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***The Correspondence of Johannes Hevelius, Volume IV: The Correspondence with Stanisław Lubieniecki*, by Maciej Jasiński. (Turnhout, Brepols, 2021). Pp. xvii + 573. ISBN 978-2-503-57118-8 (hardback), 160 × 240 mm, Euro95.**

In 2014 Brepols began publishing the correspondence of the Polish astronomer Johannes Hevelius (1611–1687); his correspondence contains 2,800 items, mostly in Paris. In this volume, we are presented with letters between Hevelius and Stanisław Lubieniecki, a Polish nobleman who became enamoured with comets. Of the 92 letters in this book (31 by Hevelius, 61 by Lubieniecki), virtually every one is devoted to cometary issues, making it a treasure trove for historians of astronomy. While some astronomical topics were included in the first three volumes, this most recent book in the series is devoted almost exclusively to the two comets of 1664 and 1665.

These letters span the period December 1664 to December 1673, but they are concentrated in the ‘comet years’ of 1664 and 1665. Most subsequent letters deal with their respective efforts to publish books about comets, and find buyers for them (Hevelius published his landmark book *Cometographia* in 1668). Both men lament that so few people are interested in mathematics and astronomy (Hevelius in Gdansk, Lubieniecki in Hamburg) that they have to resort to giving books away, as buyers are so scarce!

For the first four years of the correspondence, Lubieniecki was primarily concerned with gathering observational reports on the comet of 1664, which he eventually published (along with historical cometary observations) in 1668 as *Theatri Cometici pars prior*. To do this he became one of the nodes in the Republic of Letters; this is not a term that historians have retroactively assigned, as Lubieniecki himself uses it. Despite pleas, Hevelius did not send Lubieniecki any of his comet observations from 1664 and 1665 for the *Theatri* book.

The 1668 book contains little that one would today regard as scientific. Almost every report is merely descriptive. A typical example is this 1665 report from Johannes Mueller:

On 15 January, at 9 o'clock in the evening, the comet was almost in a straight line with the first star of Aries and the star in the preceding horn, more towards the south. Its distance from the first star of Aries was five parts, and from the star in the preceding horn – seven parts.

These rather useless descriptions go on for pages. More interesting is Hevelius' assessment of Mueller's commentary of the vis-

ibility of cometary tails and the path followed by the comet. A full page is devoted to Mueller's letter to Lubieniecki on why some comets show no tails ("... the tail of a comet and its size depend (among other things) on its aspect to the Sun ..."; page 147). Hevelius tells Lubieniecki in a letter dated 27 January 1665 that

... Mueller thinks that the comet is bending its course – but it is not the case. It is continually following the path it entered, but what he says about the tail is generally correct. (page 156).

This is just one example of the rich original source material which, after more than 350

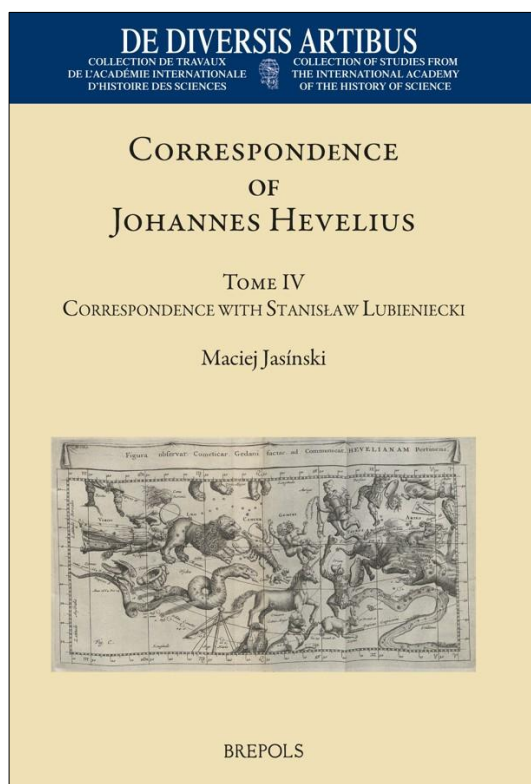
comet on 22 December 1664, along with a plot of the comet's position (reproduced here on a full page), is letter 52A. A further missive from Reyher is letter 52B, about an object in the belt of Andromeda. Reyher writes "With the naked eye, it looks like a little cloud. But with a ten-foot telescope it looks like a tail of a comet (turning away from the Sun)." It seems remarkable now that an object which keen-eyed observers had been seeing for centuries could be mistaken for a transient comet. Remarks on the Andromeda Nebula (actually the closest galaxy akin to our own Milky Way) form a subtext that recurs in many letters, as several people were convinced it was a comet.

Jasiński is quite direct in his assessment of Lubieniecki: he "... conducted no continuous astronomical observations, because he lacked the abilities and the precise instruments." (page 70). Even worse, his 1668 book was a flop. "The results of Lubieniecki's efforts to synthesize the data he collected were rather mediocre." (page 70).

Following the correspondence are three Appendices: Lubieniecki's extract from two of Hevelius' books, *Prodromus Cometicus* and *Descriptio Cometae*; and Lubieniecki's opinion of the meaning of comets. Lubieniecki was inconsistent in his views. At one time he thought comets were messengers of divine origin (page 74); but he also stated comets cannot affect the Earth (page 77). All letters in the book, along with the Appendices, are given in Latin or French, and expertly translated.

