believe that this is entirely justified: this is not a book to go to in order to find original formulations of historical mathematics. Instead, it is an accessible introduction, which provides enough references for the interested reader to pursue matters further. The balance of references seems about right for a book written at this level, with a mixture of primary and secondary sources cited. In summary, this is a very readable introduction to an important topic within the history of mathematics.

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WILLIAM E. BURNS, **The Scientific Revolution in Global Perspective**. New York: Oxford University Press, 2015. Pp. 216. ISBN 978-0-19998-933-1. £16.99 (paperback).
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Isaac Newton never left Britain. Nonetheless, his *Principia* (1687) was undoubtedly the product of an increasingly globalized world. William Burns's *The Scientific Revolution in Global Perspective* opens with a map detailing the different locations on which Newton relied for his astronomical accounts. It stretches from St Kitts across the Atlantic to St Helena; through Europe to Lisbon and Danzig; and then down into Asia, ending in the Gulf of Tonkin. Newton, many scholars now accept, cannot be treated as a man bounded by the walls of Trinity College. And what goes for Newton goes for the Scientific Revolution in general. Burns looks to bring all this into the classroom, beginning by asking, 'Was the Scientific Revolution a World Revolution?' (p. 2). However, despite a promising introduction, *The Scientific Revolution in Global Perspective* fails to deliver. There are two major flaws that run throughout.

First, there is almost no analytic framing. Burns does not tell us exactly what constitutes the 'global perspective' in the title. Instead, terms like 'global', 'globalization' and 'world' are used interchangeably with little reflection. He also fails to suggest how the 'global', whatever it might be, affects major debates in the historiography of early modern science. Instead, 'global' seems to be left as a catchall description for people and places outside Europe. When Burns does venture some analysis, it is sporadic and out of date. The language is of 'origins' and 'impact'. The thrust is broadly diffusionist, with the reader told in the conclusion that 'Western science triumphed not simply because of Western power but also because it simply worked better' (p. 162). Burns also has an annoying habit of using the word 'scientist' to describe men like Newton, Galileo Galilei and Robert Boyle. The fact that this book is designed for an undergraduate survey course is no excuse. The best existing introductions to the period, Steven Shapin's *The Scientific Revolution* (1996) and Peter Dear's *Revolutionizing the Sciences* (2001), might be Eurocentric, but at least they are historiographically grounded and offer a strong analysis.

Second, despite all its pretensions to offering a 'global perspective', the first seven chapters focus almost exclusively on Europe. In fact, they read very much like existing accounts of the Scientific Revolution. The first two chapters retrace the standard story of the development of ancient Greek and medieval Arabic science alongside the recovery of these texts in the European humanist tradition. Mentions of 'Aztec medicine' and the 'yin–yang school' are token at best. Chapter 3 is a brief improvement, explaining how European colonial expansion motivated cartographic and collecting projects. Burns also rightly points out how the ideology of 'scientific progress' underlying the work of Francis Bacon and his followers was itself a product of colonialism. From here the chapters are organized thematically. Once again, the world outside Europe does not get much of a look in. Burns's account of astronomy simply proceeds through the intellectual development of Nicolaus Copernicus, Tycho Brahe, Galileo Galilei and Johannes Kepler. We are briefly reminded that Newton deployed astronomical observations from across the world. However, who made these observations, why, and how the information got to Cambridge remain for the reader to guess. Chapters on religion,

institutions and society proceed in a similar fashion, rarely venturing beyond European academies and the Protestant Reformation.

Thankfully, the final two chapters are much stronger. In Chapter 8, 'The Scientific Revolution in the colonial world', we learn of the Royal Society's connections to the Americas alongside the cartographic work of Spanish Jesuits in seventeenth-century Mexico. There is a particularly good section on the Dutch East India Company (VOC), detailing the publication of Hendrik Adriaan van Rheede tot Drakenstein's twelve-volume *Garden of Malabar* (1678–1693). Drakenstein was governor of the VOC's colonial outpost in Malabar, recruiting a range of indigenous and European informants to compile his monumental natural history of the region. Burns also emphasizes the differences between colonial powers, suggesting that the VOC should be contrasted with the Society of Jesus in South Asia. Still, Burns's account of colonial science is framed in diffusionist terms. He begins the chapter by informing the reader that 'the theories, institutions, and instruments of the Scientific Revolution were beginning to spread across the world' (p. 129).

Chapter 9, 'The Scientific Revolution in Asia', comes closest to delivering on the promise of the title of the book. In this chapter, Burns recovers the perspectives of Russian, Chinese, Korean, Vietnamese, Japanese, Siamese, Ottoman and Indian elites. He documents how these different imperial powers understood and selectively adopted (and rejected) European science. If this sounds like a lot to fit into one chapter of nineteen pages, that is because it is. Nonetheless, Burns's account of science under the Qing emperor Kangxi is developed in more detail and gives a flavour of what readers might have hoped for throughout. We learn how European knowledge was incorporated into existing Chinese traditions, particularly those relating to the Mandate of Heaven. We also learn how in 1717 Kangxi published the results of a major cartographic project and sent a copy to Peter the Great in Russia. Here Burns finally presents knowledge exchange as two-way.

The Scientific Revolution in Global Perspective starts by asking some important questions but fails to answer them. To his credit, Burns has tried to integrate the global history of imperialism into the traditional account of early modern science. Unfortunately, the result is diffusionist and analytically weak and only seriously engages with the world outside Europe in the last thirty pages. Is there a need for an introduction to the Scientific Revolution which is both rigorous and breaks the bounds of Eurocentrism? Yes. Is this it? No.

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Dario Tessicini and Patrick J. Boner (eds.), **Celestial Novelties on the Eve of the Scientific Revolution, 1540–1630**. Florence: Leo S. Olschki Editore, 2013. Pp. xvi + 282. ISBN 978-88-222-62547. €32.00 (paperback).
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This volume consists of eleven essays drawn from papers originally presented at the Museo Galileo, Florence, in 2011. It takes as its theme discussions of the significance of 'celestial novelties' – specifically novae and comets – in the years leading up to and following the famous observations of such phenomena that took place in the 1570s. As the editors of this volume note in their introduction, the events of the 1570s are well known to historians of science. Although frequently they have been assigned key roles in narratives of the Scientific Revolution, the editors suggest that 'we still do not possess the complete picture' of their significance. Responding to this need, these essays will, they argue, provide a 'better and broader' understanding of the cosmological discussions of the period (p. x).

In a more general sense the essays in this volume are intended to present a series of new approaches to the history of celestial novelties in this period. Broadly they divide into two types: the first reconstructs the context of the debate on celestial phenomena in the late sixteenth century; the second considers how individuals responded to the challenges presented by the celestial novelties. A significant number of the essays focus on astrology and its importance in framing