh responded by withholding grog rations and issuing threats.[85] These examples show commonalities between strategies for managing health in the navy and in the slave trade. In addition, they clearly demonstrate the conception of mind and body as interconnected targets for efforts to manage the health of populations at sea.

This conception appears throughout eighteenth- and early nineteenth-century works on military and naval health, informing an approach of establishing institutional routines to inculcate linked habits of discipline, subordination, and health. An influential piece from the early 1760s expounded on the need for activities engaging both body and mind to keep soldiers healthy. Commanders, according to the author, needed to accustom soldiers "to much bodily

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[84] Trotter, *Medicina Nautica*, I, 226-27. Emphasis in original. Another naval surgeon in a 1786 book likewise emphasized the role of promoting cheerfulness in managing the health of sailors, pointing to music, dancing, and other entertainments as "the obvious means, which physic holds out for the *cure* of low spirits and melancholy." Charles Fletcher, *A Maritime State Considered, as to the Health of Seamen; with Effectual Means for Rendering the Situation of That Valuable Class of People More Comfortable. To Which Are Annexed, Some General Observations on the Diseases Incident to Seamen: And in Appendix of Additional Notes and Remarks in the Order of the Work* (Dublin: Printed for the Author by M. Mills, 1786), 175-92, quote on 89.

[85] Greg Dening, *Mr Bligh's Bad Language: Passion, Power and Theatre on the Bounty* (Cambridge: Cambridge University Press, 1992), 66, 71, 73.

exercise, and inur[e] them, by sobriety of manners" to "wholesome hardships."[86] In another important book from the 1760s, Sir John Pringle argued for regulations in camps to promote exercise, because soldiers were "naturally too indolent" to exercise on their own. This was a widespread view of the members of laboring populations in Britain and its colonies. Trotter's *Medicina Nautica* states several times that sailors must "be compelled" to behave in ways that minimize health threats. Promotional materials for the Marine Society exhorted naval and governmental authorities to save sailors "from their worst Enemies, *themselves;"* sailors "often stand in need of others to *think* for them."[87] Likewise, a range of social commentators including defenders of slavery asserted that members of the enslaved and urban poor populations required close regulation to compel activity and proper behavior.[88] In addition to exercise from drills and required duties, Pringle suggested offering sports prizes to encourage soldiers to develop habits of healthily moderate physical activity in their "diversions."[89] Surgeon William Blair's 1798 book, *The Soldier's Friend,* also emphasized the importance of molding behavior in efforts to manage soldiers' health. Since "idle and vicious habits are not to be cured by punishment and severity," Blair recommended that military authorities keep soldiers busy and engaged with exercise, "mechanical employments," music, and dancing. Such a routine would supposedly

[86] Brocklesby, *Oeconomical and Medical Observations*, 9-10, 16-17.

[87] *Letter from a Member of the Marine Society*, 33; Jonas Hanway, *Three Letters on the Subject of the Marine Society* (London, 1758), 3.

[88] For example, William Beckford argued Black people were "slaves by nature," and as such, they could not safely have much freedom to manage their own lives. Beckford, *A Descriptive Account of the Island of Jamaica*, II, 382. Commentators in Britain such as Stephen Hales pushed for taxes on alcohol—with limited success—to "put the *Poison* out of Reach" of the poor and laboring population, whose members supposedly could not control themselves. This was an overly permissive approach for at least one writer, who claimed it would allow "the common people" to "purchase a license" to ruin the state. See Hales, *A Friendly Admonition*, 14; *Observations on the Power of Climate over the Policy, Strength, and Manners, of Nations*, 132-33.

[89] Pringle, *Observations on the Diseases of the Army*, 140-41. He added, **"**some caution is necessary with regard to excess, because our common people, generally, observe no medium between their love of ease and pursuing the most violent exercise."

"amuse and civilize the soldiers; [] deter them from pernicious habits of laziness; and [act] as a means of preserving their health."[90] Robert Jackson likewise included dancing in a list of activities beneficial to physical health and character. Mirroring Trotter's language, he claimed, "dancing exhilirates [*sic*] the spirits, and by exhilirating [*sic*] the spirits, independent of its good effects exercising the limbs, it conduces to health."[91] Unfortunately, according to Blair and Jackson, despite the vital importance of encouraging "habits of daily exercise," British and other European military authorities devoted little attention to doing so, in contrast to their naval counterparts.[92]

As the above examples suggest, strategies for inculcating habits through routine simultaneously relied on control over laboring people's bodies and aimed at securing that control. Although presumably offering little in the way of mental stimulus, manually operating ventilation devices in hospitals and prisons and aboard ships fit disciplinary programs for accustoming members of subaltern populations to regular, regulated exercise. According to a mid-eighteenth-century article in the *Gentleman's Magazine*, "experience in several prisons and hospitals" had shown that men could easily operate small ventilators.[93] Stephen Hales also emphasized the physical ease of the labor of manually operating ventilators aboard ships; as experience had shown, crewmembers could divide the work.[94] Operating ventilators constituted

[90] Blair, *The Soldier's Friend*, 149-50. Similarly, naval surgeon Leonard Gillespie thought unoccupied sailors developed "habits of idleness and dissipation," which liquor use exacerbated. He noted that the resulting "Paroxysms of discontent" combined with other factors to "derange" sailors' health. See TNA: PRO ADM 101/102/4, 10 Dec. 1787.

[91] Jackson, *An Outline of the History and Cure of Fever*, 378.

[92] Blair, *The Soldier's Friend*, 61.

[93] *The Gentleman's Magazine, and Historical Chronicle,* Vol. XXII. (1752), 181.

[94] Hales, *A Description of Ventilators: Whereby Great Quantities of Fresh Air May with Ease Be Conveyed into Mines, Goals, Hospitals, Work-Houses and Ships, in Exchange for Their Noxious Air.... ,* 35-36. Although, as

yet another physical task in a line of work widely acknowledged to involve considerable activity and exertion. Further, it presented an option for commanders looking to keep sailors occupied as much as possible, and contributed to the further development of daily routines of health and labor in the already highly regimented lives of sailors. Prisons and ships became early locations of an industrial interface of machine and confined populations engaged in repetitive activities. There is a clear parallel here to eighteenth-century approaches to training soldiers to load and fire muskets through a detailed, almost mechanical series of prescribed movements. In both cases, authorities looked to achieve uniform, predictable results through disciplinary routines.

