

# Biographical Encyclopedia of Astronomers

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Clerke, Agnes Mary

Born Skibbereen, Co. Cork, Ireland, 10 February 1842

Died London, England, 20 January 1907

As a historian and commentator on science, Agnes Clerke communicated with such clarity and understanding that she raised substantial questions of value to ongoing research in astronomy and astrophysics. Clerke was the second child and younger daughter of John William Clerke, a bank manager who later became a court registrar, and his wife Catherine Mary (*née* Deasy). The father, a graduate of Trinity College, Dublin, was a scholarly man who continued throughout life to pursue his interest in the sciences, while her mother was an intellectual woman with a talent for music

Agnes and her sister Ellen were educated entirely at home by their parents, who brought them to an academic level unusual for women of that generation. Astronomy and music were Agnes's favorite subjects. Under her father's tutelage, she worked her way through a substantial library of astronomical books. Later, her brother Aubrey, who excelled in mathematics and physics at university, introduced her to more advanced topics.

When Agnes was 19, the family moved to Dublin. After six years there, the Clerke sisters spent ten years in Italy, principally in Florence, where they continued their studies and became fluent linguists. In 1877, the family was reunited and settled permanently in London

In that year, Clerke, at the age of 35, commenced her career as a professional writer when she published the first of her anonymous articles in the erudite *Edinburgh Review*. Her name soon became known through her signed scientific biographies of Galileo Galilei, Pierre de Laplace, and other noteworthy entries in the *Encyclopedia Britannica*, begun in 1879. She also began to write regularly on astronomy for *Nature*, *The Observatory*, and *Knowledge*.

Through her London literary connections, Clerke made the acquaintance of Joseph Norman Lockyer and, by correspondence, of Edward Holden, director of Lick Observatory in California. With encouragement from both Lockyer and Holden, she tackled a history of the "New Astronomy" (or astrophysics), which resulted in the work for which she is best known: *A Popular History of Astronomy during the Nineteenth Century*, published in 1885. The *History* was an immediate success for its usefulness to the professional astronomer and its appeal to the general reader. It brought her a wide circle of astronomer friends on whose behalf she could be an influential propagandist, such as William and Margaret Huggins and David Gill. The *History* was revised three times, in four editions, during its author's lifetime. Its continued popularity to the present day rests in its thoroughness and the reliability of its dates, data, and details

In 1888, Clerke spent three months at the Royal Observatory, Cape of Good Hope, as a guest of its director, David Gill. There she had the opportunity—the only one in her entire career—of taking part in actual astronomical observations. The outcome was her second major book, *The System of the Stars* (1890), which strongly advocated a Universe consisting of only one galaxy—our Milky Way, the most favored model at that time. It was not until several decades after Clerke's death that the spectroscopic explorations of Vesto Slipher and the photographic surveys initiated by Edwin Hubble convincingly resolved the debate over the nature of galaxies

Clerke's third major book, *Problems in Astrophysics* (1903), attempted to identify unresolved questions, especially in stellar spectroscopy, and to suggest projects that might solve them. Many of her contemporaries deemed this book her most impressive. Nevertheless, Clerke did have her critics, notably in the journal *Nature*, which found fault with her as a bystander with no direct experience of observational or laboratory procedures.

Clerke's 150 biographical entries in the original volumes of the *Dictionary of National Biography* constitute a valuable contribution to learning. She also took a keen interest in the "new physics" of radioactivity and allied phenomena at the end of the 19th century. Some of her brilliant essays on these and other topics, published in the *Edinburgh Review*, being unsigned, have not been universally recognized as hers.

Clerke died after a brief illness at her London home. She is buried in the family plot in Brompton Cemetery, London.

Mary T. Brück

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