

# Biographical Encyclopedia of Astronomers

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Piazzi, Giuseppe

Born Ponte in Valtellina, (Graubünden, Switzerland), 16 July 1746

Died Naples, (Italy), 22 July 1826

Giuseppe Piazzi was the discoverer of the first minor planet, (1) Ceres, and published two important star catalogs. Piazzi was the ninth of ten children born to Bernardo Piazzi and his wife, Antonia Francesca Artaria. He came from a noble family; his father worked in a land registry office in the Villa di Tirano

In an age of limited career choices, Piazzi became a Theatine monk in Milan, which gave him the opportunity to broaden his knowledge of the classics and mathematics. He finished his novitiate at the abbey of San Antonio. Studying at Theatine colleges in Milan, Turin, Rome, and Genoa, Piazzi acquired a taste for mathematics and astronomy, earning a doctorate in these subjects. He then taught philosophy at Genoa, mathematics at the new University of Malta (1770–1773), and mathematics at Ravenna (1773–1779). In 1779, Piazzi was appointed professor of dogmatic theology in Rome.

It was not until 1780 that Piazzi found a permanent home when he accepted the chair of mathematics at the Academy of Palermo in Sicily. In 1787, Piazzi became a professor of astronomy and resolved to build one of Europe's finest observatories

He soon obtained a grant from Prince Tomaso d'Aquino Caramanico, Viceroy of Sicily. To equip his new institution and to facilitate communication with other European astronomers, Piazzi traveled to France and Great Britain. There, he accompanied a group of scientists who were determining the longitude difference between the Paris and Greenwich observatories. While in England, Piazzi became acquainted with Sir William Herschel and observed the solar eclipse of June 3, 1788, with Astronomer Royal Nevil Maskelyne. But the most substantial result of Piazzi's visit was the 5-foot vertical circle, a masterpiece of 18th-century technology, which was completed for him by instrument-maker Jesse Ramsden.

In 1789, Piazzi set up his observatory in the Santa Ninfa tower of the royal palace for the purpose of creating a new catalog of fixed stars, which he considered the basis of fundamental astronomy. The observatory at Palermo was the southernmost observatory in Europe and offered unparalleled access to the southern skies. Piazzi estimated the possible systematic errors of the Ramsden circle to be between 1 and 3 arcseconds. After a decade of laborious observations, he published his first catalog of 6,748 stars in 1803. With it, Piazzi was able to show that the proper motions of stars are not the exception but the rule. He also made famous the star 61 Cygni, whose abnormally large proper motion led him to call it the "flying star." The Institut de France awarded Piazzi's catalog the Lalande Prize in 1803. Baron János von Zach, editor of the *Monatliche Correspondenz* (the world's first astronomical journal), described Piazzi's catalog as "epochal."

Piazzi once described his own personality in a letter to a friend, Barnaba Oriani: "My temper is fiery, and even though I am older I cannot suppress it. I have formed many wrong judgments because of it, but even if I am wrong my heart is not bad." Piazzi remained youth-oriented, flamboyant, and inclined to quick judgment. His health was delicate and illness interrupted his observations many times

Even before the publication of his star catalog, Piazzi had become famous. On January 1, 1801, he discovered the "missing planet" between Mars and Jupiter, which he named Ceres Ferdinandea, after the patron goddess of Sicily and its King Ferdinand. While searching for a seventh-magnitude star in Taurus with Ramsden's circle, Piazzi spotted a somewhat fainter object not previously cataloged. He continued to observe the moving point of light until February 12, after which it became lost in twilight. He was criticized by astronomers all over Europe for not sharing news of his discovery sooner. Thereafter, the Göttingen mathematician Carl Gauss calculated the object's orbital elements using a new method that enabled it to be recovered at the end of the same year. Piazzi was subsequently offered the directorship of the Bologna Observatory but declined the invitation

Piazzi was anxious to create another star catalog, but for all his enthusiasm, his eyesight had begun to fail. By 1807, he had to entrust work on the new catalog to his assistant, Niccolò Cacciatore. In 1813, Piazzi published the second catalog of 7,646 stars; it too received a prize from the Institut de France.

During this period, Piazzi was charged by the government of Naples with renovating the system of weights and measures used in Sicily. In 1808, he published an essay on the subject and was given another annual pension by King Ferdinand for establishing the metric system. In turn, the Great Comet C/1811 F1 prompted him to publish his views on its nature. Piazzi supposed that comets were not formed along with the planets, but were produced from time to time in deep space, where they eventually dissipated.

In 1817, Piazzi was invited to Naples to examine the Capo-dimonte Observatory being constructed there. Though he at first declined the invitation to become its director, Piazzi finally agreed to become director-general of both the Naples Observatory and the Palermo Observatory. King Ferdinand gave him 93,500 lire worth of land, which he could sell or administer as he wished. Piazzi was also appointed president of the Royal Academy of Sciences in Naples; Cacciatore succeeded him as director of the Palermo Observatory. While at Naples, Piazzi introduced many innovations but sorely missed Palermo

Piazzi received an unusual honor from Admiral William Smyth, the son of an American-born loyalist who came to England after the Revolution. Smyth was also an astronomer and became acquainted with Piazzi. When the admiral's son was born in 1819, he was named Charles Piazzi Smyth and later became the Astronomer Royal for Scotland.

In 1825, Piazzi wrote, "It is a month since I have been in Naples, having left Palermo with regrets. Perhaps I will never see it again." The following year, he succumbed to cholera. In 1871, his native village remembered him by erecting a statue in Piazza Luini. Minor planet (1000) is named Piazzi in his honor.

*Clifford J. Cunningham*

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