CrossMark

attempts to establish a religious qua military alliance with Ethiopia through the establishment of hospitals with temporary in-resident Russian physicians in Addis Ababa from 1896 to 1913, highlighting the long-lasting effects of this shaky Russo-Ethiopian alliance throughout the twentieth century and well into the twenty-first. And in an almost poetic, postcolonial style analysis of Zigua healing in the mountains of north-eastern Tanzania, Walz deploys what he calls a 'critical archaeology of healing' (p. 212) to explore how 'Zigua lives and medical practice draw from a geographical, historical, and cultural borderland of mountains and the Indian Ocean to comprise a worldview in motion' (p. 197). Walz's analysis reveals a constantly emergent world view among the Zigua that – largely as a result of a long history of imperialism(s) in the area – is deeply reflective of a complex amalgamation of both African and Indian Ocean influences, fragments of which can be found within the various elements that have come to constitute Zigua healing practices. Walz's powerful interdisciplinary analysis moves beyond conventional archeological and/or historical methods to illuminate how this region specifically – and Eastern Africa more broadly – can provide us with evidence of 'coast–hinterland linkages and resonance between more recent times and deep antiquity' (p. 210), and is a superb example of the invaluable knowledge to be gained from the expansion of our view of the IOW to its western edges.

While this collection is rich in geographical diversity, many of the early chapters present what appear to be very preliminary findings, and, as such, these chapters lack the kind of systematic analysis (e.g. a broad overarching/central argument) that one might hope for with regard to such an interesting topic as Indian Ocean studies. The preliminary nature of some of the research and analyses presented likely also explains the absence of interdisciplinary methods and concepts throughout many of the chapters and the resultant dominance of conventional historical evidence or methods mentioned above. However, this is less a critique and more an expression of a hope for more to come in the future from each of these scholars.

Overall, this collection is a wonderful addition to the swiftly expanding literature within Indian Ocean studies, highlighting the multiple and complex ways in which '[h]ealing draws from and treats all phases of community experience in a hermeneutic circle that enchains antiquity to the future' (p. 197). The vast geographic focus – particularly its inclusion of the western Indian Ocean world or 'Indian Ocean Africa' – makes it an invaluable addition not only to the current literature on the IOW, but also to the fields of history of medicine and science, helping to move research in these fields beyond a conventional national or geographic vantage point. It might, therefore, be easily considered essential reading for scholars of the IOW, as well as for state- and/or nation-specific specialists of the region, and for scholars working in the fields of medical and scientific history and specialists in world/global history.

GABRIALE PAYNE
University of Minnesota

DAVID ARNOLD, **Toxic Histories: Poison and Pollution in Modern India**. Cambridge: Cambridge University Press, 2016. Pp. viii + 241. ISBN 978-1-107-12697-8. £34.99 (hardback).
doi:10.1017/S0007087416001254

Toxic Histories is a unique book on a unique theme. Toxicity affects society both locally and globally but, maybe because of the paucity and complexity of sources, it remained a neglected area of research for the humanities and social sciences. Only outstanding scholarship could have woven something so interesting and relevant out of almost thin air. David Arnold uses poison as a prism to find some less visible shades of the politics, society and culture in colonial and post-colonial India. But his primary focus remains on the colonial modes of poison governance and the role of toxicology. As a medical historian of great eminence, he rightly enquires, is poison medicine's evil twin and toxic other? Are not poisoning and pollution connected? How did this connectivity and

https://doi.org/10.1017/S0007087416001254 Published online by Cambridge University Press

overlapping evolve? Such questions would no doubt force us to rethink not only environmental but medico-scientific history as well.

The book is neatly arranged in seven chapters along with a well-laid introduction and a brief, almost poetic, concluding section. Chapter 1 begins with a section on what the author calls 'India's poison culture' as found in the Indian mythologies and oral and literary traditions, as well as in ancient medical texts and practices. Another section is titled 'The social function of poison' (without the due apology to J.D. Bernal). Here one finds not really the 'function' but the misuse of poison and the contemporary colonial sources are full of such examples on female infanticide, abortion and *thugee*. More insightful is the section on 'Poverty and poison'. Extreme poverty made people consume toxic grains to stave off death by starvation. Did the people consume such grains in pre-colonial times or did this practice became more widespread due to colonial rapacity?

Chapter 2 discusses the emergence of toxicology as scientific knowledge within colonial parameters, some kind of an imperial version of the Greek *pharmakon*. The efficacy of a drug depended also on the way it was used. Potentially harmful in one instance could be helpful in another. The author alludes to a Jekyll-and-Hyde character of a potent drug and its local practitioners. This had to be mediated by the colonial scientists and doctors who served under a dual mandate of representing the metropolitan knowledge and at the same time exploring the indigenous ideas and resources. Out of this quest emerged a new kind of colonial toxicology. Its pioneers were W.B. O'Shaughnessy, John Fleming, Forbes Royle, William Dymock, Kanny Lall Dey and many more. The nineteenth century was truly a century of bio-prospecting. The colonial medical men who explored the plants and minerals and local knowledge were not simple explorers; they thought and worked 'like a state', examining minutely the benefits and dangers of a particular product or practice (p. 66).

