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Ipazia, la Vera Storia

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The time is now past when the figure of Hypatia could be molded to fit into a preconceived scheme of the fate of ancient mathematics, women in mathematics, or the role of religion in the history of science, because sources exist and they speak clearly to us about her. The Greek manuscript 28.18, conserved in the Laurentian Library in Florence, offers the image of a learned woman poring over Greek mathematics texts (in the title of the third book of Ptolemy's *Almagest*, within the comment by Theon of Alexandria, we find the wording "edition revised by my daughter, the philosopher Hypatia"); through the tradition of the Orthodox church the echo has come down to us of the general esteem and authoritativeness in which this teacher was held in her native city Alexandria; and we have the testimony of the love and respect of her pupils, including the nobleman Synesius of Cyrene, who later became a bishop. "We can know about Hypatia" is the fundamental message running through the book by Silvia Ronchey, professor of classical philology and Byzantine civilization at the University of Roma Tre. As a teacher, Hypatia succeeded in involving—almost "bewitching" as it were—not only those who knew her in her lifetime but many others during the 16 centuries that have passed since her violent death in 415 AD. The constant fascination she has exerted has to some extent clouded over her real figure, owing to the medley of rumors aimed at interpreting her destiny as a confirmation of various theories on the course of intellectual history. The extraordinary explosion of her literary legend has even become slightly asphyxiating and has partly betrayed the facts in a way that doesn't stand up to careful analysis, as the Polish historian Maria Dzielska pointed out in her essay (Dzielska 1995). As Ronchey stresses, both an interpretation of Hypatia as a martyr of a radical conflict between Christianity and the Greek *paideia*, and a consideration of her death as a consequence of the ecclesiastical persecution of a rationalist scientist, are factual distortions. Indeed, such distortions are commonly found in many history-of-mathematics textbooks in which the few lines customarily dedicated to Hypatia serve the purpose of bringing to an end, amid admiration and dismay, the glorious period of Greek mathematics—a complex episode in the history of science whose accurate description is often laid aside and reduced to a spectacular murder and destruction of books, the blame for which is laid, according to the standard phrase appearing in dozens of books, on "a fanatical Christian mob."

The religious life in Alexandria was violent, indeed. The people of Alexandria similarly slew two of their bishops: George in 361 and Proterius in 457. However, most often in

textbooks of the history of mathematics, the cultural and religious context of the city of Alexandria is not even roughly outlined—and yet what would Hypatia have been without Alexandria? Ronchey therefore urges mathematicians and historians of science to engage in better-informed writing about the complex interactions between science, philosophy, religion, and politics during that particular historical period. She also advises against a preconceived gender studies approach overemphasizing an alleged concealing of Hypatia's achievements by malevolent males. In her opinion, a more careful appreciation of Hypatia's intellectual legacy as a part of our common heritage would be an important contribution to reinstating female thinking in the history of culture at large—and, let me add, also to integrating the history of mathematics in the general history of culture.

Ronchey's book sets out to participate in such an undertaking, addressing a wide reading public in an appealing style based on exhaustive documentation ranging from ancient sources to later historical-literary tradition concerning Hypatia to the most recent research on late antiquity and the world of Byzantium. The cultural life of the educated groups and the activity of the Neoplatonists in Athens and Alexandria are not necessarily doomed to be the object of study reserved for philologists venturing into centuries of decadence and "byzantinism" in the pejorative sense of the term. Quite the contrary. A book such as *City and School in late antique Athens and Alexandria* (Watts 2008) successfully brings to life the vibrant atmosphere of centuries rich in emotions and intellectual undertakings. Ronchey includes in her investigation the ongoing debate on Hypatia's mathematical work (Deakin 2007). The documentation on which her book is based takes up more than one third of its volume and is set out in such a way as to support the discourse without interrupting it. The historical investigation is divided into three parts (clarifying the facts, betraying the facts, interpreting the facts) and has the ambition of establishing a historical truth that is also a judicial truth (because the core of the matter is a woman's murder). Nevertheless it is precisely Ronchey's analysis in the second part that reconfirms Hans-Georg Gadamer's illuminating statement that there cannot be human understanding without prejudice (Gadamer 1975). All the main figures and witnesses are examined and assessed, in particular, Cyril of Alexandria. The book analyzes the relations between Eastern and Western traditions of the Christian Church in Hypatia's times, and explains how Cyril's political-religious project was quite the opposite of the project dominant in the Byzantine world in which Hypatia may be most naturally situated.

The figure of Hypatia stands out clearly among the numerous Platonist, Neoplatonist, and Christian "philosophizing women" in the ancient and late antique world, devoted above all to an understanding of the divine. "The intellectual nucleus of which she is incorrectly viewed as the 'last' exponent is actually that from which for eleven centuries the brightest flower of Byzantine culture was to blossom [...] Through them, the *philosophia* of Hypatia, Synesius, and ancient, more or less eclectic, *philosophes* of Alexandria was to come down to our Humanism and the

Renaissance” (pp. 191–192). The initiatory Neoplatonic tradition to which she belonged was permeated with Pythagoreanism and astrological wisdom, and thus also with technical knowledge of arithmetic and geometry. Ronchey convincingly describes Hypatia as a priestess and theurgist, and therefore both as a public teacher (of mathematics) and as a private teacher (of the mysteries of the divine). On the other hand, as Synesius writes in his epistolary, “geometry is a sacred matter.”

The Byzantine scholar Ronchey reminds us of the ties between mathematical thought, theology, and the knowledge of the divine. Attempts are sometimes made to ignore this link when considering figures such as Galileo and Newton, who were actually “lay theologians,” as Amos Funkenstein called them (Funkenstein 1986). The link between scientific and religious speculation in the history of mathematics can be traced back to Pythagoreans, and it reaches down to the twentieth century as far as, for instance, the work of the Russian priest and scholar Pavel Alexandrovich Florensky (Graham and Kantor 2009; see also some essays in Emmer 2010). Such instances highlight the primordial role of mathematics in culture.

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