In aiming to create and preserve fitness, such disciplinary routines aimed also at shaping the broader characteristics of laboring populations in predictable and uniform ways. They looked to turn individuals into commensurate, calculable types as parts of populations: commodities for the nation. Robert Jackson offered a plan by which soldiers would be "formed" through "constant practices of discipline" of the types discussed above: inculcating daily practices of cleanliness, proper diet, and outdoor activity according to a closely regulated schedule. The aim, even in tropical environments, was to "cultivat[e] the habit ["of sustaining fatigues"], that it become engrafted upon nature." Accomplishing this, Jackson argued, comprised the only way of rendering soldiers mentally and physically fit for service.[95] Indeed, numerous commentators pointed out that this was the eventual result of military service and discipline, though officers supposedly had to maintain strict surveillance and control over soldiers, otherwise they would inevitably lapse into self-destructive behavior. The extended period necessary for forming soldiers provided justification for suggestions that military authorities send only older or veteran

observed in Chapter 3 above, the navy tested and installed ventilators aboard its ships from mid-century on, the actual use of the ventilators seems to have varied between ships.

[95] Jackson, *A Treatise on the Fevers of Jamaica*, 274; *An Outline of the History and Cure of Fever*, 372, 78, 83-84.

soldiers to the West Indies—as noted in Chapter 1 above, a controversial suggestion that intermittently translated into practice.[96] The primary founder of the Marine Society, merchant and philanthropist Jonas Hanway, thus bent his efforts toward sending poor children "to sea before their constitutions and turn of mind are formed." This would, he argued, improve the fitness and effectiveness of individuals, but in so doing, it would also further his population-focused agenda "of *breeding* up a race of seamen."[97] Hanway attempted to create a reliable and valuable national resource by cultivating a population with a known, useful set of characteristics.

As this example suggests, the languages and practices of forming people and populations through disciplinary routines targeting body and mind also had currency outside the armed forces, especially concerning children. For example, according to a representative formulation, proper education for children involved "forming the[ir] bodies…with powers of vigour, and activity, and of improving their hearts and understanding."[98] Eighteenth-century British parish and charity authorities attempted to inculcate habits of health, industry, and subordination among poor children in institutions.[99] In 1713, London's Governors for the Poor defended taking poor children into the workhouse rather than sending them to parish charity schools, because workhouse "Education" involved "constant Employment, and exact Discipline continually

[96] Lempriere, *Practical Observations*, I, 242-46; McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 39. An army officer in the 1810s optimistically suggested that following this suggestion would raise British Soldiers in the West Indies above other soldiers, making them self-reliant and hardy like "the ancient cohorts." NLJ, MS 284, Lt. Col. A.W. Light, ["Sketch for Improving the Condition of our Troops in the West Indies"], unpublished book manuscript [1816], 27. This, too, involved thinking of populations as commodities or resources. The goal of government and military authorities was to extract maximum value through correctly deploying populations.

[97] A merchant, *Motives for the Establishment of the Marine Society*, 4-6.

[98] Berchtold, *An Essay to Direct and Extend the Inquiries of Patriotic Travellers*, 33.

[99] On charities increasingly aiming at "policing" the poor, see Andrew, *Philanthropy and Police*. For early eighteenth-century attempts to mold the laboring population by making up for the perceived material and moral defects of poor parents through education in charity schools, see Jeremy Schmidt, "Charity and the Government of the Poor in the English Charity-School Movement, Circa 1700-1730," *Journal of British Studies* 49, no. 4 (October 2010).

observ'd." According to the governors, the workhouse usually had around 200 children as inmates.[100] Supporters and administrators of workhouses reiterated the goal of recouping operating expenses through inmates' labor, but often the primary aim was "to subject them [inmates] to discipline; and habituate them to good order and decency."[101] Even a cursory reading of charity, workhouse, and hospital regulations reveals the close regulation of time to which such institutions aspired for accomplishing these goals and rationalizing administration. Foundling Hospital regulations, for example, prescribed a regimented daily schedule for children. This schedule provided for regular outdoor exercise and for employing children "in such a Manner as may contribute to their Health, and induce a Habit of Activity, Hardiness and Labour."[102]

The Foundling Hospital's disciplinary regimen followed prevailing views in linking health and productivity to instilling gendered habits of physical and mental activity. Hospital regulations dictated that boys undertake physical labor outside "as may be most likely to fit them for Agriculture, or the Sea Service." This approach clearly focused on economic and military utility, but in doing so, it aimed to uphold and inculcate specific gender roles. According to the regulations, boys should generally not work at "manufactures," such labor "being likely to incline them to a Way of Life not intended for them."[103] Specific types of instruction, work, and

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[100] *An Account of the Corporation for the Poor of London; Shewing the Nature, Usefulness, and Management of the Work-House in Bishopsgate-Street. And That the Relieving, Educating, and Setting Poor Children to Work Therein, Is One Principal Design of Its Institution: And of Great Advantage to the Publick*, (London: Printed by Joseph Downing, 1713), 18.

[101] The Corporation Instituted for the Relief of the Poor, *Observations on the State and Condition of the Poor*, 11-12.

[102] *Regulations for Managing the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 49.

[103] *An Account of the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 69.

recreation combined here in efforts to create "Strength, Activity, and Hardiness," as well as an aversion to "base and effeminate" habits. Girls received less attention in the regulations. Authorities were always to keep them separate from the boys, and to employ them in "Household Business" and activities such as making clothes. Hospital authorities intended that the girls eventually become domestic servants or workers "in the Linen or other Manufactory."[104] Buchan's *Domestic Medicine* makes similar assertions concerning the proper employment and activities of boys and girls, and it relates them even more closely to health.[105] The linking of the performance of certain gender roles to individuals' physical health and to the fitness and size of the population reflected broader contemporary worries about urbanization and prefigured mid-nineteenth-century views concerning gender, health, and urban populations.[106]

Inculcating routines of submission to proper authority became central to strategies for forming bodies and minds and for managing health. These strategies encompassed institutional practices as well as printed treatises on parenting, medical self-help, and health that increasingly medicalized healing practices among the population.[107] Apothecary John Nelson's *Essay on the Government of Children,* for example, paints a frightening picture of sick children refusing medicine because parents have allowed them to flout authority. At this stage, parents can do nothing but "fruitlessly insist, where a Habit of Subjection should have already made a Word or a Look sufficient" to command obedience. The *Essay* thus asserts that "conquering Children" is

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[104] *An Account of the Hospital for the Maintenance and Education of Exposed and Deserted Young Children*, 70, 72.

[105] He does promote, however, physical activity as crucial for girls' short- and long-term health, as well. See Buchan, *Domestic Medicine*, 32-33.

[106] See Chapter 1.

