# Biographical Encyclopedia of Astronomers



## Apian, Peter

Born Leisnig, (Saxony, Germany), circa 1501

Died Ingolstadt, (Bavaria, Germany), 1552

Very little is known about uranographer Peter Apian's early life. Some confusion exists among the family records. The earliest unequivocal reference to his career is among the matriculation records of the University of Leipzig in 1516. It was at Leipzig that he Latinized his family surname from Bienewitz to Apianus (from the Latin word for "bee"), before subsequently moving to the University of Vienna. At Vienna, Apian studied with Georg Tannstetter, a renowned teacher of astronomy and former personal physician to Emperor Maximilian I, and he also produced his earliest known publication, a map of the world, printed in 1520

Edmund Halley's prediction that the comet he observed in 1682 would return again 76 years later is credited as the earliest recognition of cometary periodic orbits. A prior appearance of comet 1P/Halley in 1531, however, was also responsible for prompting a less well-remembered

A discovery concerning the nature of comets. In the earlier instance, Apian observed this comet over many nights and noted for the first time that, regardless of its position, a comet's tail always points away from the direction of the Sun. He described his observations in a printed astrological prognostication for the year 1532, in which he also included a woodcut illustration showing the comet's motion relative to the Sun. Observations of three more comets in later years allowed Apian to confirm this discovery; however, like virtually all of his contemporaries, he continued to believe that comets were a product of the Earth's upper atmosphere rather than independent celestial bodies.

Apian's 1520 world map was a forerunner to a long succession of publications that he produced throughout his life for both scholarly and general audiences. Most of these works appeared either from his brother's printshop in Landshut or from his own printshop in Ingolstadt, where he was appointed a professor of mathematics at the university in 1527 and subsequently taught for nearly 25 years. As a cartographer, Apian published further maps of the world and different European regions, as well as maps of the celestial constellations, and he wrote an introductory text on geography that became immensely popular. The latter work, simply entitled the *Cosmographicus Liber* (Cosmographical Book), went through dozens of printed editions in Latin, Dutch, French, and Spanish, especially in a form that was edited by the Dutch mathematician Gemma Frisius, and remained a staple textbook across Europe until the end of the 16th century

Apian produced other well-illustrated books in both Latin and German describing measurement techniques for a wide range of mathematical instruments, and he also wrote an instructional manual on commercial arithmetic. In addition, a 500-page volume reproducing ancient Roman inscriptions from across Europe, which he edited along with his fellow Ingolstadt professor Bartholomew Amantius, gives ample evidence of both the breadth of Apian's scholarly interests and the advanced technical capabilities of his printshop.

In the realm of astronomy, Apian wrote books on several instruments of his own design that could be used for timekeeping or for making celestial observations, and he published new editions of John of Holywood's *Sphere*, Georg Peurbach's *New Planetary Theories*, and Jabir ibn Aflah's *Nine Books on Astronomy*. Like his astronomical colleagues at many other

universities, Apian issued regular calendars and short astrological forecasts such as those that included his observations on comets

Apian's most famous publication, however, was the *Astronomicum Caesareum* (Imperial Astronomy), brought out in 1540 and dedicated to Emperor Charles V and his brother Ferdinand. A spectacular achievement of Renaissance printing, this volume allowed its user to reproduce the motions of all the celestial bodies through combinations of elaborately decorated rotating paper disks up to six layers deep and arranged on nonconcentric axes. For this work, Apian was rewarded by the emperor with 3,000 gold coins and elevated to membership among the hereditary nobility, as well as bestowed other honors and privileges. After his death, his son Philipp, one of 14 children with his wife Katharina Mosner, succeeded to Peter's mathematical chair at the University of Ingolstadt.

*Karl Galle*

**Alternate name**

Petrus Apianus

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