In the next two chapters the author goes deeper into the panics and scares that the fear of poison created, and the medical jurisprudence that emerged to deal with such situations. The society at the receiving end was bound to be a fearful society. Even well-intentioned medical interventions were received with fear and alarm. The colonizers were also scared of the 'wider culture of criminality' that they perceived among the colonized (p. 99). So colonial laws had to be equipped and strengthened. Science and law now had to collaborate, and the office of the chemical examiner played a crucial role not only in individual cases (of poisoning, murder, etc.) but more so in terms of public health, sanitation and epidemics. In Chapter 5 Arnold delights with two poison plots. Here the historian turns detective. These are private instances of 'murderous infidelities' and 'poisonous intimacies' which could have dented the prestige of the Raj. These needed not only scientific analysis but also a fairly quick judicial resolution.

The Poisons Act of 1904 comes as the 'toxic watershed'. It sought to limit the availability and sale of poisonous substance like arsenic. Previous legal stipulations were not powerful enough to give the desired result. But even in the context of the Act of 1904, one wonders whether the law was deficient or the will to enforce was weak. In a vast country like India with so many contradictory traditions and requirements, the enforcement machinery was always found weak and at best prickly. It is here that the author moves from individual and sporadic instances to societal poisoning. Issues like environmental degradation, poor sanitation and adulteration come to the fore in Chapter 7. I wish he had given more space to these issues and a little more to the pioneers like H. Hankin and W. Haffekine. But whatever comes is based on primary data (mostly from Maharastra State Archive). The turn of the century saw the notion of the polluted city emerge. C.H. Bedford, the then chemical examiner of Bengal, reported in 1902, 'no country in the world furnishes anything like the amount of toxicological material that India does' (p. 4). If this was the situation in the high noon of the empire, what would be the situation a century later? The post-colonial phase gets hardly ten pages or so but the link is established clearly. From the

https://doi.org/10.1017/S0007087416001254 Published online by Cambridge University Press

sporadic tales of poison we have moved to unprecedented and pernicious pollution. This book tells the path of this journey and explains, in a way only an accomplished historian can, why and how we live in 'an age of poisons'.

Deepak Kumar
Jawaharlal Nehru University

John M. Dixon, **The Enlightenment of Cadwallader Colden: Empire, Science, and Intellectual Culture in British New York**. Ithaca, NY: Cornell University Press, 2016. Pp. xi + 243. ISBN 978-0-8014-4803-4. $35.00 (hardback).
doi:10.1017/S0007087416001266

Cadwallader Colden, a New York politician and intellectual, was an important figure in the Moderate Enlightenment of the first half of the eighteenth century. Colden, and other New York elites, attempted to enhance the production and circulation of knowledge by various tactics, including importing books, exporting information, publishing their research and corresponding with fellow intellectuals. Despite New York's poor contemporary reputation as a haven for drunkards, the colony attracted numerous learned officials like Colden. Intellectualism went hand in hand with imperialism and elitism to produce a 'socially and ideologically narrow form of enlightened culture in New York' (p. 4). Colden's historical reputation has not fared particularly well. Indeed, his grave lost its marker at some point during the nineteenth century. Nevertheless, Colden's story provides a vital counterpoint to a narrative of the American Enlightenment that emphasizes libertarianism and the American Revolution. Colden's Enlightenment, marked by imperialism, elitism, and conservatism, is no less valid. Dixon urges readers to revisit colonial culture and thought and to take them on their own terms rather than as simple precursors to the Declaration of Independence or the Constitution. The Enlightenment, in other words, does not just belong to Jefferson but also to Colden.

Cadwallader Colden's world was one of ferment and motion. Dixon rejects the idea that America was detached from Europe. Rather, this was a period of dynamic transatlantic exchange. People, information, objects and inventions frequently passed across the Atlantic. Colden himself, born and educated in Scotland, found he could not make his fortune in London and chose to migrate to America. He settled in Philadelphia and made his mark as a physician. However, after several years, Colden became dissatisfied because he could not translate his good relationships with influential men into offices, land or a steady income. What Colden did have, however, was a reputation as a colonial intellectual, and he relocated to New York. Colden quickly established connections with the elite and was appointed surveyor general in 1720, a position that guaranteed him an income and an important place in New York politics.

'Scientific and political lives', Dixon observes, 'intertwined in early eighteenth-century New York as never before and perhaps as never since' (p. 53). Colden continued to discuss medical topics with his correspondents but he soon turned to other topics. He accompanied Governor William Burnet to a conference with the Iroquois in Albany. Furthermore, Colden's subsequent *The History of the Five Indian Nations* brought him a measure of fame as the leading authority on New York's geography and history. Colden challenged theories of progress and expressed ambiguity about European and Euro-American society. Colden, therefore, joined a list of Europeans who either praised Native American society or used it to critique European society.

Colden spent a great deal of time on his estate, Coldengham, pursuing *otium cum dignitate* (leisure with dignity) and pursuing philosophy for the public good. While the narrative of the Enlightenment foregrounds urban locations, many contemporaries would have understood that intellectual activity required seclusion and quiet. In reality, Colden's pursuits required not so much seclusion as substantial labor, of his family as well as of free and enslaved assistants, and

https://doi.org/10.1017/S0007087416001254 Published online by Cambridge University Press