[107] For the argument that such writing medicalized healing practices, see Roy Porter, "The People's Health in Georgian England," in *Popular Culture in England C. 1500-1850*, ed. Tim Harris (London: Macmillan, 1995), 134-35.

crucial to cultivating their health and character.[108] On the other hand, as with inoculation, Nelson and other medical writers aimed to establish themselves as the acknowledged experts on medical matters, and as a result to shape the practices of parents, military authorities, slave owners, and others in positions of authority. Nelson encouraged parents of sick children to quickly seek proper medical assistance—meaning physicians or apothecaries—and to eschew "the amazing Attachment to Nurses, and what they call good old Women." Such women, he claimed unironically and with evident indignance, tended to promote themselves by disparaging "physical People," stoking a dangerous, widespread, and irrational suspicion of qualified practitioners.[109] Writing to influence managers and owners of West Indian plantations, John Williamson similarly identified "the unaccountable confidence which negroes put in old women" as endangering health. Allowing these and other enslaved practitioners to treat the sick, he argued, was a "perversion of every rational exercise of the mind."[110] In other words, plantation managers should freeze out old women and other enslaved practitioners in favor of surgeons, since, like children, enslaved people would not. The "old woman" appears throughout eighteenth- and early ninteenth-century works on medicine and health as a figure of widespread, but misplaced trust.[111] Breaking her influence and building new habits of reliance on physicians, surgeons, and apothecaries certainly had economic and professionalizing motivations, but the

[108] James Nelson, *An Essay on the Government of Children, under Three General Heads, Viz. Health, Manners, and Education.*, Third ed. (London: Printed for R. and J. Dodsley, 1763), 22-23. Nelson's piece directs its advice primarily to the relatively affluent, though it advances claims for the broader applicability of many of its prescriptions.

[109] *An Essay on the Government of Children, under Three General Heads, Viz. Health, Manners, and Education.*, Third ed. (London: Printed for R. and J. Dodsley, 1763), 143-44.

[110] Williamson, *Medical and Miscellaneous Observations,* I, 58, 98 (quotes on 58).

[111] To take just one other example among many, see Buchan, *Domestic Medicine*, 190. In addition, the unsupervised, unqualified, and mercenary bad nurse became a stock figure in printed discourse as a killer of children and threat to the nation's population.

primary justification relied on invocations of societal progress and benefits to the health of individuals and, crucially, the population.

As with inoculation, then, such attempts to destroy the influence of lay medical practitioners constituted strategies for rationalizing health care under the authority of male doctors, and, consequently, for governing society. Regularizing health practices would supposedly provide a means for cultivating and improving the fitness of laboring populations. According to Buchan, diffusing medical knowledge through the populace was critical for eradicating poor people's "destructive prejudices" and "instil[ling] into their minds some just ideas of the importance of proper food, fresh air, cleanliness, and other pieces of regimen necessary in diseases." The key was to build confidence among the poor "that Medicine is a rational science" based on evidence.[112] But for Buchan and other medical and social commentators, doing this also depended to a great degree on achieving the same goal among privileged members of society and enlisting them as examples for the poor. This is the thrust of the examples in the preceding paragraph, which primarily targeted affluent readerships. In the same vein, the Scottish-trained English physician to the Sierra Leone colony, Thomas Winterbottom, compared African and enslaved West Indian practitioners to European lay practitioners. Although Winterbottom claimed "Superstition no where exerts her baneful influence more powerfully than in Africa," manipulative African frauds had European "itinerant brethren" who perpetrated "legerdemain tricks."[113] Winterbottom notes not just the fraudulent remedies and cynical manipulations perpetrated by African practitioners on the ignorantly credulous (including some Europeans who have lived in Africa some time), which he likens to

[112] *Domestic Medicine*, xiv, , xxiii, xxi-xxxii.

[113] Winterbottom, *An Account of the Native Africans*, I, 252-53.

"superstitious practice[s]" in Europe.[114] Both the European itinerate lay healer and the obeah practitioner appear as charismatic charlatans who captivate the ignorant masses with showy performances, a mixture of extravagant promises and intimidation, and professions of secret knowledge. Winterbottom's travel account thus identifies academic European medicine as a necessary tool and sign of colonizing progress, at "home" and overseas. Of course, the persistence of complaints about lay healers demonstrates the failure of physicians and surgeons to achieve medical hegemony during the long eighteenth century. Still, the period starting in the late seventeenth century saw rapidly growing reliance on physicians, surgeons, and especially apothecaries among the middling and upper ranks of British society.

In turn, parish medical relief for the poor increasingly regularized and made routine health care by surgeons and physicians, "creat[ing] expectations of medical normality and rationality which gradually squeezed medical magic to the sidelines."[115] The same applied to the armed forces. These were more than just incidental effects of parish and charity employment of surgeons; they were also important goals. William Black identified venereal disease hospitals along with smallpox inoculation as tools for rationalizing medical care and governing society, claiming they would "rescue numbers from the artifices of impostors, and from ruinous destruction."[116] Advocates of dispensaries and voluntary hospitals made similar claims, linking the wellbeing and productivity of the laboring population to the ascendance of the medical profession. Physician Edward Foster asserted that reforming the management and hierarchy of hospitals would turn "the people in general" away from "Quackery" toward "rational Practice." This, along with inculcating a sense of when to seek aid from physicians or surgeons, would

[114] Ibid., I, 258, 264-5, II, 2.

[115] Porter, "The People's Health in Georgian England," 134.

[116] Black, *Observations Medical and Political, on the Small-Pox*, 246.

augment the country's wealth by improving the health of the laboring population.[117] Even if social elites and doctors formed no "concerted alliance," workhouses, dispensaries, hospitals, and other charities effectively ratified the nascent medical profession's claims to expert authority.[118] For example, the directors of the St. Marylebone General Dispensary stipulated that the dispensary's physician "be either a Graduate of one of the Universities Oxford or Cambridge or a Member of the Colledge [*sic*] of Physicians of London." Like qualifications applied to the positions of surgeon and accoucheur. After a debate in 1790, a resolution passed that anyone elected physician who lacked the necessary credentials must quickly gain them or lose the position.[119] This is not to say that charities, hospitals, and parish authorities excluded other practitioners, but they increasingly attempted to place practitioners such as midwives under the supervision of surgeons and physicians.[120]

Ineffective Medicine and Authority

Doctors' services plainly commanded significant and increasing demand during the long eighteenth century, and civic engagement and free care for the poor created "a rival perception

[117] Foster, *An Essay on Hospitals*, 36.

[118] This is not to say that the mostly lay governors of such institutions ceded administrative control to physicians, surgeons, and apothecaries; nor did these groups yet constitute a unified medical profession. The claims to exclusive medical expertise and, consequently, the rightful authority to manage hospitals that members of these groups increasingly articulated in the early nineteenth century constituted a major part of the creation of the medical profession. These claims were clearly political as well as professional, not only pushing for a new locus of medical and social authority (for another example of which, see the discussion of inoculation and vaccination in Chapter 4 above) but also reflecting changing thinking about the proper roles of charity in governing. For this argument, see Michael Brown, "Medicine, Reform and the 'End' of Charity in Early Nineteenth-Century England," *English Historical Review* CXXIV, no. 511 (2009). For the argument that the conditions of the eighteenth-century medical marketplace "precluded" a "concerted alliance" to suppress lay healing, see Porter, "The People's Health in Georgian England," 127.

