

REPORT

A grangerized copy of Weld's *History of the Royal Society*

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Charles Richard Weld's two-volume account of the Royal Society published in 1848 has the title-page boast of being 'compiled from authentic documents'.¹ The Society owns one copy of the book in which this is literally true. The edition was grangerized by the writer and collector Alexander Meyrick Broadley (1847–1916),² who added much illustrative material and several important manuscript items to Weld's text. The books were initially owned by Ludwig Mond FRS (1839–1909), and according to an inscription by his son Robert Ludwig Mond FRS (1867–1938) they were intended for presentation to the Society. This eventually happened in late 1959, the donor being the politician Harry Nathan (1889–1963), Lord Nathan of Churt.³ Owing to the nature of their content, these volumes have now been transferred to the Society's archive as MS/849 and will be catalogued in detail.

Broadley's treatment of Weld's original has expanded the work into a multi-volume set. In an article published in 1912, Broadley wrote that

it occurred to the present writer some years since to extend this work into eight volumes by the addition of autograph letters and other illustrative matter. In doing this a great deal of material came to hand which may one day prove useful when the fifth, and let us hope the authoritative 'History of the Royal Society' comes to be written.⁴

The year 1912 was the occasion of the Society's 250th anniversary (from the award of the Society's charter of 1662), which prompted the article if not the collection. Broadley was already well known for his acquisitions of manuscript material. Two years earlier his book *Chats on autographs* described (for the benefit of the prospective hobbyist) his methods of accumulating original letters and documents, often from dealers in France.⁵ Scientific manuscripts barely rate a mention in Broadley's book, and only a few of the letters inserted into his special edition of Weld are cited there. It is an inexplicable omission because many of the previous collectors cited by Broadley, and whom he clearly admired, were Fellows of the Royal Society.⁶

In Broadley's hands, Weld's *History* was extra-illustrated with many prints of persons and places associated with the Society. More than 350 portraits were added to the book, including some well-known cartoons by the likes of James Gillray (1756–1815) (figure 1) and William Hogarth (1697–1764) (figure 2). These fit well with the Society's existing portraiture and help to broaden the scope of the collection from being exclusively concerned with the Fellowship to including other, less obviously scientific, historical figures. Because Weld mentions Matthew Hopkins, for example, Broadley supplies an image of the Witchfinder General. The manuscript insertions are more precisely chosen and comprise 40 letters and documents with associations ranging from Isaac Newton to John Tyndall (figure 3).

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Figure 1. 'Scientific researches!' Gillray's satirical print (1802) of a Royal Institution lecture, featuring Humphry Davy and Benjamin, Count Rumford.

The Society's archives contain several types of tribute or memorial volumes combining text, manuscript and portraiture. These are generally associated with individuals, most importantly Charles Turnor's astonishingly ornate *Newtoniana*⁷ compiled in the mid-nineteenth century. Broadley's compendium is unusual in this context in that it relies on an existing book-template, and this has partly influenced the selection of autograph material that the collector has pasted in. Because Weld, in true nineteenth-century style, habitually refers to well-known narratives of science, the effect is to build a mini-collection of iconic manuscripts. For example, when Weld's text refers to a specific event (such as the miners' safety lamp dispute between George Stephenson and Humphry Davy) the specimen letter takes up the theme. The rest of this report will describe, in chronological order, a selection of key letters from the volumes.

JOHN AUBREY AND THOMAS HOBBS

In John Britton's *Memoir of John Aubrey, FRS*⁸ most of a letter from the author of *Brief Lives* to his friend Thomas Hobbes in 1661 is quoted, although Britton could not source the original text. It has survived in Broadley's volumes and describes Aubrey's recent visit to Ireland with some comments ('the animosities between the English and Irish are very great'). The letter also notes Hobbes's sitting for a portrait at Aubrey's request, most probably the painting by Jan Baptist Gaspars (1620?-91). Aubrey presented this picture to the Royal Society in 1670 and therefore Broadley's inclusion of such a provenance letter in the grangerized *History* is particularly apt.⁹



Figure 2. Royal Society secretary Cromwell Mortimer depicted by William Hogarth, engraved by Rigou, c.1745.

