

Klaas van Berkel, Albert Clement, and Arjan van Dixhoorn (eds.), *Knowledge and Culture in the Early Dutch Republic: Isaac Beeckman in Context* (Amsterdam: Amsterdam University Press, 2022, 486 pp., ISBN 9789463722537).

The editors of this volume have commissioned an important group of research papers on aspects of the work of Isaac Beeckman (1588-1637), who is best known for his contributions to natural philosophy. But for several decades, questions have arisen about whether he should be studied as a philosopher or as another kind of investigator, perhaps a learned artisan. After all, Beeckman published nothing himself, and the excerpts from his notebook that were printed posthumously in 1644 apparently went without notice. Perhaps the survival of his notebook is simply a rare example of how others of his contemporaries also went about their work? Questions about how best to characterize him are well represented in the work of the contributors to the book.

Although his name first surfaced in seventeenth-century biographies of his protégé, René Descartes, Beeckman became legible due to the publication of his *Journal* by Cornelis de Waard in a four-volume edition (1939-1953). Subsequently, the mid-twentieth-century framers of the mathematico-mechanical ‘Scientific Revolution’ gave Beeckman an important place in their works. It was not until the 1980s, however, that the content of the *Journal* began to be closely studied, first by H. H. Kubbinga’s examinations of the arguments about elemental matter found in it and then by Klaas van Berkel’s 1983 intellectual biography of Beeckman (later revised and published in English in 2013). By then, as the editors point out, the emergence of a ‘social history of science’ that included explanatory contexts other than those of intellectual history had begun to bring the study of practice and experience into the history of natural philosophy, and Van Berkel gave attention to Beeckman’s artisanal interests as well as his philosophical ones.

The editors situate the studies in this volume in the more recent formation of the ‘history of knowledge’, which de-essentializes the standard picture of the rise of a coherent mechanical philosophy even more. As an indication of the iconoclastic implications of many new studies they conclude the volume not by re-describing in general terms Beeckman’s contributions to knowledge, but by offering some remarks on further directions for studying the *Journal* and its author’s world, inviting us into the study of it. The contributions included here will be indispensable for anyone who wishes to dig deeper.

Most of the papers focus on several of the major subjects that can be examined by beginning with Beeckman's *Loci communes*, or notebook. The contributions are grouped into three sections: Beeckman's place in the natural philosophical debates of his time; his contributions to particular fields of study (the telescope, optics, medicine, motion, and plant physiology); and his 'context'. The latter group constitutes an eclectic bundle of investigations into subjects further removed from Beeckman's natural philosophy per se, looking into the knowledge networks of Middelburg and Rotterdam, his connection to other technical innovators – most especially Cornelis Drebbel – his choice of Dutch or Latin in expressing his ideas, and his use of illustrations. Some of the contributions stand out as particularly strong. Édouard Mehl places Beeckman alongside Kepler and Descartes in his philosophical explorations of optics and matter, arguing that Beeckman's views about motion were in conversation with Kepler's but distinctive in placing matter (hence quantity) before the expression of materially-constrained potentiality. While the sources of Beeckman's philosophical materialism are not entirely clear, Elisabeth Moreau – who writes about his physiological views – adds support to Mehl's view by arguing that they arose from Beeckman's use of Lucretian atomism as a foil for attacking the new Galenism of the period.

One could further remark that some of the medical neo-Aristotelians of Padua, most prominently Santorio Santorio, had recently been exploring similar lines of investigation, which had an effect on Galileo not unlike Beeckman's on Descartes. Since the Leiden medical school was modeled after Padua's, the implications raise further questions about whether the approach Beeckman took in studying for medicine before taking his MD at Caen in 1618 (immediately prior to his meeting Descartes) had precedents in his brief period at the Dutch university. Moreau also mentions Beeckman's apparent ability to use the library of his Middelburg friend Philippus Lansbergen, a Calvinist minister also known for his astronomical studies. Lansbergen in turn figures prominently in Tiemen Colquyt's outstanding study of Beeckman's corpuscular optics, including his work with lenses. Huib Zuidervaart's fine study of Beeckman's early networks suggests, however, that he was not a part of the elite *curiosi* of Middelburg but rather a participant in the lively discussions and demonstrations taking place among the artisans of the city. Arjan van Dixhoorn further explains that his familiarity with the *consten-*culture of vernacular learning arose from the chambers of rhetoric in which Beeckman participated and which had a long tradition of mingling academic learning with tacit, experiential knowledge.

If we follow such lines through the book, moving from transformative arguments in natural philosophy to the personal networks that enabled Beeckman to pursue his studies and the places where they were situated, other questions begin to emerge, too. Since several of the contributors point to the presence of a set of lively argumentative practices carried on in the literate artisanal culture of the corporate, lawful, materialistic, and technically adept

burgers, it would be helpful to have further guidance on how to interpret that world, which is central to the history of knowledge. The editors devote few words to historiographical advocacy, even though the lively field they invoke is clearly visible in the Utrecht-based *Journal for the History of Knowledge* as well as many other places.

Working back to that socio-cultural world raises further questions about Beeckman's daily routines in his profession as a teacher and later principal in the Latin schools of Utrecht, Rotterdam and Dordrecht. They also open up possibilities for seeing his approach to natural knowledge as related to his earlier failure to find a congregation for his ministry, which pushed Beeckman to the study of medicine and then into teaching. As the editors' own conclusion-as-an-invitation-to-further-research notes, there is much yet to know about Beeckman's religious views. For example, his father was associated with the radical Brownists, who wanted to restore a primitive church; would the son therefore be well-placed to give serious attention to pre-Aristotelian philosophical sources such as the Epicureans?

But we are offered no essays about the religious or educational worlds in which he moved. Nor do we learn about the contemporary socio-political-ideational spaces that fostered them. The emergencies of the Dutch Revolt, for example, pushed many people into the making of armaments, fortifications, docks and shipyards, and other material improvements; the governing assumptions about the nature of the Republic were fiercely disputed; the demands and opportunities flowing from the *regenten* as they sought cultural capital stirred many innovations; diverse populations of knowing immigrants and transients, and connections to the rest of the fluvial world, were bubbling up in the urban spaces through which Beeckman easily moved. Despite the absence of a concluding assessment of the knowledge and culture of Beeckman's Dutch Republic, however, these many fine studies of him do much to further the understanding of how he navigated his way through it.

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