[119] Westminster City Archives, M: Acc 403/38, St. Marylebone General Dispensary, Directors' Monthly Board Meetings Book, 1785-1821, 6 Nov. 1785, 1 Dec. 1790, 3 Dec. 1790, pp. 14-15, 83-85.

[120] For example, see Ibid., 2 Feb. 1814; LMA, A/SD/2, Surrey Dispensary, Minutes, 18 March 1778, pp. 39-40, A/SD/003, Surrey Dispensary, Minute Book of the Governing Committee, c. 1784-1795, 17 March 1790, pp. 144-5.

that the medical profession was 'caring' and civic-minded."[121] Nonetheless, efforts to inculcate as routine treatment from doctors to the exclusion of lay practitioners had to overcome distrust arising not only from doctors' implication in violence and exploitation but also from their apparent ineffectiveness. A rapidly growing print culture increasingly rendered secrecy a major distinction between legitimate and illegitimate practitioners in Britain.[122] Unfortunately, according to Buchan, the distinction remained "too fine for the general eye." In a statement echoing his claims about doctors' attempted monopolization of inoculation, Buchan claimed that doctors themselves blurred distinctions by hoarding knowledge and keeping secrets, making themselves untrustworthy.[123] Of course, this statement justified a publication that was a commercial venture, but, as noted above, it was also an attempt to shape people's behavior and build trust in doctors. In the early nineteenth century, William Lodge Kidd identified the meddling of "ignorant" laypeople as a significant medical problem in Ireland. He claimed some success if caregivers refused such meddling and "implicitly followed" his instructions, but it was "incredible…with what pain & Perseverance…Specificks are taken, provided always that they be not recommended by a Medical Man."[124] Hector McLean found it unsurprising that soldiers disliked hospitals, because "they see very few return, who once enter their gates." That said he

[121] Penelope J. Corfield, "From Poison Peddlers to Civic Worthies: The Reputation of the Apothecaries in Georgian England," *Social History of Medicine* 22, no. 1 (2009): 9.

[122] For the argument that the expanding medical press "subtly shifted what counted as "good" knowledge, who made it, and where it could be found" toward print, see Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth-Century London*, 10.

[123] Buchan, *Domestic Medicine*, xxiv-xxv.

[124] HL, HM 47866, Kidd, "A concise Account of the Typhus Fever," p. 15.

blamed this outcome and the distrust it inspired on soldiers concealing diseases until they became difficult or impossible to treat.[125]

Conditions in the West Indies threw European doctors' ineffectiveness into high relief and imbued it with particular economic and socio-political significance. According to one mid-century work, treating black slaves' diseases effectively "require[s] a consummate knowledge of symptoms and disorders," but planters rely on inexperienced practitioners or "ignorant assumer[s]" to take care of themselves and their slaves, with fatal results.[126] "Our American practitioners" in general, the author claims, misunderstand the nature of tropical diseases and often employ "pernicious Methods of practice."[127] Charles Leslie, in his *New and Exact Account of Jamaica,* also cast aspersions on Jamaica's medical practitioners. He acknowledged the skill of several notable doctors who had practiced in Jamaica, but claimed, "the Island is quite crowded with raw unexperienced Youths." Leslie differentiated between the accomplished few, who practiced in towns, and the undistinguished majority, who treated enslaved people on plantations.[128] In 1778, the Duchess of Chandos's attorney in Jamaica made similar claims in explaining the decrease of the enslaved population on Chandos's estate. He blamed the situation in part on being "obliged to employ young unexperienced surgeons," the "clever and industrious" of who amass too much business to cover "or go into the Towns, where the business is more profitable and less fatiguing." The doctor he had contracted, he wrote, had only

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[125] McLean, *An Enquiry into the Nature, and Causes of the Great Mortality among the Troops at St. Domingo*, 128-29.

[126] Patrick Browne, *The Civil and Natural History of Jamaica* (London, 1769), 25-26.

[127] *The Civil and Natural History of Jamaica* (London, 1769), vii.

[128] Leslie, *A New and Exact Account of Jamaica, Wherein the Antient and Present State of That Colony, Its Importance to Great Britain, Laws, Trade, Manners and Religion, Together with the Most Remarkable and Curious Animals, Plants, Trees, &C. Are Described: With a Particular Account of the Sacrifices, Libations, &C. At This Day in Use among the Negroes*, 52.

irregularly attended to his duties.[129] For planters and overseers, the effectiveness or ineffectiveness of medical care on plantations, as in the slave trade, bore more and more on the value of the enslaved population as a productive asset.

For many observers the failures of white medical practitioners to manage the health of the enslaved population in the West Indies contrasted with the effectiveness of black practitioners, at least in treating certain diseases. White observers frequently noted that enslaved black people in the West Indies often avoided treatment by white doctors. James Knight, writing in the mid-eighteenth century, observed that enslaved people had "little Confidence in our Phisitians [*sic*] and Surgeons; for though every Plantation has one that constantly attends them every day, Yet it is with great difficulty that many of the Negros are prevailed upon to take their Medicines." Knight explained this distrust of white practitioners by pointing to the success of black ones, as well as black practitioners' only rarely prescribing "any thing to be taken inwardly."[130] Edward Long suggested that planters who sent their sons to Britain for medical education should ensure that they also devote considerable attention to studying botany. That this had not usually occurred, Long argued, had made for an embarrassing contrast between the medical skills of whites and blacks:

> for what can be more reproachful than to have it said, and with truth, that many of the Negroes are well acquainted with the healing virtues of several herbs and plants, which a regular physician tramples under foot, with no other ideas of them, than that they are no part of his *materia medica*, nor any better than useless weeds."[131]

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[129] HL, Stowe Collection, Brydges Correspondence, Jamaican Estates—STB Box 25, Edward East to the Duchess of Chandos, 23 Sept. 1778. That said, less than ten years later, East's successor wrote of his (and East's) satisfaction with the medical services on the plantation of a Dr. Spaulding. STB Box 26, Robert Hibbert to the Duke of Chandos, 24 May 1787. In 1786, however, the overseer had described the doctor as incompetent. STB Box 27, J. Concanon to Duke of Chandos, 2 Jan. 1786.

[130] BL Add MS 12416, [Knight], "The Natural, Morall and Political History of Jamaica," vol. 2, ff. 185v-186r.

[131] Long, *The History of Jamaica*, II, 136-37.