MARTIN FOLKES AND EMANUEL MENDES DA COSTA

The Society's President Martin Folkes gives a brief description of the recently constructed Goodwood shell grotto as 'a wild receptacle for fossils ... interspersed with corals and other marine productions' in a letter of August 1747.¹⁰ This document is known from a poorly



Figure 3. Parchment slip signed by Isaac Newton, 1697. Used by A. M. Broadley as a frontispiece to the second volume of his set of Weld's history.

transcribed version reproduced in Nichols's *Illustrations of the literary history of the eighteenth century*, and this is widely referred to because Folkes's correspondent was the talented but troubled naturalist Mendes da Costa (1717–91).¹¹ Da Costa was elected to the Fellowship in late 1747, and the letter is a good example of Folkes's concern to improve da Costa's social standing and provide him with business opportunities (da Costa ran a mineral and fossil dealership). Folkes discusses da Costa's Jewish identity with the leaden humour that is just tolerable in an important patron, here inviting him to attend and advise the Duke of Richmond.

Da Costa thanked Folkes by sending him specimens of Derbyshire rhombic spar from his summer tour in the county. The presentation letter appears near Weld's reference to a geological soir e attended by both men.¹² Historians' later interest in da Costa for his embezzlement of Royal Society funds is absent from Weld's *History*.

JOSEPH BANKS AND CAPTAIN JAMES COOK

There are three items relating to Sir Joseph Banks in the Broadley volumes, the most interesting of which is an extended letter written by Charles Blagden to his friend and patron in 1781. This letter was written by the future Royal Society Secretary while a serving medical officer in Plymouth and as a means of stemming the boredom of military life. Blagden clearly hankered after London society, managing to fill seven closely written sheets in discussing topics ranging from local rumours of enemy fleet movements in the English Channel to newspaper accounts of John Hunter's dissection of a whale that had strayed into the River Thames.¹³ His main subject is the posthumous reputation of Captain James Cook (1728–79). Blagden alerts Banks to two articles in the *G ttingen Magazine*, which he attributes to its editors.¹⁴ The purpose of one was to 'insinuate that the medal presented by the RS to Captn Cook ought to have been given to old Forster'; that is, the Copley Medal for 1776 awarded to James Cook for his *Philosophical Transactions* paper on maintaining health aboard the *Resolution*. Relations between the Forsters, father and son, and their Captain were permanently soured in the process of writing up the results of Cook's second great voyage.

The Cook extract letter appears in Weld's section on the navigator. Of the other Banks material, there is a particularly obsequious letter by Benjamin Thompson FRS (1753–1814) on the subject of the Elector of Bavaria's election to the Royal Society, again referred to directly by Weld.¹⁵

WILLIAM HERSCHEL'S CELEBRATED AUTHOR

Broadley's volumes contain a letter by each of the male Herschels. John Herschel's letter of 25 March 1839 to John Davies is not listed in the published Calendar.¹⁶ It contains an extended discussion of observatory design based on plans to erect buildings in Manchester. William's letter refers to his researches of 1800 into radiant heat. These appeared in a sequence of *Philosophical Transactions* papers commencing with 'Investigation of the powers of the prismatic colours to heat and illuminate objects ...' written on 8 March 1800. The third paper, read in May 1800, begins with a discussion of the existing terminology of heat and teasingly notes that 'None of these descriptive appellations ... completely answered my purpose. I might, as in the preceding papers, have used the name radiant heat, which has been introduced by a celebrated author ...'¹⁷ Martin Hilbert provisionally identifies this individual as Karl Wilhelm Scheele (1726–86)¹⁸ but Herschel's letter makes it clear that the suggestion came from an unidentified living correspondent.

HUMPHRY DAVY AND THE SAFETY LAMP

In Frank James's recent, comprehensive account of the scientific research and surviving literature surrounding the safety lamp,¹⁹ Humphry Davy's 'piracy' letter to the Tyneside mine-owner John Buddle is cited from the printed version in Broadley's book *Chats on autographs*.²⁰ The original is pasted into the grangerized book in support of Weld's official Royal Society account of the dispute with George Stephenson. Davy's letter of February 1817 followed the publication of George Stephenson's well-known descriptive pamphlet. It simultaneously charges that 'He [Stephenson] had heard of my researches, safety tubes & apertures: no one could have established his piracy so effectively as himself' while providing a chronology for Davy's own visit to the northeast of England in 1815 which would prevent the charge that he had prior knowledge of the engineer's experiments at Killingworth Colliery.²¹

