

J. B. Reade's letters to Jabez Hogg - Reade's last days

R. DEREK WOOD

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Introducing the Rev. Joseph Bancroft Reade, FRS (1801-1870)

As a vicar of the Church of England, J. B. Reade served his communities at the churches of Stone, Buckinghamshire, from 1839 until 1859, then for four years at Ellesborough, also in Bucks, before becoming rector of Bishopsbourne, near Canterbury, Kent, from 1862 until his death in December 1870.

In 1864 he signed 'The Declaration of Students of the Natural and Physical Sciences' that "deplore that Natural Science should be looked upon with suspicion ... merely on account of the unadvised manner in which some are placing it in opposition to Holy Writ". Of course where religion is concerned that Declaration could be interpreted in contradictory ways, but there can be little doubt that J. B. Reade followed in the footsteps of one of his mother's family, William Paley, the author of *Natural Theology* (1802). For Reade was intensely interested in, and took an active part in, many aspects of science.

He was a life member of the British Association for the Advancement of Science from its beginning in 1831. He had a small observatory and telescope at Stone, carrying out heavenly observations (with a particular interest in comets) throughout his life, although his publications in Astronomy were not extensive.

His first scientific paper, 'Observations and experiments on the solar rays that occasion heat', was read at the Royal Society in December 1836 and he was elected FRS in 1838. He was greatly interested in the design of various optical devices - eyepieces and condensers - of the microscope. His 'Observations of some new organic remains in the flint of chalk', published in November 1838, contains the first microscopic illustrations (from drawings) of planktonic dinoflagellate microfossils, then named

Xanthidia. Quite obviously Reade was technically adept with microscope optics and specimen manipulation, using such methods as micro-incineration. In the mid-1830s (when he ran a small school in Peckham, south east of London) he used a method of microscopic illumination, that he characterised as "oblique refracted light" in being set up to stop direct transmitted light entering the objective lens, provided a black background to the specimen, i.e. darkground-illumination. His paper on the technique entitled 'A New method of Illuminating Microscopic Objects' was published in 1837 as an appendix in the influential book *Micrographia* by Goring and Pritchard, and noticed in all books by various authors on the Microscope in the following decades, including Quekett's *Practical Treatise on the Microscope* (2nd edition of 1855) and Jabez Hogg's 2nd edition of *The Microscope* (1856). In 1839 Reade was a founding member of the Microscopical Society of London. He was one of the signatories of the Charter that transformed it in 1866 into the Royal Microscopical Society, was especially active in the society's meetings in his late years and was president at the time of his death.

Reade carried out early experiments in photography, and it is that activity that has been the reason why his name has been given attention in histories of photography. For it had appeared that he may have used photographic preparations of silver salts with oak-galls (gallic acid) and fixation with hyposulphite in 1836 or 1837 - i.e. before the announcement of Daguerre's invention roused artists and scientists in January 1839. However, letters written by him in 1839 provide evidence that he did not carry out such experiments before that year, and that his use of hyposulphite for fixing photographs followed Sir John Herschel's paper on photography read at the Royal Society on 14 March 1839. At the end of that month Reade used an infusion of nut-galls to make

photographic paper more sensitive. This, together with the influence of Herschel, led to the discovery by W. H. F. Talbot that gallic acid developed the photographic latent image. Reade's early use of gallic acid led to him being called in 1854 as a defence witness in a lawsuit, Talbot v. Laroche, concerning Talbot's calotype patent, Reade's appearance in this case brought him attention in the photographic world during the rest of his life, and later. He was vice-president of the Photographic Society in the late 1860s often chaired its meetings.

Reade's life and work in photography and microscopy has previously been the subject of several articles by the present writer [1]. The intention here is to add to those articles a more intimate insight into Reade's life, or rather on the end of his life: an insight from his own thoughts expressed in four letters written by him as he knowingly approached his death [2].

Letters to Jabez Hogg

Through February 1868 to November 1870 seven letters written to Jabez Hogg (1817-1899) [3], as Secretary of the Royal Microscopical Society, have survived. The four letters of 1870 with which we are especially concerned here were those written by Reade in the last three painful months of his life before he died on 12 December 1870. He was indeed still mindful of his official capacity of President of the Royal Microscopical Society, but they are very personal and indeed moving letters.

Bishopsbourne Rectory
Canterbury Sep 21 1870.

My dear Mr. Hogg,

I send you Mr Hankey's private note to me & also his letter to the Pres^t of the R.M.S.