Given the close ties the slave system formed between white doctors and colonial and plantation structures of authority—most plantations had a white surgeon, and colonial assemblies outlawed slaves from prescribing medicines without their owner's consent—this situation was threatening. It exemplified the failure of the plantocratic regime to deal with conditions in Jamaica, undercutting its authority and ideology of white superiority by demonstrating its reliance on the medical knowledge and skills of enslaved blacks.[132]

The problem of managing yaws provides a clear demonstration of perceptions of a troubling contrast between the effectiveness of white and black medical practitioners. White commentators identified yaws as not just a tropical disease, but as a disease of the black population.[133] Knight described yaws as the worst of the diseases of black people, and claimed that it was rare in the white population, "though some of the Poorer sort who Converse, and Cohabit with them [black people], are sometimes troubled with it."[134] The famous surgeon and opponent of smallpox vaccination, Benjamin Moseley, wrote that although yaws affected black people "without any communication, society, or contact," it infected white people only "by inoculation, and by accidental contact." There had, he noted, "been several shocking instances of this sort."[135] Another early nineteenth-century medical writer reported with horror a case in

[132] Plantation inventories from the eighteenth and nineteenth centuries routinely list enslaved doctors and nurses. For example, see JA 4/23/1 (Worthy Park Estate, Plantation Book, 1791-1811), "A List of Negroes on Worthy Park Estate for the year 1794;" HL, Stowe Collection, West Indies Box 1, A General List of Negroes on Hope Estate taken the 1st day of January 1813, List of Slaves on Hope Estate for 1825; West Indies Box 3, A List of Negroes on Hope Plantation in St. Andrews taken the 1st January 1788.

[133] Moseley, *A Treatise on Sugar*, 166; Grainger, *The Sugar-Cane: A Poem. In Four Books...* 130, line 264. Edward Long asserted that a third of slaves died from yaws within three years of arriving in Jamaica. Long, *The History of Jamaica*, II, 434.

[134] BL Add MS 12416, [James Knight, "The Natural, Morall and Political History of Jamaica: and the Territories depending; from the Earliest account of time to the year 1742," vol. 2], ff. 185r-185v.

[135] Benjamin Moseley, *A Treatise on Sugar* (London: Printed for G.G. and J. Robinson, 1799), 166.

which a young white woman contracted yaws. After trying a remedy "that a certain negro made" on the advice of her neighbors, according to the writer, she died. For the writer, this story demonstrated the dangers of the tendency of "some gentlemen in Jamaica…to be deluded by the promises of rapid care under the treatment of ignorant persons."[136]

Yet, as even this cautionary tale implies, white doctors seemed hapless when it came to treating yaws, turning whites and blacks toward Afro-Caribbean treatments. Edward Long blamed high mortality from yaws on "a mistaken method of treating it, and the too eager desire of their [slaves'] owners, or an affectation of extraordinary skill in their doctors, to make a speedy cure of it by some mercurial *nostrum.*"[137] In 1832, plantation manager Richard Barrett echoed the oft-expressed view that the practice of simply isolating people suffering from yaws was a "disgrace to our doctors." Barrett reported using his own recipe, whose contents and provenance went unstated, to "eradicate[] this painful & disgusting complaint"—the type of claim Long had earlier derided.[138] Knight wrote that curing yaws usually took at least two years and that white practitioners' efforts usually came to nothing in the long term. Further, "very few but their own [black people's] Doctors, for such they have amongst them, have the Art of making a perfect cure."[139] Mid-eighteenth-century physician William Hillary likewise noted the success of "Negro Doctors" in Africa and the West Indies in curing yaws, though they kept their cure "as

[136] John Williamson, *Medical and Miscellaneous Observations Relative to the West India Islands*, 2 vols., vol. II (Edinburgh: Printed by Alex. Smellie, 1817), 155-56.

[137] Long, *The History of Jamaica*, II, 434.

[138] HL, Stowe Collection: Grenville Correspondence—STG Box 433, Richard Barrett to the Duke of Buckingham and Chandos, 25 May 1832.

[139] BL Add MS 12416, James Knight, "The Natural, Morall and Political History of Jamaica: and the Territories depending; from the Earliest account of time to the year 1742," vol. 2, f. 185v.

a Secret from the white People, but preserve among themselves by Tradition."[140] In contrast, white slave ship surgeons received scathing criticism for practices that temporarily disguised symptoms but ultimately worsened the disease.[141] The list of treatments in an 1803 handbook by "A Professional Planter" included one the author understood "negro-doctors" used "with great effect, even in cases that had baffled the art of the regular practitioner."[142]

This apparent difference in medical skill and the concern for secrecy Hillary notes amongst black practitioners highlight medicine as a site for contesting power relations.[143] Aims of commerce and medical improvement stimulated European and colonial interest in Afro-Caribbean medical practices. Yet so did white planters and doctors' evident failure to manage the health of enslaved populations in the West Indies. Knight connects his view that white physicians should attempt to learn the secrets of black doctors not only to black doctors' medical acumen but also to their greater trust from slaves. The implication is that, along with becoming more useful to "mankind" by expanding their medical knowledge, white doctors would gain

[140] William Hillary, *Observations on the Changes of the Air and the Concomitant Epidemical Diseases, in the Island of Barbaodes. To Which Is Added a Treatise on the Putrid Bilious Fever, Commonly Called the Yellow Fever; and Such Other Diseases as Are Indigenous or Endemial, in the West India Islands, or in the Torrid Zone*, 2nd ed. (London: L. Hawes, W. Clarke, and R. Collins, 1766), 341.

[141] *Observations on the Changes of the Air and the Concomitant Epidemical Diseases, in the Island of Barbaodes. To Which Is Added a Treatise on the Putrid Bilious Fever, Commonly Called the Yellow Fever; and Such Other Diseases as Are Indigenous or Endemial, in the West India Islands, or in the Torrid Zone*, 2nd ed. (London: L. Hawes, W. Clarke, and R. Collins, 1766), 344-45; A Physician in the West Indies [James Grainger], *An Essay on the More Common West-India Diseases; and the Remedies Which That Country Itself Produces. To Which Are Added, Some Hints on the Management, &C. Of Negroes* (London: Printed for T. Becket and P.A. De Hondt, 1764), 56.

[142] A Professional Planter [David Collins], *Practical Rules for the Management and Medical Treatment of Negro Slaves, in the Sugar Colonies*, 417. More generally, Leonard Gillespie observed "domestic medicine is very far advanced among" West Indian slaves, who are pretty well acquainted with the virtues of the efficacious simples with which the country abounds, and with the treatment of the diseases most frequent, in which they seem to be at least as successful as the European practitioners." See Gillespie, *Observations on the Diseases* 30.

[143] On this point, see Fett, *Working Cures*. See also Todd L. Savitt, *Medicine and Slavery: The Diseases and Health Care of Blacks in Antebellum Virginia* (Urbana: University of Illinois Press, 1978), 150.

trust.[144] Knight says nothing about supplanting black with white doctors, but such an agenda would clearly align with legislation in Jamaica and the efforts in Britain during the eighteenth century described above. Certainly, whites could not count on black doctors to cooperate. Despite some instances in which white doctors managed to get information from black doctors, Knight had the same observation that Hillary later did: "the Nigro [*sic*] Doctors very seldome [*sic*] discover their Nostrums or method of practice."[145] This point about preserving secrecy—and the need for white people to break it down—recurs in sources from throughout the long eighteenth century. Black practitioners appear here both as necessary to the slave system and as potential agents of resistance to it, capable of withholding knowledge that the plantocracy looked to use in maximizing the labor value of the enslaved population.

