

The governing historical thesis of the book is that “science and religion . . . are relatively recent conceptions that emerged in *the West* in the course of the past three hundred years” (p. ix; italics added). It is an appealing thesis that I, at least, found convincingly argued, except in one respect: Harrison’s notion of “the West” comes out as very narrow indeed. While the first chapters, dealing with antiquity and the Middle Ages, discuss key thinkers from all over Europe, the study of the developments from the sixteenth century onward, taking up the principal part of the book, is mostly dedicated to thinkers based in the British Isles. The unsuspecting reader should thus be warned that some of the developments and shifts described—even some of the most general and fundamental ones—are not transferable *mutatis mutandis* to the intellectual context of, say, France or Germany. One striking example is the lack of discussion of the intellectual spheres defined—positively or negatively—by Descartes’s intellectual program in France, Germany, Italy, and elsewhere. As a result, the reader learns very little about the various kinds of substance metaphysics that remained a key feature of Continental natural philosophy, leaving her with the impression that what came to dominate in “the West” at the time was the largely nonmetaphysical compound of science and theology that, in the British Isles, went under the name of “physicotheology.” For example, if Harrison does acknowledge that the demise of Aristotelian forms gave rise to “a tendency towards occasionalism,” we find not a single reference to any of the Cartesian philosophers who moved in that direction—Cordemoy, De La Forge, Malebranche—but only learn that this tendency “culminated in David Hume” (p. 79). We learn in the same context that “the disjunction God-or-Nature would increasingly be resolved in favor of the latter” (p. 80), and yet the book does not contain a single mention of Spinoza. But one need not adhere to Jonathan Israel’s overstatement of Spinoza’s importance for the “Radical Enlightenment” to recognize that Spinozism, taken both as a positive doctrine and as an incessantly repeated accusation, played a crucial role in the Continental debates regarding the *concordia fidei et rationis*. Leibniz is mentioned only once—as a candidate, among others, for the title of the last universal genius (p. 123)—but we learn nothing of his discussion with Bayle in the *Essais de théodicée*, a book that was among the most widely read on the relations between faith and reason in the eighteenth century and was a key text for understanding how Continental approaches to science and religion differed substantially from the physicotheological models developed by the English experimental philosophers.

This striking preference for everything British should not, however, overshadow the fact that Harrison’s account affords us crucial insights about the way in which the separation between the territories of science and religion eventually emerged. Moreover, it provides an ever-useful warning against projecting contemporary categories, even those we today consider foundational, back on the history that eventually brought them about.

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**Marcos Cueto; Steven Palmer.** *Medicine and Public Health in Latin America: A History.* (New Approaches to the Americas.) xi + 306 pp., index. New York: Cambridge University Press, 2015. \$29.99 (paper).

Over the past three to four decades historical works focused on health and medicine in Latin America and the Caribbean have burgeoned into a rich body of scholarship. Scholars delve into a myriad of subjects using medicine and health as lenses through which structural, material, and human experiences with inequality can be analyzed across race, ethnic, gender, and economic lines. To date, much of the historical inquiry on medicine and public health in Latin America and the Caribbean has concentrated on un-

covering the powerful relationships forged between medical elites, scientists, statesmen, and laypersons. In this vein, the history of Latin America and the Caribbean is situated within an interconnected globe where germs know no boundaries and disease vectors shape and reshape military campaigns and occupations, hygiene and sanitation trends, and household customs. Within this world, historical narratives and actors assume a more complex and nuanced form through scholarship that probes into the dark recesses of human suffering and the valiant (and sometimes not so altruistic) efforts of medical professionals and statesmen to launch public health campaigns to curb disease and contain contagion. Pioneering works by David Nobel Cook (1998), Alfred W. Crosby (1972), Elinor G. K. Melville (1997), and Nancy Leys Stepan (1996) laid the methodological groundwork for understanding the mechanisms that created human differences. Others have sought to tell a story about war, revolution, and social upheaval by focusing on a particular disease epidemic or public health campaign.

In their new coauthored work, *Medicine and Public Health in Latin America*, historians Marcos Cueto and Steven Palmer build on the flourishing scholarship on Latin American and Caribbean public health and medicine by offering a comprehensive synthesis extending from the pre-Columbian era to contemporary challenges with AIDS, cholera, and neoliberal responses to health care. Fundamentally, Cueto and Palmer underscore the role Latin American and Caribbean public health officials, scientists, and health institutions played in forging modern nation-states and constructing a citizenry.

