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Beiträge zur Astronomiegeschichte, Band 6 *(Acta Historica Astronomiae 18)*

Wolfgang R. Dick & Jürgen Hamel (eds.)

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The 18th volume of the Acta Historica Astronomiae is at the same time the sixth collection of essays on the history of astronomy ("Beiträge zur Astronomiegeschichte, Band 6"), edited by the historians of astronomy W.R. Dick (Potsdam) and J. Hamel (Berlin). Besides a few short notices and book reviews, the book contains eight major articles, which deal with astronomical topics covering the time from the 16th to the 19th centuries.

The first article by Michael Weichenhan (Berlin) deals with "the invention of the disk-shaped earth: a chapter of Copernican apologetics". The author shows that the concept of a "disc-shaped Earth" was by no means widespread in the middle ages, but restricted to the father of the church Lactantius and some adherents. Nevertheless, it was used by adherents of Copernicus to show the absurd consequences of a strictly literal biblical interpretation – here concerning the Earth's shape, disc versus sphere, there the geocentric versus the heliocentric system.

This thorough philosophical study is followed by two very short articles. "The measuring accuracy of Tycho's large sextant" by Johann Wünsch investigates $O - C$ values of planet-star distances, as based on Tycho's observations as published in the Historia Coelestis (a compilation, which is also based on Tycho's manuscripts, and published in Regensburg in 1672). The result is that standard deviations are $80''$ for Saturn and $89''$ for Jupiter and Mars, an unexpectedly poor result in view of the general opinion that Tycho was famous for his precision work. "The astronomer Christoph Grienberger and the Galilei trial" by Franz Daxecker deals with a Jesuit astronomer who was both the disciple and successor of the mathematician-astronomer Christopher Clavius at the Collegium Romanum. While he was inclined to Galilei early on, he was forced to propagate Aristotelian doctrine. The brief article is very concise, but extremely tiresome to read (3 pages of pure text are embellished by 33 footnotes).

The 3-page paper on Grienberger is followed by a 50-page paper on Kordenbusch. Hans Gaab presents a thoroughly researched biography of the Nuremberg astronomer Georg Friedrich Kordenbusch (1731-1802). Educated as a doctor of medicine, he nevertheless became teacher of mathematics and physics at the Egidiengymnasium, attempted to revitalize the Nuremberg Observatory, and issued a second edition of Johann Leonard Rost's Astronomisches Handbuch (1718), the first compedium of astronomy written in German. He also edited and translated some French works (star maps, a description of globes, and an elementary book on cosmography).

Dietmar Fürst (Berlin), who has already published in this series three articles on the foundation of Königsberg Observatory, now presents the first part of the history of the Königsberg heliometer, an instrument which is famous since it was used by Bessel to determine the trigonometric parallax of 61 Cygni. Fürst informs us about the purchase and the putting in operation of the instrument, which was endangered by Fraunhofer's death and delayed by (unavoidably counterproductive?) administrative activities.

Reinhold Häfner, astronomer at Munich Observatory, and Rolf Riekher, optician in Berlin, have joined forces to present some pioneers of stellar spectroscopy in "the astro-spectroscopic researches by Fraunhofer and Lamont". It is well known that Fraunhofer observed the solar spectrum with high enough resolution to detect the Fraunhofer lines, but it is less known that he also observed bright planets and fixed stars at the Munich Observatiory, with the assistance of its director Soldner. A publication of 1823 gives only a short summary of this stellar work, and Fraunhofer's early death, three years later, was possibly the cause that no detailed article ever appeared. Interestingly, the second director of the observatory, Johann von Lamont, used the new large refractor (aperture: 28 cm, focal length about 5 m) to observe stellar spectra in 1836. The authors quote details from the observing book and present some sketches (whose reproduction is somewhat poor, and the reader is referred to Häfner's history of Munich Observatory, discussed elsewhere in this volume of JAD, to see a better colour reproduction of a spectral sketch of Lamont). The impact of these studies (or rather the lack of it) is also briefly reviewed.

Manfred Strumpf (Gotha) describes the difficulties in finding suitable directors for the Gotha Observatory – when the funds became smaller and the post thus became less and less attractive. Only the wealthy Nikolaus von Konkoly, a serious amateur and pioneer of astrophysics, applied even twice, but the administration was reluctant to seriously consider his offer. The result was that the chosen candidates were mainstream astronomers who used Gotha only as a step to foster their career and to find a better position as soon as possible.

Finally, Peter Brosche (Daun) and Endre Zsoldos (Budapest) trace the life of a hitherto elusive craftsman-scientist, Friedrich Schwab. He was chosen to be the mechanic of one of the Venus transit expeditions of the German Empire (1882 to Punta Arenas), became university mechanic in Klausenburg, and later teacher at the technical school in Ilmenau. He was an active observer of variable stars and also a specialist in endomological studies. The authors have located a grand-son and have put to light some valuable notes and photographs.

As can be seen from the summaries given above, this collection of essays deals mainly with historical events that occurred in Germany and neighboring countries, and focuses mainly on events in the 17th to 19th centuries. All contributions are written in German. The editors have taken care that generally a high standard was kept, although topic and realization make some articles more pleasant to read than others.

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