Gaining this knowledge, then, involved struggles for authority in the contexts of both Jamaican colonial society and of efforts across the British Atlantic to rationalize medicine as a tool for governing populations. European doctors and naturalists worked to appropriate indigenous and enslaved people's medical knowledge by dissociating it from the contexts of the knowledge and belief systems from which it arose.[146] Europeans and white colonists portrayed themselves as gathering rude knowledge, incorporating it into civilized, advanced European systems, and using it rationally—neutralizing its ideological threat. In Britain, Edward Jenner's late eighteenth-century publications on smallpox vaccination, which developed first among laypeople, fit this narrative. At the beginning of the century, Hans Sloane reported that his

[144] BL Add MS 12416, ff. 185-6.

[145] Ibid.

[146] Harold J. Cook, "Global Encounters and Local Knowledge in the East Indies: Jacobus Bontius Learns the Facts of Nature," in *Colonial Botany: Science, Commerce, and Politics in the Early Modern World*, ed. Londa Schiebinger and Claudia Swan (Philadelphia: University of Pennsylvania Press, 2005), 100-18. Daniela Bleichmar, "Books, Bodies, and Fields: Sixteenth-Century Transatlantic Encounters with New World *Materia Medica,"* in ibid., 83-99.

investigations in the West Indies disproved the supposed prowess of "*Indian* and Black Doctors," aside from some basic herbal knowledge. He further claimed, "their ignorance of Anatomy, Diseases, Method, &c." made even this knowledge "not only useless, but even sometimes hurtful."[147] Jamaica physician Thomas Dancer attributed to black people knowledge of "a very useful medicine," the only remedy he "could learn of" for snakebites. Nonetheless, he stated that the extent of the medicine's usefulness was unknowable, as "we have no other evidences than the testimony of the Indians and negroes, who, in their opinions concerning the medicinal efficacy of plants, &c. are chiefly guided by superstition."[148] Marginalizing popular medicine and knowledge systems played an integral role in British and colonial medical practitioners and writers' attempts to draw upon them.

Relying on enslaved healers, however, also created direct threats to the health of white people and the productivity of enslaved populations throughout the West Indies. Fear of poisoning was omnipresent among whites in the West Indies.[149] Black people's knowledge of poisons seemed to follow logically from their skill at using herbs medicinally. Thomas Thistlewood employed slaves for medicines and operations to maintain his own health, in addition to that of his slaves.[150] In a diary entry from 1771, however, he recorded being ill and taking a "Beverage" that a slave named Jimmy made for him. From the taste, Thistlewood

[147] Sloane, *A Voyage to the Islands Madera, Barbados, Nieves, S. Christophers and Jamaica*, I, cxli.

[148] Thomas Dancer, *A Brief History of the Late Expedition against Fort San Juan, So Far as It Relates to the Diseases of the Troops; Together with Some Observations on Climate, Infection and Contagion; and Several of the Endemial Complaints of the West-Indies* (Kingston, Jamaica, 1781), 14-15.

[149] See, among many others, Diana Paton, "Witchcraft, Poison, Law, and Atlantic Slavery," *The William and Mary Quarterly* 69, no. 2 (2012); Weaver, *Medical Revolutionaries: The Enslaved Healers of Eighteenth-Century Saint Domingue*, esp. Ch. 4.

[150] For example, see Beineicke Library, Yale University, OSB MSS 176, Box 2, 29 Feb. 1756, 27 April 1756, pp. 35, 76.

suspected Jimmy had poisoned him, as Jimmy "[was] very impudent, lazy, sly, and sullen."[151] According to a writer near the end of the eighteenth century, obeah practitioners exploited their influence and knowledge of poisonous herbs to trick other enslaved people into poisoning whites in the West Indies.[152] The claim that obeah practitioners themselves poisoned people appears repeatedly in slave court records from Jamaica. For white colonial authorities and commentators, then, slaves' refusal to share herbal and medical knowledge denied authorities a tool for managing the enslaved population and perpetuated the threats of poisoning and even insurrection.

These threats combined with broader aims of controlling bodies and regularizing structures of authority in planters' and the Jamaican colonial government's justifications of violence against obeah practitioners. In 1760, following Jamaica's largest slave rebellion of the eighteenth century, the colonial assembly made practicing obeah a capital crime, due to the identification of some of the rebellion's leaders as obeah practitioners. According to a paper submitted as evidence to Parliament, colonial authorities tortured the captive obeah men. To do so, they employed the most sophisticated knowledge and tools of Enlightenment scientific progress: "On the other Obeah-men, various Experiments were made with Electrical Machines and Magic Lanthorns, which produced very little Effect; except on one who, after receiving many severe Shocks, acknowledged his Master's Obeah exceeded his own." The foremost motives for this were clearly to discredit obeah practitioners as leaders and to demonstrate the consequences of rebelling against the plantocratic regime. Nevertheless, intertwined with and overlapping these motives were concerns about maintaining slaves' health and fitness to work.

[151] OSB MSS 176, Box 4, 15 Nov. 1771, p. 205.

[152] Atwood, *The History of the Island of Dominica*, 269-72.

The punishment asserted in multiple registers the powers of European science and medicine over Afro-Caribbean knowledge and belief systems. Although it is unclear whether doctors participated in the torture, colonial authorities used medicalized violence on the bodies of enslaved people in pursuit of their goals. These goals included advancing the status of European medicine and science in order to overcome the barriers obeah seemed to present to progress in terms of social order, health, and labor productivity.

Less spectacular everyday strategies for achieving this end also continued to involve physical violence and coercion well into the nineteenth century. A note in James Grainger's *Sugar-Cane* takes an ambiguous position on obeah, claiming "as the negro-magicians can do mischief, so they can also do good on a plantation, provided they are kept by the white people in proper subordination."[153] It is unclear to what extent other planters agreed or used this suggestion for managing the enslaved population. As Diana Paton has observed, following Tacky's Rebellion, when the Jamaican Assembly outlawed obeah, "even apparently non-confrontational uses of obeah seemed threatening."[154] Although Paton notes whites' anxieties about obeah regardless of its apparent intent, she claims that they focused on instances when obeah targeted whites or harmed other slaves. In cases of healing and divination uses, she argues, they largely let it go.[155] Jamaican slave court records provide some evidence that slave owners and juries saw even non-malicious obeah practice as meriting punishment, though less severe than in cases where the intent was to do harm.[156] A jury in 1812 found a man not guilty of actions with "intent

[153] Grainger, *The Sugar-Cane: A Poem. In Four Books...* 135.

