

Biographical Encyclopedia of Astronomers

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Cunitz [Cunitia, Cunitiae], Maria

Born Silesia, (Poland), circa 1604-1610

Died Pitschen (Byczyna, Poland), 22 or 24 August 1664

Maria Cunitz was one of the first modern women of science. Cunitz was the eldest daughter of Maria Schultz and Dr. Heinrich Cunitz, a learned physician. Denied any form of university education, Cunitz first received instruction from her father, and in 1630 married Dr. Elias von Löwen (Elie de Loewen, who died in 1661, a physician at Pitschen in Brieg, Silesia), who shared her interests in astronomy. Known as the "Silesian Pallas," Maria Cunitz did not confine her interests to Urania. By one tradition, she mastered seven languages (Hebrew, Greek, Latin, German, Polish, Italian, and French) and was widely known for her skills in painting, music, and poetry, not to mention the "masculine" pursuits of mathematics, medicine, and history. Private correspondence shows her interest in horoscopes and genealogy. The most noted woman astronomer since Hypatia, Cunitz's principal interest was astronomy. One tradition praises her for her efforts—she worked all night and slept all day—while another charges that her passion for astronomy distracted her from her domestic duties

As an astronomer, Cunitz is best remembered for her *Urania propitia* (1650). Shortly after the onset of the Thirty Years' War, Cunitz and her husband took refuge in the village of Luginitz, near the convent of Olobok (Posen), where she composed her work. Dedicated to Emperor Ferdinand III, the *Urania propitia* contains an important preface by her husband that disclaims his authorship, clearly attributing it to Cunitz. Following an introduction (in Latin and German), *Urania propitia* provides astronomical tables based on Johannes Kepler's *Rudolphine Tables*. Surprisingly, Cunitz's sole publication was not widely known, perhaps because few copies were printed. Few copies exist today

Following the appearance of the *Urania propitia*—and here her efforts are not widely recognized today—Cunitz made repeated attempts to join the Republic of Letters, successfully corresponding with the major astronomers of the day: Pierre Gassendi, Ismaël Boulliau, Johannes Hevel, and other advocates of the New Science, among them Pierre Desnoyers and J.-A. Portner. (Unpublished letters are found in Paris and Vienna.) The letters are telling. By tradition, such letters were addressed in the name of propriety—to the woman's husband. But learned communication between the sexes during this period (illustrated below) was in its infancy. Here reigning stereotypes required careful attention to protocol as well as extensive poetic padding; for example, one letter goes on at length about the freshness of the "spring air" and flowers "adorning the earth with varied and resplendent colors." But between the lines, other concerns were at work. In the same letter, there is a suggestion of something unnatural about women doing geometry. The concern is expressed in the play on words that nature "sports" with us. What does nature conceal behind those "natural curves" with "masculine minds"—natural jest or monstrous sport?

In the end, the Republic of Letters judged the *Urania propitia* positively. Cunitz was praised for extending Kepler's efforts and simplifying his calculative methods for eclipses and especially planetary latitudes. Simplicity aside, Boulliau judged Cunitz's tables less accurate than his own, particularly for Jupiter, Saturn, Mercury, and the Moon, and indeed, Cunitz's tables are seldom mentioned. A century later, Alexandre-Guy Pingré and J.-B. Delambre agreed, the latter concluding that Cunitz's tables did nothing for astronomy but disfigured Kepler in the

name of convenience. Always acerbic, Delambre ignored the fact that a number of post-Keplerian tables, the *Urania propitia* included, were more accurate than those of Kepler, at least for several planets. Cunitz published nothing further.

Robert Alan Hatch

Alternate name

Kunicia, Maria

Selected Reference

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