Enlightenments by thinking in terms of a beam of light refracted into a spectrum" (206), to use William Bulman's phrasing of the issue. In conclusion, this book provides excellent food for thought for both specialists in the field and educated lay readers willing to acquire a deeper insight into this fascinating and complex period of human history.

Diego Lucci

American University in Bulgaria

dlucci@aubg.edu

DOI:10.1163/22141332-00603006-14

Hans-Joachim Vollrath

Kaspar Schott 1608–1666: Leben und Werk des Würzburger Mathematikers. Würzburg: Königshausen und Neumann, 2017. Pp. 176. Pb, € 28.00.

This short, well-written book serves as a fine introduction to Kaspar Schott, one of the important but less-studied Jesuit mathematicians and scientists of the seventeenth century.

Vollrath does not devote much space to Schott's early life and studies, for it was not until he began his studies at the University of Würzburg, where he became a student of the great Jesuit polymath Athanasius Kircher, that Schott's interests moved in the direction of mathematics and science. After Kircher became professor of mathematics at the Roman College, Schott came to Rome as his assistant for several years. While in Rome Schott had access to Kircher's famous museum; he was able to study, as Vollrath expresses it, "the 'anatomy' of all the machines on exhibit" ("die 'Anatomie' aller ausgestellten Maschinen," 35), and he developed an abiding interest in machines. Schott became a life-long friend and devotee of Kircher's, though as Vollrath rightly points out, he was not a slavish follower and often criticized Kircher's work. But Schott always addressed Kircher respectfully and helped get several of his books published.

Schott began to write his own books after he left Rome for the German territories and spent the last eleven years of his life as professor of mathematics at the University of Würzburg. Vollrath rightly emphasizes the importance of this move because it was here that Schott became an author in his own right, as it gave him access to Frankfurt publishers and exposed him to several important experimentalists. Most interesting was Otto Guericke, who developed a machine to create a vacuum, and Schott began experimenting with the machine. Vollrath claims that Schott's experiments with the vacuum were the

“earliest experiments in natural science at the University of Würzburg” (“als frühe naturwissenschaftliche Experimente an der Universität Würzburg gewürdigt,” 69); thus, Schott began a lasting academic tradition at the university.

Vollrath describes Schott’s major books: the earliest was the *Mecanica hydraulico-pneumatica* (1657), in which he discussed his experiments with the vacuum as well as pumps and other machines, proving that air had weight. The *Magia universalis* (1657–59), in which he tried to “make the wonder of nature understandable so that one could thereby create the wonderful” (“die Wunder der Natur verständlich machen, so dass damit Wunderbares schaffen kann,” 71), was more comprehensive. It dealt with material of the first book but also presented a host of mathematical and scientific issues; some of them, like magic and astrology, which are not considered scientific today, were considered so in the seventeenth century. Vollrath goes into more detail on a few of the issues, such as the possibility of perpetual motion and mathematical puzzles. Descriptions of the other ten books by Schott follow. Schott was an extremely prolific author; those twelve books were written in about a decade, and several books were first published posthumously. Vollrath proposes plausible solutions to the puzzle regarding the pseudonym Schott used for one of those posthumous books, *Ioco-seria naturae et artis*: Vollrath suggests that Aspasius Caramuelius could be an anagram for either “Casparus Amasius Veli,” Caspar, lover of sails, which refers to Schott’s metaphor of sailing through “the divine wind favored with full sails” (“göttlichen Wind begünstigt mit vollen Segeln”) toward scientific discovery in the preface to *Magia universalis*, or “Casparus Amalius Iesu,” Caspar, fighter for Jesus, a reference, of course, to his status as a Jesuit (139). Schott’s textbook on practical arithmetic, *Arithmetica practica generalis*, and parts of his *Magia universalis* were republished into the eighteenth century.

Despite the many footnotes (at the bottom of the page!) and extensive bibliography that includes archives and manuscripts consulted by the author, this book seems aimed toward a general readership. Not only is the text a mere 168 pages, but it is interrupted by numerous pictures. All quotes from Latin are translated; even seventeenth-century German texts are given in modern spelling. Nor are the originals provided. Vollrath describes Schott’s books, but there is very little analysis, and Vollrath does not engage with the historiography of seventeenth-century science. Vollrath, for example, claims that Schott’s attribution of physical causation to angels and demons in his *Physica curiosa* (1662) was due to the fact that “he was also a theologian” (“er ja auch Theologe war,” 107), but in the mid-seventeenth century this was a perfectly acceptable *scientific* explanation.

Such caveats notwithstanding, Vollrath has provided us with a book that anyone interested in seventeenth-century Jesuit science would be well-advised to read.

Sheila J. Rabin

Saint Peter's University, Emerita

rabinhist@nyc.rr.com

DOI:10.1163/22141332-00603006-15

Matteo Binasco, ed, with a foreword by Kathleen Sprows Cummings

Roman Sources for the History of American Catholicism. Notre Dame, IN: University of Notre Dame Press, 2018. Pp. xxi + 196. Hb, \$75.00.

This is a generous and useful work of scholarship. By compiling an extensive list of Roman sources for the study of American Catholicism, Matteo Binasco makes possible a new generation of richly transatlantic research. His meticulous and practical descriptions of archives will be treasured by everyone seeking to understand the history of the Roman Catholic Church in the United States.

Binasco credits Kathleen Sprows Cummings as a driving force of the book, and her cogent foreword sets forth the surprising reason it was needed: historians' turn toward social history in the 1960s and '70s, along with their increased emphasis on what was distinctive in American Catholicism, caused the faith's European roots to fade from scholarly view. Although this approach bore fruit in, for example, explorations of lay Catholic experiences, it could not fully capture Catholicism's nature. Nor did an exceptionalist lens accord with the Atlantic World and global history paradigms adopted in recent years by historians studying other aspects of American history. Thus, Binasco's work offers scholars the ability not only to analyze American Catholicism more thoroughly, but also to integrate those examinations with other vibrant subfields in the discipline. As Cummings astutely notes, to take advantage of Binasco's gift, scholars will have to bring along their own linguistic tools: the majority of archives reward scholars able to work with texts in ecclesiastical Latin and Italian.

Luca Codignola and Matteo Sanfilippo, significant figures in the study of American Catholicism, helped to guide Binasco through his exploration of the archives and in an introduction to the volume, they orient the reader as well. They explain that the guide is meant primarily for historians exploring the years 1763 through 1939, a brace of dates that reflects the complicated ways in which American history and Catholic history intersect. 1763 marks the ceding