Nikolaus Egel. Ed. Roger Bacon, Opus Tertium. Philosophische Bibliothek 718. Hamburg, Felix Meiner Verlag, 2019. cxxvi + 1091 p. ISBN: 9783787336241. Cloth: € 168

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Roger Bacon (1214/16–1292/94) was a prolific writer whose philosophical work spans a remarkably long period during a century that saw much intellectual, cultural, religious and political upheaval in Europe and beyond. His own path in life bears witness to these changes: he was an English noble by birth, Master of Arts at the young University of Paris in the 1240s, a Franciscan friar (1257), a tenacious researcher, an acerbic critic of university life, a visionary, and an outcast. His interests also reflect the varied philosophical and theological debates and controversies that occupied thirteenth century scholars. His later writings cover a wide range of topics, including philosophy of language, natural and moral philosophy as well as optics and astronomy. In addition, Bacon's *Opus tertium*, the last of three works composed at the behest of Pope Clement IV between 1266-1268 (the other two being *Opus maius* and *Opus minus*), records many of Bacon's ideas and arguments on these issues, which is why an updated Latin edition has long been a desideratum in modern Bacon scholarship.

The table of contents and opening diagram (p. XXXVIIf.) of Nikolaus Egel's edition provide readers with a helpful overview of the different sections of Bacon's Opus tertium, while simultaneously giving a helpful impression of the structure and comprehensiveness of his impressive editorial effort. Beginning with Pope Clement's letter to "Brother Roger" there follow 114 chapters divided into two parts. Readers familiar with John Brewer's 1859 edition of *Opus tertium* will notice that this number far exceeds Brewer's edition. Much to modern scholars' chagrin, Brewer's edition was based on an incomplete English tradition of four manuscripts ending in part IV of Opus tertium, thereby leaving Bacon's discussion of mathematics unfinished. By incorporating separate manuscript traditions preserving part IV and parts V-VII of Opus tertium - previously identified by Pierre Duhem (1909) and Andrew Little (1912) – Egel's edition restores Bacon's treatment of perspectiva, scientia experimentalis and moralis philosophia in Opus tertium in one unified edition, accompanied by a German translation. The new edition marks the difference in these manuscript traditions by dividing Opus tertium into parts I and II. Whereas Brewer's older edition of part I ends with chapter 75, Egel, retaining the chapter numbering used in Duhem's and Little's manuscript editions, continues part II with chapter 76, adding chapter titles helpful to the modern reader. Even though Bacon intended Opus tertium to be of a piece, Egel's division into parts, chapters, and numbered text segments corresponding in Latin and German (part I, chapters 1-75, §§ 1-517, part II, chapters 76-114, §§ 1-361) will aid the modern reader by providing a text with an exceptionally clear visual structure. In addition, the reader will benefit from a diligently prepared critical apparatus, informative endnotes (pp. 973-1029), and a well-organized bibliography listing Bacon's later works in chronological order, in addition to his sources and relevant secondary literature. Egel's fluent and readable German translation occasionally includes Bacon's original choice of terminology in the German text, thereby showing respect for stylistic idiosyncrasies and the multifaceted nature of medieval Latin technical terminology. Egel's translation vividly conveys Bacon's enthusiasm about the utility of the sciences, and his introduction situates Opus tertium in the context of the second half of Bacon's life and provides the reader with an overview of the core themes and main disciplines Bacon discusses. Moreover, Egel's extensive introduction provides much helpful historical information by giving the reader an appreciation for the relations between Opus maius, minus, and tertium as well as Bacon's intellectual and cultural context and personal situation: why he wrote Opus maius, Opus minus, and Opus tertium, noting, for instance, that Bacon wrote Opus tertium not only as a summary of materials already presented but used it to further develop important arguments. Egel's introduction conveys Bacon's sincere concerns for the state of education in a time of social strife, as well as his difficulties in completing the work requested by the Pope in a timely manner for reasons of limited funds and censorship. As a result, Egel makes a compelling case as to why these three works stand out among thirteenth century philosophical writings: Together with Opus minus and Opus maius, parts of which Nikolaus translated in a separate volume, Opus tertium represents, on one hand, a powerful appeal to the Head of Christendom to take note of the dire need for comprehensive reform of study and society and, on the other hand, an attempt to persuade him to take up Bacon's systematic reform program. The reader also learns that not only Asteroid no. 69312 bears Bacon's name but so does a crater on the moon.

As Egel makes clear, Opus tertium shares with Opus maius and Opus minus much zeal for scientific, academic, and social reform. After all, the intended recipient was not an academic audience or Bacon's Franciscan confreres. As the letters at the beginning of the work convey, the addressee was nobody less than Clement IV, Pope from 1265-1268, at whose request Bacon composed these three works in the short space of only two years. All three works were intended less as academic and more as rhetorical pieces aiming at persuading Clement IV of what Bacon considered to be much needed social and academic reform to remedy certain grievances, alleviate suffering, and improve life. Bacon, Egel emphasizes, was motivated by what the late Camille Bérubé called scientific messianism ("wissenschaftlicher Messianismus"), a project aiming at reforming scientific content and methods in the service of the well-being of all humankind. Bacon calls on the Pope to purge academia of its sins, to reinstate proper scriptural exegesis and foster the study of language as well as optics and music to restore salutary but neglected wisdom and to advance Christian moral ideals. He advocates methods anchored in mathematics and experimental science while always emphasizing the harmony between Christian theology and pagan philosophy. Here Egel provides important nuance to some traditional characterizations of Bacon's reform program as variations on the late ancient theme of philosophia ancilla theologiae. Bacon emphasizes the unity and common origin of all sciences and disciplines in divine revelation and illumination, but there is a twist: Even though theology formally rules all sciences, she

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cannot do her work without the philosophical sciences. With this interpretation, Egel not only follows Bérubé's thesis of scientific messianism but further radicalizes it in the light of a 1957 study of Roger Bacon's thought by Franco Alessio. According to Egel, the focal point of Bacon's messianism is not otherworldly but secular, and Bacon's reform project advocates for a *secular* science avant la lettre, rooted in scientific optimism and an uncritical belief in the power of *human*. This interesting and controversial thesis would have benefited from more corroboration in the form of textual evidence and from a critical discussion of Bacon's remarks on divine illumination and the divine origin of all wisdom prominent in *Opus maius* and *Opus tertium*.

Nikolaus Egel's edition of Roger Bacon's *Opus tertium* is invaluable to German scholars in virtue of the clear and accessible translation, but the work will also appeal to an international audience of Bacon scholars and all those interested in Latin medieval intellectual history. In closing, Nikolaus Egel's work is praiseworthy in virtue not only of its thoroughness and comprehensiveness, but also because of the clarity of his style, the astuteness of his translation and the overall coherence and organization of his edition. His work will serve as a powerful aid to future generations of students and scholars in their inquiries into Bacon's work and its place in thirteenth century philosophy.