

6 Books



To celebrate International Womens Day, we have taken six books from the Institute library, all produced by women astronomers, they span over two hundred years, and show the diversity and depth of womens contribution to Astronomy. We can also learn a little about their lives and how they were inspired in their work.

Caroline Lucretia Herschel (1750-1848) - star cataloguer, comet discoverer

EDUCATION: largely self educated.

INSPIRATION: her brother William Herschel.

WORK: comet discoveries, cataloguing of stars and nebulas.

HONOURS: honorary member of the Royal Astronomical Society, gold medal from King of Prussia, asteroid 'Lucretia' named after her.

BOOK: Catalogue of stars : taken from Mr. Flamsteed's observations / with an index ... [and] a collection of errata by Carolina Herschel ; with introductory and explanatory remarks by William Herschel. London : Royal Society, 1798.

- *Improved the cataloguing of stars observed.*
- *by John Flamsteed the first Astronomer Royal.*
- *Taking her twenty months work.*

Mary Somerville (1780-1872) - mathematician

EDUCATION: home and a school in Edinburgh.

INSPIRATION: came to astronomy through love of maths.

WORK: some experiments on magnetism, but mainly mathematical, translated and expounded Pierre-Simon Laplace's 'Mechanique Celeste'

HONOURS: Oxford College, lunar crater and an asteroid named after her. Appears on a Scottish banknote.

BOOK: Mechanism of the heavens / by Mrs. [Mary] Somerville. London : John Murray, 1831.

- *The book made her famous.*
- *Became a set text for Cambridge undergraduates.*
- *Led to her receiving a civil pension of £200 P.A.*

Agnes Mary Clerke (1842-1907) - historian of astronomy

EDUCATION: home schooled.

INSPIRATION: used her fathers telescope.

WORK: mainly as a writer of history of astronomy, a founder of the British Astronomical Association.

HONOURS: honorary member of Royal Astronomical Society, a lunar crater is named after her.

BOOK: A popular history of astronomy during the nineteenth century / by Agnes M. Clerke. Edinburgh : A. & C. Black, 1885.

- *Went through at least 4 editions.*
- *Encouraged the use of the spectroscope.*



Caroline and her brother making a telescope mirror. Welcome Gallery.



Photograph of Mary Teresa Bruck, from *Royal Observatory Edinburgh*.

Margaret Lindsay Huggins (1848-1915) - artist, photographer, spectroscopist

EDUCATION: largely self educated.

INSPIRATION: read an article about the spectroscope.

WORK: astronomical photography particularly of spectra.

HONOURS: memorial in St. Pauls Cathedral.

BOOK: The scientific papers of Sir William Huggins / edited by Sir William Huggins and Lady Huggins.
London : William Wesley, 1909.

- *Her artistic talents and distinctive handwriting can be seen in this book.*

Cecilia Payne-Gaposchkin (1900-1979) - astrophysicist

EDUCATION: St. Paul's Girls School, Newnham College, Cambridge.

INSPIRATION: Public talk by Sir Arthur Eddington (Director of the Cambridge Observatory).

WORK: responsible for identifying hydrogen as the most common element in the universe.

HONOURS: an asteroid and a volcano on Venus are named after her.

BOOK: Stellar atmospheres : a contribution to the observational study of high temperature in the reversing layers of stars / by Cecilia H. Payne.

Cambridge, Mass : The Harvard Observatory, 1925.

- *Astronomer Otto Struve described her work as "the most brilliant PhD thesis ever written in astronomy".*

Mary Teresa Bruck (1925-2008) - educator, populariser

EDUCATION: Convent school, University College Dublin, University of Edinburgh.

INSPIRATION: possibly physics at school.

WORK: studies of the interstellar medium and Magellanic Clouds, in later life she published histories of women astronomers.

HONOURS: Lorimer Medal. Named buildings at University College Dublin, University of Edinburgh.

BOOK: The night sky / by Mary T. Bruck, Royal Observatory, Edinburgh ; with illustrations by Roberts Ayton.
Loughborough : Ladybird Books, 1965.

- *Note the increase in the number of known moons of Jupiter (page 20).*