[154] Paton, "Witchcraft, Poison, Law, and Atlantic Slavery," 259.

[155] "Witchcraft, Poison, Law, and Atlantic Slavery," 263.

[156] An 1823 law was somewhat more specific, focusing on "Obeah practiced with intention to excite rebellion, or endangering the life or health of a slave." Quoted in Brown, *The Reaper's Garden*, 150.

so as to affect the life or health of a Negroe [*sic*] man Slave named Port Royal."[157] The nature of the intended effect goes unspecified. On the other hand, a case in 1824 ended in a verdict of guilty, but the jury recommended "mercy in consideration of his [the slave accused of practicing obeah] not practicing with an intent to do harm." The judges accepted the recommendation and sentenced the slave to three months confinement and hard labor in the workhouse, followed by thirty-nine lashes.[158] That prosecution for obeah continued through the end of slavery in the West Indies points to colonial authorities' failure to delegitimize obeah in the eyes of enslaved people, despite using violent coercion. According to Benjamin Moseley, in a passage written near the end of the eighteenth century and repeatedly quoted in the nineteenth, "laws constructed in the West Indies, can never suppress the effect of ideas, the origin of which, is in the centre of Africa."[159]

Conclusion

This chapter has examined the development of a wide variety of strategies focusing on both body and mind for managing the health and conduct of laboring populations during the eighteenth century. It has argued that these strategies often blended together, making it difficult to discern where humanitarian motives to improve people's lives and to heal ended, and where disciplinarian and authoritarian motives to commodify and cultivate laboring populations, enforce hierarchy, and regulate behavior began. The view many of these projects' executors—including military officers, plantation owners, charity administrators, and doctors—shared of poor people's bodies as objects to be manipulated by authorities through almost any means

[157] NLJ, MS 273, 14 April 1812.

[158] JA 2/18/6, ff. 36r-36v.

[159] Moseley, *A Treatise on Sugar*, 173.

further collapsed distinctions between them. Surgeons and physicians in particular made increasingly proprietary claims to the bodies of both the dead and the living. Doctors claimed the right to exhume and dissect corpses in order to rationalize medicine as a tool for improving the health of individuals and managing populations. They also assumed the right of disciplining their patients through unpleasant "treatments," and they sometimes acted as though they had a right to threaten to inflict pain on disadvantaged patients' bodies, to enforce order *and* to influence health. A major justification for these and other actions aiming to control people's behavior lay in laboring people's supposedly self-destructive inability properly to manage their own conduct.

Although such claims and practices had limits, they continued to shape approaches to managing the health and conduct of laboring populations in the nineteenth century, with the British government eventually enshrining them in law. In Ireland in 1822, an army surgeon was courtmartialled for accusations of cruelty to soldiers in his care. He was acquited, but the trial prompted an order forbidding doctors from using straightjackets "or of any other coercive mode of treatment" on their patients, except in cases of insanity, without authorization.[160] Yet, the medicalized torture of Private Glover mentioned earlier in this chapter occurred half a decade later. Further, although Parliament ended the use of dissection as a legal punishment for crime with the 1832 Anatomy Act, the Act guaranteed a supply of bodies by making available for dissection the bodies of poor people who died unclaimed by family in workhouses. The Anatomy Act left intact the association of dissection with punishment, contributing along with the 1834 Poor Law Amendment Act to the *de facto* criminalization of poverty in England.[161] It codified

[160] WL MS. 6905/8, General Orders, Adjutant General's Office, Dublin 13 April 1822.

[161] Richardson, *Death, Dissection, and the Destitute*, 192.

and made explicit the longstanding connections between doctors, medical improvement as a tool for managing health, and efforts to dominate the lower sort.

Conclusion

> The mobs against which the police have to guard come from the most depressed districts...The mobs...are proportionately conspicuous for a deficiency of bodily strength, without, however, being from that cause proportionately the less dangerously mischievous. The experience of the metropolitan police is also similar as to the comparatively small proportion of force available for public service from such depressed districts. It is corroborative also of the evidence as to the physical deterioration of their population, as well as the disproportion in respect to age. Two out of every three of the candidates for admission to the police force itself are found defective in the physical qualifications...the noxious physical agencies depress the health and bodily constitution of the populations...they substitute for a population that accumulates and preserves instruction and is steadily progressive, a population that is young, inexperienced, ignorant, credulous, irritable, passionate, and dangerous, having a perpetual tendency to moral as well as physical deterioration.[1]

In 1842, the Poor Law Commission published Edwin Chadwick's *Report on the Sanitary Condition of the Labouring Population of Great Britain.* The widely influential *Report* has figured prominently in scholarship on modern public health and population management, the bulk of which focuses on the period starting in the 1830s to the 1840s: and understandably. Urbanization and industrialization on previously unprecedented scales in Britain created widespread perceptions of an intensifying urban crisis of disease, disorder, and immiseration. The 1834 New Poor Law ushered in a period in which the British government exerted increasingly centralized control and surveillance over the administration of poor relief and public health, although this was contested and local authorities retained considerable autonomy. For example, the 1836 Births and Deaths Registration Act subdivided England and Wales into districts and sub districts with registrars reporting to a Registrar-General on not just births and deaths, but also causes of death.[2] Parliament banned inoculation in 1840 and later passed

[1] *Report to Her Majesty's Principal Secretary of State for the Home Department, from the Poor Law Commissioners, on an Inquiry into the Sanitary Condition of the Labouring Population of Great Britain; with Appendices*, (London, 1842), 202-03.

[2] 6 & 7 Will. 4. c. 86.

legislation for compulsory vaccination to secure the population from smallpox.[3] In addition, a number of mid- to late-nineteenth-century laws, such as the 1855 Nuisance Removal Act, the 1866 Sanitary Act, and the 1875 Public Health Act, aimed at sanitary engineering. To take just one more example of many other governmental strategies for managing populations, the hugely controversial Contagious Diseases Acts established from the 1850s to the 1880s in colonies and metropole enforced registration and medical inspection of women working as prostitutes—or who seemed like they might be.[4] Chadwick, a lawyer and favored supporter of Jeremy Bentham, became a polarizing figure in the 1830s and '40s as one of the principal public boosters and agents of this centralizing, interventionist trend in government. He was one the main authors of the report behind the New Poor Law and he became secretary to the Poor Law Commission, in addition to compiling the 1842 *Report* and serving on the General Board of Health established by the 1848 Public Health Act.

