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Hypatia of Alexandria

Hypatia of Alexandria is believed to be the first woman mathematician that we have knowledge on today. She came from a well known family of mathematicians, as her father was the famous mathematician and astronomer, Theon. Theon, at the time of Hypatia’s childhood, was the director of the University of Alexandria in Egypt. It is understood that Hypatia grew up in the Museum or University, following in the teachings of her father and studying mathematics and astronomy. People of her time proclaim to her beauty in all facets of life as in her beauty of mind, character, and body. She remains famous as the first female mathematician on record along with her abilities as a teacher and the nature of her death.(Richeson 74)

Hypatia practically lived in the museum at Alexandria because of her father. Historians note that, in her early life, her father taught her mathematics and science. Based on her characteristics, historians could tell that Hypatia was not satisfied simply by the teachings of her father and that she must have pursued education in the higher level institutions of Alexandria. With her education, she was able to assume control of the Neoplatonic School at Alexandria for roughly fifteen years. (Richeson 79) As the conductor of the school, Hypatia lectured not only on philosophy but also on the sciences like mathematics and astronomy. According to Suidas, the author of the Suda, an encyclopedia of the ancient Mediterranean world, Hypatia was well versed in these subjects as her intellect on them surpassed her fathers.

Hypatia’s philosophy was known as Neoplatonism. Neoplatonism arose out of the second century of the Christian era. It became the religion for the rebels against the old teaching of the Greek gods at Olympus. The Neoplatonist had a different view of the higher powers. They believed in one Supreme Being, which was the only higher power. Their idea was to lessen the separation that existed between man and the “Absolute.” The separation between man and the Absolute in Neoplatonism was divided into levels. First, there was Nous, also known as Thought, which was an image of the Absolute itself. Next was the triad of Souls, which was associated with purity compared to material things, which were associated to evil. The thought of this subject was that man would be capable of lifting himself to a level that allowed him to interact with the Absolute. Although there are no direct quotations of Hypatia, scholars can rest assured that she agreed the teachings of Neoplatonism. (Richeson 80)

Hypatia was also a teacher in mathematics. There are many accounts of Hypatia surpassing her father’s intellect in mathematics. The Suda, however, only attributes the authorship of three works to Hypatia in mathematics, Apollonius’ Conics, The Astronomical Canon, and Diophantus’ Arithmetic. All of these works were Commentaries by Hypatia on other mathematicians’ books and ideas. Apollonius’ Conics is almost lost altogether. Of its eight books only four have survived and the others remain lost including Hypatia’s commentary. The Astronomical Canon remains in the same situation as Apollonius’ Conics when addressing Hypatia’s commentary. There is clear evidence that she wrote a commentary of the Canon but so did her father, Theon, and it remains very difficult to decipher Hypatia’s commentary from her father’s and vice versa. Diophantus’ Arithmetic is where people can see Hypatia’s greatest contribution. The only six books that remain from the Arithmetic are directly taken from Hypatia’s commentary and it is said that the other seven are lost because Hypatia did not include them in her commentary. There are two equations that come directly from Hypatia. One asks for the solutions to a pair of equations, x - y = a and x^2 - y^2 = (x - y) + b where a, b are known. The second equation is quite similar and asks for the solution to a pair of equations, x – y =a and x^2 – y^2 = m(x - y) + b where a, m, and b are known. It is interesting to see how few facts are known about Hypatia’s mathematical career. Historians have reason to believe that she was influential in her teachings but only some of their speculation is known to be fact. But either way some people still say, “She was in fact the greatest mathematician then living in the Greco-Roman World.” (Deakin 238-241) Because of her successes in mathematics and philosophy, she taught many well known men of her time. Among her many students were, Troillius, the teacher of the historian Socrates, Euoptius, the eventual bishop of Tolemais after his brother’s death, Herocles, Hypatia’s successor at her Platonic School, and Hesychius, one of the most famous Greek grammarians. The future success of her students speaks volumes to her abilities as a teacher. (Richeson 80)

The second significant part of her life was her death. In 412 the bishop of Alexandria died and was replaced by his nephew, Cyril, a week later. Quickly, Cyril began to enforce the edicts of Theodosius I, which entailed the destruction of the pagans. These edicts caused much hysteria around Alexandria and further frustrated the Roman Governor, Orestes, who was the only man who stood in the way of Cyril attempting to take full control of Alexandria. Many Christians at the time felt that Hypatia was to blame because of her intimacy with Orestes. The Christians thought that it was her fault that there was a lack of agreement between Cyril and Orestes. So, The Christians started a conspiracy against her and ultimately abducted her and killed her by stripping her and tearing her body into pieces. (Richeson 76) This is the common view of what happened to Hypatia but there also were several other speculations as to the motives behind her execution. Some say that Cyril ordered Hypatia’s head, while others thought Cyril was envious of her vast intellect and that one day he saw many people coming and leaving her house paying respect to her, so he ordered her killing. Regardless of which speculation is true the large percent of people agree that the Christian people killed her because of her relationships and that it was Cyril who ordered her death. (Richeson 77)

Hypatia was involved in the old pagan religion of the time, which played a major role in her death. At the time, the Christian church was on a crusade against the pagan society of Alexandria. Hypatia’s philosophical views along with her relationship with Orestes identified her as the main pagan target of the struggle between Christians and non-Christians. There are two distinct stories that tell of her death. The first was that she was mobbed by monks that were Christian supporters of Cyril, and the other being she was killed by an Alexandrian mob headed by the reader Peter. Regardless of which story it was clearly her intellect and pagan views threatened the Christian church, which resulted in her assassination.

Hypatia of Alexandria was a beautiful woman. She had beauty of mind as she was well respected by her students and peers as a teacher of mathematics and philosophy. Her philosophy was Neoplatonism but she also taught the works of Plato and Aristotle. Many of her students grew to become famous men of the Greek world, which is a tribute to her gifts as a teacher. She had beauty of body as she was sought after by many suitors, yet she remained a pure virgin. People would visit her to praise her for both her intellect and her beauty. Her beauty led not only to her success but also to her destruction. Bishop Cyril did not approve of all the praise Hypatia was given. His Christian followers disapproved of her relationship to the pagans, her affiliation with Orestes, the only man that stood in Cyril’s way of anarchy, and her vast intellect. So, ultimately Hypatia was kidnapped and viciously murdered at the hand of the Bishop Cyril.

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Hypatia the martyr of the Pagans and feminist movement

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