

**Jim Downs. *Maladies of Empire: How Colonialism, Slavery, and War Transformed Medicine*. Cambridge, MA/London, UK: The Belknap Press of Harvard University Press, 2021. 262 pages. Hardcover, \$29.95.**

With the visibility of epidemiologists in the media in the current pandemic, *Maladies of Empire* raises the curtain on the long-forgotten players in the development of epidemiology and advancement of medical knowledge. Historian cum Medical Anthropologist, Jim Downs meticulously scoured original records and sources ranging from Kolkata, India to Malta in the Mediterranean, from London, England to Richmond, Virginia, in highlighting the roles slavery, colonialism, and war played in the transformation of modern medicine. The author shows that the study of infectious disease relied on the unrecognized contributions of non-consenting individuals, namely: slaves, colonial subjects, and conscripted military personnel. In effect, slave ships, plantations, prisons, and battlefields provided physicians with laboratories to understand the spread of disease. For example, by monitoring Africans, packed like sardines in the bottom of slave ships, doctors learned about the importance of fresh air. Statisticians recorded cholera outbreaks by closely observing Muslims in British colonial territories returning from their annual pilgrimage to Mecca. Military hospitals in Scutari (district of Constantinople, now Istanbul, Turkey) of the Crimean War and the US Civil War provided valuable information gathering in disease transmission. Downs explains how slavery, colonialism, and war provided built environments that contain captive populations readily available for study and the context for the theories to develop and test. He contends that tracing the genealogy of the study of infectious disease must include military occupation, power imbalances, and violence.

In explaining the roots of epidemiology, Downs notes that between 1756 and 1866, medical authorities depended on enslaved and colonized people, soldiers and Muslim pilgrims not only to observe disease outbreaks, but also to test theories and provide empirical evidence to

confirm their arguments. On-board slave ships physicians observed the brutally crowded conditions in slave holds and recognized the importance of fresh air and the benefit of ventilation systems. In addition to confining enslaved Africans to the bottom of unventilated ships, they were also poorly fed and had no space for exercise. These conditions contributed to severe outbreak of Scurvy, a disease caused by vitamin C deficiency, marked by symptoms of swollen bleeding gums and opening of previously healed wounds. In one report, 586 of the 2,064 slaves enroute the Trans-Atlantic trip to the Americas perished during the journey, probably from overcrowding.

Coincidentally, interest in the importance of fresh air in slave ships was extended to prison conditions and reform efforts in Britain and elsewhere in Europe. Inspections of prisons revealed that lack of basic necessities, such as suitable living conditions, fresh air, and clean water accounted for infectious disease outbreaks. Medical officials believed that infected inmates spread disease to others. Like slavery, European colonialism led military doctors on colonial missions to formulate theories in response to the health crises they encountered. Thus, more health case studies outside of Metropolitan centers contributed to the development of epidemiological methods. The death of British prisoners of war in India (the famous “Black Hole of Calcutta”) offered first-hand testimonies of the dangers of crowded built environments.

Downs discussed the decline of contagion theory and the rise of epidemiology by examining records of passenger ships from the Middle East and North Africa that stopped in Malta, a Mediterranean maritime traffic hub for quarantine inspections before proceeding to Europe. The fact that launderers, bedpan cleaners, and hospital attendants, who had close proximity to plague or cholera patients or objects the sick had come into contact with helped to undermine the long-held beliefs about contagion. The latent function of the position of anti-

contagionists was support from merchants who wished to scrap costly quarantine rules. The outbreak of disease in 1845 after a British anti-slaving ship patrolling the West African coasts, the *Éclair* left Boa Vista in the Cape Verde was an important case study. A British navy surgeon led an inquiry into the outbreak. Over one hundred people of African descent, including slaves were interviewed. Their testimony contributed not only to understanding the origin and transmission of disease, but also in advancing a fundamental approach in epidemiological practices.

Record keeping became one of the fundamental practices in the advancement of epidemiology. The outbreak of cholera among British troops in British Caribbean colonies enabled military doctors to share information and evolve a better understanding of cholera. Reports of the investigation of the outbreak showed that the hardest hit locations were overcrowded, poorly ventilated, filthy and neglected. How to prevent disease outbreak and how to halt its transmission became a distinctive feature in epidemiological practice. Without question, colonial and military bureaucracy, as well as required record keeping advanced the development of epidemiology.

On the heels of the report on cholera in Jamaica was the Crimean War (1853-1856). This war also speeded up the development of epidemiology through the work of Florence Nightingale, a British medical reformer. As in slavery and colonialism, sick and dying soldiers, unsanitary camps, and disease outbreaks led to reports on the cause, transmission, and prevention of diseases. Florence Nightingale produced convincing evidence in which military hospitals, like slave ships, prisons, and plantations, promoted the spread of disease. Colonial reports from India provided her further evidence that disease flourished in unsanitary built environments. To her credit, Nightingale solidified the use of statistics to keep an eye on epidemics that shaped

contemporary epidemiological and public health practices. It behooves mention that while the US Civil War (1861-1865) ended slavery, the US Sanitary Commission revived slaveholding set of beliefs to magnify racial difference and, thereby, contributed to medical knowledge. During the Civil War, the Confederacy used Black children's bodies in slave plantations to produce vaccine matter and then to be studied. Thus, like slavery and colonialism, war offered social arrangements that enabled public health authorities to investigate the cause, spread, and prevention of infectious disease.

This book shows how epidemiological practices originated from observation, treatment, and disease prevention among captive populations produced by slavery, colonialism, war, and the resulting population migrations that followed all of these. Downs unquestionably did justice to the book's topic. *Maladies of Empire* should be a compelling read for everyone interested in the connection between slavery, colonialism, and war and the advancement of medical knowledge.

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