Cueto and Palmer's first chapter ("Indigenous Medicine, Official Health, Medical Pluralism") provides an impressive synthesis of pre-Columbian indigenous healing in a landscape rife with environmental and biological challenges. Cueto and Palmer effectively demonstrate that indigenous systems of healing were already in place when the sixteenth-century European conquest and colonization began. Chapter 2 ("National Medicines and Sanitarian States") traces the formation of sanitary commissions, the standardization of licensing, and the formalization of medical education in regional universities in an effort to bolster the authors' argument that "Latin American medicine and public health during the second half of the nineteenth century were not only fundamentally intertwined with consolidation of nation-states; reforms in medicine and public health were central to state and nation-building" (p. 58). Chapter 3 ("Making National and International Health") explores the activities of international institutions like the Rockefeller Foundation, the PAHO (Pan-American Health Organization), and the WHO (World Health Organization), showing that public health campaigns were not entirely based on Euro-Western methods but also involved "working-class leaders, politicians, and middle-class elites" who pushed to secure their "own niche in postcolonial Latin America society by exploiting the possibilities of formal state sovereignty" (p. 106). Chapter 4 ("Medical Innovation in the Twentieth Century") pulls the reader into the post-World War II era of population booms and institutional growth in Latin America and the Caribbean, where some of the most notable medical scientists of the time operated in "relative autonomy from U.S. and local state sponsors" (p. 157). Cueto and Palmer illustrate that while largely unknown outside of Latin America, scientists like Carlos Chagas and Oswaldo Cruz of Brazil spearheaded ambitious medical inquiries into "tuberculosis, physiology, cardiology, oncology, psychiatry, and nutrition" (p. 157). Latin American medical scientists also experimented with eugenics campaigns, effectively centering the attention of national leaders on questions of race. Chapter 5 ("Primary Health Care, Neoliberal Response, and Global Health in Latin America") argues that primary health care (PCH) and neoliberal critiques and reformulations of PCH have "inflected health and medicine in Latin America over the last forty years" (p. 204). Based on models advanced by organizations like the WHO, PHC gained a toehold in Latin American and Caribbean nation-states during a time when the effectiveness of large medical institutions in addressing the needs of the majority was drawn into question (p. 206).

*Medicine and Public Health in Latin America* could easily be employed in an upper-level undergraduate course or a graduate course in any humanities or social science discipline. While Cueto and Palmer's aim was not necessarily to advance groundbreaking discoveries (most of the archival work and secondary literature cited in the book have made appearances in earlier works by both authors), methodologically their work provides a useful blueprint for writing transnational history across a particularly

long temporal arc. Outside of the academic classroom, their work would be of interest to medical practitioners and scientists who wish to expand their understanding of medical structures in non-Euro-Western contexts.

Heather L. McCrea

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**A. Mark Smith.** *From Sight to Light: The Passage from Ancient to Modern Optics*. xi + 457 pp., figs., bibl., index. Chicago/London: University of Chicago Press, 2015. \$45 (cloth).

In his *Ad Vitellionem paralipomena*, published in 1604, Johannes Kepler maintains that opticians should not go beyond the opaque wall of the retina and that what happens behind it, in the dark corridors of the brain, should be left to the philosophers to discuss. The dissociation of the study of light and its behavior from the study of sight and cognition would mark a turning point in the history of optics. The shift from sight to light—the Keplerian turn, as A. Mark Smith puts it—is the subject of this book. Smith argues that casting the science of optics as primarily concerned with light and its fundamental properties such as reflection and refraction is relatively new and that the shift in analytical focus was prompted by the publication of Kepler’s theory of the retinal image.

Smith traces the long-evolving tradition of optics from Greek antiquity to Kepler and ends with a chapter on the seventeenth-century response to Kepler’s theory. So vast a chronological and topical scope necessarily implies that choices had to be made. The author does not pretend to write a global history but focuses on the main track leading toward Kepler. It is thus a goal-oriented story, with a clear conceptual and text-based approach. Even so, the book will be of interest to a broad public: not only those with a particular interest in the history of optics and the history of science in general, but—because it includes the epistemology of sight—anyone interested in the history of philosophy as well.

For many years Smith has been considered a major authority on the history of optics, and *From Sight to Light* is the result of more than thirty years of delving into the primary sources. The author’s profound familiarity with both the primary sources and the secondary literature on the subject makes his argument very convincing. With apparent ease, Smith leads us through the most complicated theories, both geometrical and epistemological, and explains them in clear yet elegant paraphrases; this makes reading the book a true pleasure.

The author, who has previously edited and translated some of the main optical treatises that are dealt with in this book, carefully traces the history of the sources themselves. In doing so, he gives the reader a sense of how much the history of knowledge depends on the transmission of sources, both for the historical actors involved in knowledge making and for historians reconstructing such knowledge making (especially when dealing with the period before printing). The scarceness of the sources and the problematic nature of many of them often make it difficult to make certain claims about the past. The way Smith deals with these problems turns his book into a work of first-class scholarship and an outstanding example of intellectual history.

Other brilliant studies on pre-Keplerian optics have been published within the last decades. But in the diachronic history of the field, the uncontested classic remains David Lindberg’s *Theories of Vision from al-Kindi to Kepler* (Chicago, 1976). Although Lindberg and Smith cover the same subject, their approach is different: *From Sight to Light* includes new perspectives, gives ample voice to the context, and is much broader in scope. Unlike Lindberg, Smith takes psychological and epistemological issues into account in order to show that in pre-Keplerian optics the ultimate goal of vision was cognition and light theory was accommodated to sight theory. Smith also includes a detailed account of reflection and refraction in mirrors