

# New audiences for old books

## Using astronomy archives in school outreach activities

Sian Prosser · Royal Astronomical Society · [librarian@ras.org.uk](mailto:librarian@ras.org.uk)

The Royal Astronomical Society promotes the study of astronomy and geophysics and has recently committed to increasing public engagement with new audiences. The librarian has worked with the outreach and education officer to put the scientific archives of the Society at the heart of a primary school workshop telling the story of Caroline Herschel.



In 1785 Caroline Herschel became the first woman in Britain to be paid for scientific work. She received a salary from King George III for assisting her brother William, which is the work for which she is most often credited, but she made significant contributions of her own to astronomy, discovering eight comets and many more nebulae. In 1828 she was awarded the Gold Medal of the Royal Astronomical Society for her

'unparalleled' cataloguing work, and she and Mary Somerville became the first women to be made honorary members of the Society in 1835. These were remarkable achievements for a woman who was born in Hanover in 1750 and brought up as her family's unpaid servant before William Herschel arranged for her to live with him in Bath, England, in 1772, where she initially trained as a musician before being drawn into full-time work as her brother's assistant. Caroline Herschel's observation notebooks are now part of the Royal Astronomical Society archive.



An actor playing the role of Caroline

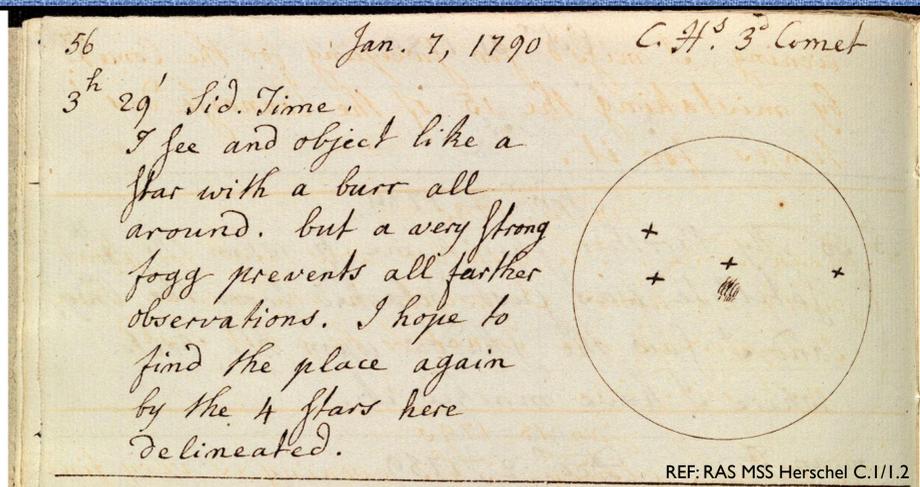


Primary sources and hands-on activities in the library



Tour of the solar system and comet-making demonstration in the lecture theatre

Aimed at students aged 9-11, the visit falls into three parts, each lasting 30 minutes. The RAS building is not large, but it's possible to accommodate a whole year by running all three sessions simultaneously as a carousel of activities on each floor of the building. The outreach officer takes the students on a tour of the solar system, finishing with a dry-ice comet-making demonstration. The students have an audience with Caroline Herschel (played by an actor from Spectrum Drama) who narrates her journey from domestic drudge to musician and scientist. In the library the children look at drawings of William Herschel's telescope, and examine one of the speculum mirrors he made, before turning to Caroline Herschel's observation notebooks.

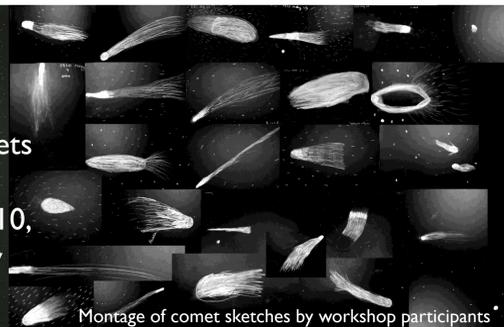


REF: RAS MSS Herschel C.1/1.2

The image above shows Caroline's first sighting of what would turn out to be her third comet. The children find her handwriting fairly easy to read out loud, in spite of unfamiliar letters and words. In a group we interpret the text and the image, for example, why is the comet sketched in a circle, and what is the impact of weather on astronomical observations? We then read the rest of the notebook in which Caroline Herschel records the progress of the celestial object, firming up her hypothesis that it is indeed a comet.

RAS Photographs 297 (Halley's Comet and Venus, Johannesburg 1910)

The children then sketch comets inspired by photographs of Halley's comet dating from 1910, learning more about cometary cycles in the process.



Montage of comet sketches by workshop participants

### Feedback

"The activities were hands-on and educational and varied in objective so the children were engaged and learning all the time," according to a teacher. So far over 250 children have taken part in the workshops.

### Next steps

- Make the library activity more challenging by asking children to plot the course of Caroline Herschel's 3<sup>rd</sup> comet on paper.
- Develop similar workshops based on other astronomers.

[www.ras.org.uk](http://www.ras.org.uk)



The RAS is grateful for support from ESERO UK