These were undeniably major changes in practices of government. Yet, as this dissertation has shown, many of the ideas, approaches, and strategies of these nineteenth-century projects for governing by managing populations arose earlier, in the eighteenth century, and they did so across colonial and metropolitan contexts. As did a variety of commentators during the eighteenth century, Chadwick and his contemporaries situated population as a social and political problem specifically in relation to the poor and laboring classes. Government authorities in late 1831 stressed that if cholera reached Britain, it would pose the greatest threat to "the poor, ill fed, and unhealthy part of the population, and especially those who" were intemperate or otherwise imprudent. Further, the epidemic had showed itself worst in crowded, dirty, poorly ventilated

[3] Porter and Porter, "The Politics of Prevention; Durbach, *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907*; Deborah Brunton, *The Politics of Vaccination: Practice and Policy in England, Wales, Ireland, and Scotland, 1800-1874* (New York: University of Rochester Press, 2008).

[4] See Levine, *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire*.

parts of towns.[5] Chadwick emphasized the living conditions and behavior of "the labouring classes" in explaining their especial susceptibility to diseases, though he downplayed working and industrial conditions, the impacts of which preoccupied others such as Frederick Engels. He and his allies also denied the role of poverty in creating susceptibility to disease, a controversial position. In Chadwick's view, exposure to poor environmental conditions caused the moral and physical degeneration of individuals and populations, creating pauperism, albeit through means he left mostly unexplained. Regardless of the specific theories, for Chadwick, his allies, and his opponents alike, the terms of debate and field for action centered on managing the health and character of poor and laboring populations, not individuals.

As this statement and the opening quotation suggest, the eighteenth-century entanglements of concerns about national character, order, labor productivity, security, and population health persisted in the nineteenth century. These manifested, of course, in a number of ways specific to the turbulent social and political context of mid-nineteenth-century Britain, but there was significant continuity from the earlier period.[6] As did many of the earlier authorities discussed in this dissertation, Chadwick and other nineteenth-century commentators and officials emphasized the economic imperatives for managing the health and character of the poor and laboring population. The epigraph above continues the longstanding portrayal of the laboring population as a national resource, despite the dramatic ascendance of overpopulation rather than depopulation as a central concern since the end of the eighteenth century. The problem in the *Report* is that environmental conditions are supposedly producing a degenerate

[5] TNA: PRO PC 1/4395, "At the Council-Chamber, *Whitehall*, the 20th day of October 1831. By a Committee of the Lords of His Majesty's Most Honourable Privy Council," 3.

[6] As Christopher Hamlin has argued, the *Report* was "a political document" pushing an agenda "for reorganizing society," an agenda that involved not only rationalizing government and managing populations, but also suppressing working class political activity. See Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800-1854* (Cambridge: Cambridge University Press, 1998), 157.

population incapable of productive labor or of defending order as police officers and soldiers.[7] Late eighteenth-century perceptions of the urban poor in similar terms as increasingly sickly, incapable of labor, and having reduced capability for having healthy children show class emerging as a racialized category. Although these characteristics seemed alterable, they marked the urban poor as a separate population from other British people. Chadwick's later portrayal is, of course, even more intense, with its imputations of dangerous criminality and the observation that the unhealthiest part of the population nonetheless has high enough birth rates to grow.[8] Still, in important respects, the pathologizing of the British urban poor, as part of a broader linking of subaltern populations across the British Atlantic during the eighteenth century, anticipated the turning inward of a highly racialized language of empire during the mid and late nineteenth century.

Finally, doctors, sanitation commissioners, and urban planners during the period starting in the 1830s conceived of and employed population management strategies similar to those of authorities across the eighteenth-century British Atlantic. Chadwick advanced solutions to the problems of managing laboring populations that appeared throughout the eighteenth century in discourse and in practice: "drainage, proper cleansing, better ventilation, and other means of diminishing atmospheric impurity."[9] As Chadwick himself acknowledged, many of the public health strategies he advocated already lay "within the recognized province of public

[7] For a quotation by the director of the Army Medical Department saying that soldiers recruited from the rural population will live longer than those from cities, see *Report on the Sanitary Condition of the Labouring Population of Great Britain*, 185-86.

[8] *Report on the Sanitary Condition of the Labouring Population of Great Britain*, 178-84.

[9] Riley, *Eighteenth-Century Campaign*; Hamlin, *Public Health and Social Justice in the Age of Chadwick*, 124. For the quote, see *Report on the Sanitary Condition of the Labouring Population of Great Britain*, 369.

administration," but they required newly extensive and systematic application by government.[10] The *Report* cites the effectiveness "of sanitary measures" in the navy, arguing that environmental interventions could cheaply secure the health of laboring populations, despite difficult conditions and "great labour."[11] Eighteenth-century naval commanders and administrators had been obsessed with devising and implementing such measures to maintain sailors' health and, thus, the effectiveness of ships' crews. Likewise, nineteenth-century legislation on smallpox vaccination (which Chadwick seems to have had nothing to do with) followed from eighteenth-century practices of using inoculation as a technique of security. Preserving the lives of individuals mattered primarily as the means for preserving the population as a whole, a principle that nineteenth-century legislation increasingly endorsed and institutionalized.

In sum, I argue for significant continuities in approaches and strategies for governing before and after the 1830s, while acknowledging major differences existed between the periods. These continuities further demonstrate the difficulty of drawing hard and fast lines between the early modern and the modern. The modern public health and governance of the Victorian Era drew on approaches to managing populations developed in the contexts of early modern colonies, urbanization, and warfare. Eighteenth-century empire was crucial to this development, particularly the slave system and armed forces. Compulsory inoculation on a large scale, for example, first occurred on slave ships and plantations by the middle of the eighteenth century as a practice for securing the labor value and productivity of enslaved populations. Such practices became elements of projects for managing populations and governing, even without much in the way of centralized direction or planning outside the armed forces.

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[10] *Report on the Sanitary Condition of the Labouring Population of Great Britain*, 370.

[11] *Report on the Sanitary Condition of the Labouring Population of Great Britain*, 211-12.

This dissertation, then, has examined the eighteenth-century emergence of modern approaches to governing society through the management of populations. By tracking the ways in which concerns about population, health, and social order circulated through the eighteenth-century British Atlantic World, I have attempted to contribute to a re-casting of the narratives and chronologies of modern forms of governance and their relation to the nation, state, and empire. The dissertation has highlighted the emergence of population as a social and political issue in a period and in locations not usually recognized by scholars. In doing so, it shows how the practices of governing across the British Atlantic during the long eighteenth century reflected local and global social anxieties and ideas for managing bodies over an extra-territorial expanse. Situating this study in a comparative Atlantic context, then, has raised questions about the colony-metropole dyad that focus on the colonial production of the practices, not just the theories, of governing. Consequently, this dissertation shows modern governance as a product of colonies and imperial center together, rather than as a product of the center that then flowed out to colonies.

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ADM, Admiralty Papers
CO 137, Colonial Office Papers: Jamaica, original correspondence
PC, Privy Council Papers
WO, War Office Papers

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ADM, Admiralty Papers
LOG, Ships' logs and journals [slave ships]
MSY, Marine Society Papers

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