go to the censors in Rome before publication. Scheiner’s wings were now clipped, and he turned to the purely mathematical job of measuring the positions and motions of sunspots, a labor requiring immense skill and patience. But the publication of his results, *Rosa Ursina*, also contained a powerful argument for the fluidity of the heavens.

In 1630, however, that proposition was much less controversial, because Catholic astronomers now subscribed to the cosmological system of Tycho Brahe, in which the intersecting spheres, and also the satellites of Jupiter, ruled out solid crystalline spheres. Between the publication of *Sidereus Nuncius* in 1610 and *Disquisitiones Mathematicae* in 1614, those issues were controversial and Jesuit astronomers had to be very careful not to be seen as favoring the Tychonic system, which at that point was held to be yet another product of the heretical Protestants. Even Clavius, in the final edition of his commentary on the *Sphere of Sacrobosco* (1612), acknowledged the reality of Galileo’s discoveries but left it to future astronomers to work out their meaning. In Ingolstadt the Jesuit fathers had not received guidance from Rome, and they encouraged Scheiner to publish on the cosmological questions raised by the telescopic revelations—first, in 1611, anonymously, then, in 1612, pseudonymously but with local superior permission, and finally, in 1614, under the name of a student, again with superior permission. At that point the South German mathematician/astronomers were muzzled by Rome. Scheiner, a brilliant if irascible scientist, was posing, and tentatively answering, cosmological questions that had occupied his South German colleagues at least since the new star of 1604. Christopher Graney has produced an important addition to the literature. We can now read the *Mathematical Disquisitions*, freed from the Galilean narrative. (I have relied in this review on sources used in Eileen Reeves and Albert Van Helden, *On Sunspots* [Chicago, 2010].)

Albert Van Helden

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In his own day, Richard Baxter (1615–1691) was a well-known English nonconformist divine and practical theologian. Historians of theology seldom pay attention to Baxter’s philosophical ideas, although these ideas, as David Sytsma argues, reveal a deep understanding of philosophical issues in the early modern period. Therefore, as he writes in the opening statement of his book, “Richard Baxter deserves to be better known as a *philosophical* theologian” (p. 1; emphasis added). Baxter is also a familiar name among historians of science, because Max Weber and Robert Merton used his *Christian Directory* (1673) as “a typical representation of the leading elements in the Puritan ethos” (p. 7), which was said to be congenial to the new science. Yet Baxter was very critical of the new mechanical philosophy and participated in the controversies surrounding the beginning of the Royal Society. Sufficient reason, then, for Sytsma to devote a full-length study to this controversial Puritan and, in particular, to his ideas regarding the mechanical philosophy. The book is a revised and expanded edition of a doctoral dissertation defended at the Princeton Theological Seminary.

After a lengthy overview of the existing literature, Sytsma sets out to discuss a number of themes that are relevant for a full appreciation of Baxter as a philosophical theologian and a critic of the mechanical philosophy. First he traces the rise of the mechanical philosophy in England in the 1650s and 1660s, highlighting the impact of Pierre Gassendi, whose Christian Epicureanism and corpuscular philosophy of na-
ture was very well received in England. Baxter was deeply troubled by the rise of the new philosophy and from the early 1660s consistently defended the traditional Aristotelian philosophy of nature. Mechanical philosophers like Descartes and Gassendi gave, in his words, “so much to meer Matter and Motion,” while neglecting substantial forms and other principles of Aristotelian philosophy, “that they differ as much from true Philosophers, as a Carkass or a Clock from a living man” (p. 100). Next follows an excellent discussion of Baxter’s position with regard to the place of reason in philosophy, in which it is made clear that, contrary to what is sometimes said, Baxter was not a proto-rationalist. He preferred the wisdom of tradition and earlier generations of philosophers over those who claimed to be able singlehandedly to reform philosophy. Notwithstanding the Fall, Baxter remained confident that the human senses in a restricted sense could still provide adequate information about the natural world. The following chapter details Baxter’s own Mosaic philosophy of nature, with a peculiar stress on Trinitarian elements in nature. Then Sytsma discusses Baxter’s criticism of the theory of motion as expounded by Descartes and his followers in England, while the following chapter addresses Baxter’s objections to the hidden or outspoken materialism of the mechanical philosophers and their related denial of the immortality of the soul. Finally, Sytsma gives a penetrating analysis of Baxter’s concern about the moral implications of the mechanical philosophy, especially the threat of necessitarianism and the transformation of the theory of natural law by people like Hobbes and Spinoza. The book ends with a short conclusion and three appendices: a chronology of Baxter’s post-Restoration writings on philosophy, a letter to Joseph Glanvill, and Baxter’s lengthy rebuttal of Thomas Willis’s De anima brutorum (1672).

The author has done a great job in showing that Baxter was a philosophical theologian with a deep understanding of the developments in natural philosophy of his day. He was a conservative who remained strongly attached to the Aristotelian belief in the existence of substantial forms, yet he also incorporated a few elements of the corpuscular theory of matter in his own natural philosophy, something Sytsma right-fully ascribes to his great respect for Robert Boyle. Baxter’s arguments against the mechanical philosophy are represented as reasonable objections to a philosophy that put too much trust in reason and ignored that science and scholarship are basically a common effort of philosophers, not a one-man job. This fits in with the current trend to give more credit to the opponents of the new science than was the case some decades ago. On the other hand, is this picture of Baxter really new? There are a few points where Sytsma is able, on the basis of a wider range of sources than commonly used, to paint a different and more sophisticated picture of Baxter. His integration of some snippets of the corpuscular theory in his account of the structure of the world is a case in point. But in general we are confronted in Richard Baxter and the Mechanical Philosophers with a picture that essentially confirms what we already know. And we hardly needed an extensive discussion of Baxter’s ideas to refute the once-popular idea that midcentury Puritans were instrumental in bringing forward and propagating the new science. The Merton thesis is long dead and should not be revived in order to be refuted again.

Klaas van Berkel

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Peter Sahlins. 1668: The Year of the Animal in France. 491 pp., figs., notes, bibl., index. New York: Zone Books, 2017. $34.95 (cloth). ISBN 9781935408994.

This is an important book for the history of animals in early modern Europe. In the wake of the ongoing animal turn in the social sciences, historians have become increasingly concerned with the question of how to integrate animals into broader narratives of historical change. Studies by French historians such