Hypatia Encyclopedia Article

Hypatia

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Hypatia

Greek Philosopher and Mathematician
370–415 C.E.

A Byzantine church historian wrote that Hypatia was so learned in literature and science that she exceeded all philosophers of her time.

Hypatia of Alexandria was a leading mathematician and philosopher of the ancient era. Her father, Theon, was the last known head of the Museum at Alexandria, Egypt, an ancient center of classical learning. He tutored Hypatia and passed on to her his love of mathematics. Eventually her reputation as a mathematician exceeded and outlasted his.

Only fragments of Hypatia's work and a list of several titles of her treatises on mathematics remain. She translated and popularized the works of Greek mathematicians, including Diophantus's (third century) *Arithmetica,* a book noted for **integral solutions** to **linear equations**, and Apollonius's *Conic Sections.* Hypatia also edited the *Almagest,* an important work by the Greek astronomer and mathematician Claudius Ptolemy. She taught and wrote about a number of math topics on which further progress was not made until centuries later.

One of Hypatia's most eminent students, Synesius, wrote her letters asking her advice on scientific matters, and these letters are one of the key sources about her work. He credits her with detailed knowledge of the **astrolabe** and the **hydroscope**, as well as other devices used for studies in astronomy and physics. Historians living in her time praised her learning, as well as her beauty and character.

Hypatia's ties to a politician who disagreed with Alexandria's Christian bishop led to Hypatia's death in 415 C.E., when she was murdered by a mob of religious fanatics. Following Hypatia's murder, many of her students migrated to Athens, which by 420 C.E. acquired a considerable reputation in mathematics.

All of Hypatia's works are believed to have been lost in the seventh century, when the books of the library at Alexandria were burned by Arab invaders.

See Also

Apollonius of Perga.

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