CHARLES BABBAGE'S DIFFERENCE ENGINE

Another famously disgruntled pair of technologists features in a letter from Charles Babbage to Richard Penn FRS (1784–1863)²² from the crucial month of May 1829, when the machinery manufacturer Joseph Clement halted the production of parts for Babbage's difference engine. The issue between the men was money, as is made clear by a supplementary draft note setting out questions to be settled with Clement on the ownership of tools and parts. The main letter notes both the Duke of Wellington's continued interest in the project (the Prime Minister had requested the involvement of the Royal Society in assessing Babbage's progress in the previous year) and the mediation of the engineers Bryan Donkin and George Rennie. Unlike the Davy letter noted above, Babbage's letter stands alone; Davy suffers the indignity of sharing space with a note from his great rival, Stephenson.²³

NOTES

- 1 Charles Richard Weld, *A history of the Royal Society, with memoirs of the Presidents. Compiled from authentic documents* (John W. Parker, London, 1848).
- 2 For a short biography of Broadley, see *Who was Who 1916–1928* (A. & C. Black, London, 1962) vol. 2, pp. 127–128. Other examples of Broadley's work in grangerized books can be found; for

- example, *Annals of the Haymarket* and *Some social, political and literary landmarks of Bath and Piccadilly, 1711–1911* are in the City of Westminster Archive Centre, *Napoleon in caricature* is in the Bodleian Library, Oxford, and *The true story of the Chevalier d'Eon* is at the Brotherton Library, Leeds.
- 3 RS Council Minutes, vol. 20, p. 338 (1957–61).
- 4 A. M. Broadley, 'The British immortals, 1662–1912', *The Outlook*, Saturday, 13 July 1912. Proof sheet in MS/849/1.
- 5 A. M. Broadley, *Chats on autographs* (T. Fisher Unwin, London, 1910).
- 6 Specifically, letters by Davy (see note 11 below) and Brougham. Including John Evelyn, Robert and Edward Harley, Hans Sloane, Peter Le Neve and James West, *ibid.*, pp. 35–36.
- 7 Royal Society Manuscript MS/648.
- 8 John Britton, *Memoir of John Aubrey, F.R.S. embracing his auto-biographical sketches ...* (J. B. Nichols and Son, London, 1845), pp. 37–38. Coincidentally, Britton also grangerized books and included Aubrey material.
- 9 MS/849/2 pp. 246–247 J. Aubrey to T. Hobbes, 30 August 1661.
- 10 MS/849/4 pp. 478–479 M. Folkes to E. Mendes da Costa, 9 August 1747.
- 11 Cited in essays including G. S. Rousseau and David Haycock, 'The Jew of Crane Court: Emanuel Mendes da Costa (1717–91), natural history and natural excess', *Hist. Sci.* **38**, 127–170 (2000), and G. Cantor, 'The rise and fall of Emanuel Mendes da Costa: a severe case of "the Philosophical Dropsy"?'', *Engl. Historical Rev.* **126** (467), 584–603 (June 2001).
- 12 MS/849/4 pp. 526–527 E. Mendes da Costa to M. Folkes, 14 September 1747.
- 13 MS/849/6 pp. 112–113 C. Blagden to Sir J. Banks, 9 September 1781.
- 14 Georg Forster (1754–1794) and Georg Christoph Lichtenberg FRS (1744–1799) edited the *Göttingisches Magazin der Wissenschaft und Literatur*.
- 15 MS/849/7 pp. 210–211 B. Thompson to Sir J. Banks, 6 July 1784.
- 16 Michael J. Crowe (ed.) *A calendar of the correspondence of Sir John Herschel* (Cambridge University Press, 1998). The letter is MS/849/6 pp. 192–193 J. F. W. Herschel to J. Davies, 28 April 1839.
- 17 William Herschel, 'Experiments on the Solar, and on the Terrestrial Rays That Occasion Heat ...' *Phil. Trans. R. Soc.* **90**, 293–326 (1800). William Herschel's letter is at MS/849/6 pp. 146–147.
- 18 Martin Hilbert, 'Herschel's investigation of the nature of radiant heat: the limitations of experiment', *Ann. Sci.* **56**, 357–378 (1999).
- 19 F. A. J. L. James, 'How big is a hole?: the problems of the practical application of science in the invention of the miners' safety lamp by Humphry Davy and George Stephenson in late Regency England', *Trans. Newcomen Soc.* **75**, 175–227 (2005).
- 20 Broadley, *op. cit.* (note 5), pp. 97–98.
- 21 MS/849/7 pp. 288–289 H. Davy to J. Buddle, 6 February 1817.
- 22 MS/849/6 pp. 116–117 C. Babbage to R. Penn, 4 May 1829.
- 23 MS/849/7 pp. 288–289 G. Stephenson to T. Brassey, 14 March 1839.