The book contains a few illustrations, but their reproduction in B&W is poor. While the text is superb, the Index is a disaster: entries are not even in alphabetical order!! The Index extends to page 92, which includes only the Introduction. Some names in the correspondence are included with the numerical designation of the letter, but it is not consistent. In the entry for Christian Busmann, for example, a letter he wrote (29A) is not indexed. The Index first lists him on page 32, but his name does not appear there.

Since this book was published, Jasiński (2023) has written a paper on the correspondence (32 letters) of Hevelius with Michał Antoni Hacki, abbot of Oliwa monastery. It presents hitherto unknown circumstances about the creation of the constellation Scutum, which is mentioned in the book under review.



years, is finally available in the *lingua franca* of modern science. Maciej Jasiński (Polish Academy of Sciences) has done a great service to the history of astronomy with this publication of the letters of Hevelius, last of the great pre-telescopic astronomers.

In addition to his correspondence with Hevelius, Jasiński has gone the extra mile by giving us ancillary correspondence that directly relates to the cometary theme. These are denoted by letters after the main number. For example, letter 52 from 2 November 1666 is from Lubieniecki to Hevelius; it includes a letter Lubieniecki received from Samuel Reyher, Professor of Mathematics at the Academy in Kiel. His observations of the

## Reference

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**Johann Gabriel Doppelmayr (1677–1750),** by Hans Gaab. (Leipzig, AVA Akademische Verlagsanstalt, 2023 *Acta Historica Astronomiae*, Volume 70, Two Volumes). Pp. 1186. ISBN 978–3–944913–62–9 (softcover), 148 mm × 210 mm. EUR 49.

Hans Gaab, born in 1956, was a teacher of mathematics and physics in Nuremberg until his retirement. He has been interested in the local history of astronomy for many years and has published numerous books on the subject, some of which have appeared in the *Acta Historica Astronomiae*.

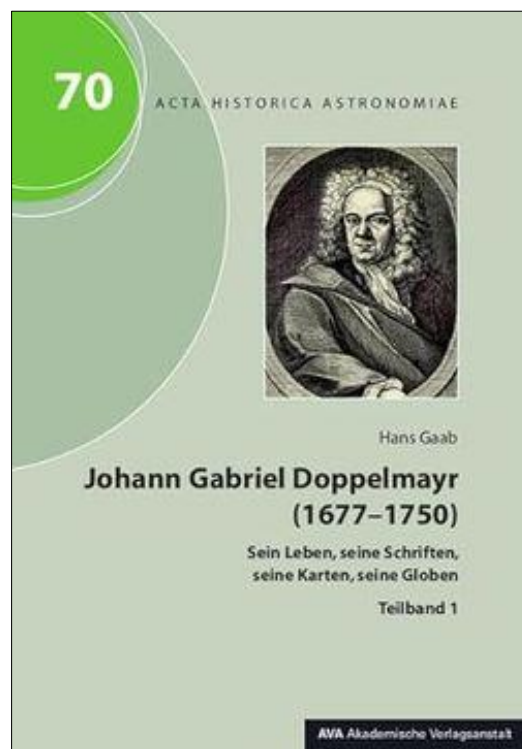
His latest work presents Johann Gabriel Doppelmayr, who is best known for the *Atlas Coelestis* from 1742, which summarizes the astronomical knowledge of the time. The unfortunately little-known German scientist also made terrestrial and celestial globes; he was the leading Nuremberg globe-maker of the eighteenth century.

The author reports in detail about Doppelmayr's life and work. Due to the large size of the presentation, the Akademische Verlagsanstalt in Leipzig has divided it into two parts with consecutive page numbering. The impressive publication is subtitled *Sein Leben, seine Schriften, seine Karten, seine Globen* (*His Life, his Writings, his Maps, his Globes*). Both volumes contain numerous illustrations, mostly in black and white, as well as many tables and footnotes.

The first part deals exclusively with Doppelmayr's biography in more than 500 pages. Johann Gabriel Doppelmayr was born in Nuremberg in 1677 as the son of a merchant. After briefly studying law in Altdorf, he moved to the University of Halle. His focus was now on mathematics and physics. After graduating, Doppelmayr traveled to Holland and England for two years. In 1704 he received a position as Professor of Mathematics at the Nuremberg Egidienngymnasium. In 1710 he also became Director of the Eimmart Observatory on the Vestnertorbastei. Doppelmayr was a member of sever-

al scientific societies, notably the Leopoldina (1715), the Prussian Academy of Sciences (1715), the Royal Society in London (1733) and the Russian Academy of Sciences in Saint Petersburg (1740). Gaab also introduces important scientists who were in contact with the German colleague. Among them were Christian Goldbach, Joseph-Nicolas Delisle and Anders Celsius.

In 1716, Doppelmayr married Susanna Maria Kellner, who was 20 years his junior. They had four children, one of whom (Johann Sigmund) survived. Johann Gabriel Doppelmayr died in 1750, the age of 73—not as a result of a violent electric shock from



a battery of Leiden bottles, as is often claimed, but according to the author's research as the result of a stroke.

The second part of the book consists of three main chapters. The first presents Doppelmayr's printed works, which mainly deal with geographical and mathematical topics. His publication of 1730, titled *Historische Nachricht von den Nürnbergischen Mathematicis und Künstlern* (*Historic Note about the Nuremberg Mathematicians and Artists*), is still an important source for historical research today. Other books cover instrumentation, surveying, and the emerging theory of electricity. A small section describes Doppelmayr's books on sundials.