I have hoped to find a day on wh I could feel equall to sending a reply, but my weakness & pain do not allow the exertion. I therefore send all to you & I beg you to write to Mr. Hankey for me & acknowledge ~~him~~ [deleted] & thank him for his kind offer of a prize. & please say how glad I shall be to be able to write to him. At present you will kindly supply my deficiency I am sure. It seems to me that my state is the same as it was 3 or 4 months ago - only I am weaker & very very thin.

I still trust that a Gracious Providence to be restored again to my family & friends. Their kindness & sympathy is indeed a great support.

Ought the official letter to be published in the Journal before it is read to the Society? Perhaps not - You can tell Mr Hankey so, if you think fit - then offer of a prize might perhaps be announced. What do you think?

I am reclining on the sofa as my easiest position. I have a few good points in pulse, appetite & sleep - this latter however due partly to opiates wh ease the pain.

With warmest thanks for your kind letter
Believe me ever
sincerely yours
J:B: Reade

Bishopsbourne Rectory
Canterbury Sep: 27 1870

My dear Mr. Hogg,

Pray accept my best thanks for your most kind & friendly letter. I do indeed value your prayers & those of many dear friends & I trust it may please the heavenly Father to send an answer of peace. But peace will be the result in any event.

You propose the use of Chloral Hydr [Hydrate]. Both [doctor friends] Richardson & Millar spoke of it & I have taken 2 or 3 doses with benefit - Grs XV - I shd be very glad to know how you prescribe it. I have taken 10 or 15 drops of Laudanum 3 or 4 times a day to allay the pain in the Rectum arising no doubt from irritation of the Prostate. And this also causes a bout [uncertain reading] of chronic diarrhoea wh I cannot subdue & I am therefore very weak & thin. Have you heard of the Red Gum as a new and good astringent in such a case? Dr. Picard, my friend at Bridge, told me of it. -

Part of the official letter from Hankey might perhaps be published, but I leave all in your hands. I wrote to [Richard] Owen & Lee will now call upon him. I have written to Pigott. He has a capital paper for the next Journal wh I have seen, but not in time to secure the prior reading at the Soc^y:-

Still looking forward to a re-union & with kindest regards. Believe me ever Yrs [?]
Sincerely yours
J:B. Reade

Bishopsbourne Rectory
Canterbury Nov 7 1870 -

My dear Mr. Hogg -

I send by this post a note on "Pseudo-dichroism" wh I think will interest you & the Weds party. I should be indeed delighted to be with you but the fearful pain of the sciatic nerve & the old pain in the back make me weak indeed & longing for rest. When will that happy day arrive? -

I will send the bottle[s] in illustration of the paper for you to Mr Reeves tomorrow.

I can only add kindest regards & many thanks to you & Mr. Slack [H. J. Slake, second secretary of the RMS] & to my many kind friends for their sympathy.

Yours very sincerely

J.B. Reade

Bishopsbourne Rectory
Nov 25 /70 -

My dear Mr. Hogg

I have now the comfort of a water bed but I still suffer severe pain and the hardening of the liver is now followed by yellowness of the skin -

As it will be impossible to join you at the next meeting I must ask you and Mr. Slack officially to provide a Chairman : the meetings seem to have been lively and entertaining and I will only ask a continuance of your prayers. I greatly value such loving help from Christian friends -

Believe me
ever sincerely yours
J:B. Reade

PS. My kindest regards to the friends who will join you at the meeting -
J:B.R .

It was seventeen days after writing that last letter to Jabez Hogg that the Rev. Reade died - on the evening of 12 December 1870 - at age of 69 years. The death certificate gave cause of death as "Hepatic Disease Jaundice certified". Reade was buried four days later at 2pm Friday 16 December at the church in Bishopsbourne. Jabez Hogg could not get to the funeral, but sent a letter to be read.

Both Hogg and Slack, as the two honorary secretaries of the Royal Microscopical Society, were at the next meeting of the society, at Kings College, London, on 14 December [4]. The chairman was Dr. John Millar, a friend of Reade of long standing ever since Reade had become vicar at the village of Stone in Buckinghamshire thirty years before. It fell to Millar to announce that –

It is my painful duty to inform you that our President is no more. In February last [1870] he first complained of illness, which gradually increased in severity so that it was with difficulty he presided at the last meeting of the session in May; it was then his friend Dr. Richardson examined him, and pronounced he was suffering from incipient cancer, in a place which forbade all hope of removal by operation. From this time his downward course has been very marked; he gradually but steadily lost flesh - did not suffer so much pain as I expected, and calmly sank without a struggle on the morning of the 12th, I last saw him alive on Tuesday, the 7th, when I spent several hours with him receiving instructions on various matters. He was then very much changed, and it was clear his days were drawing to a close; he spoke to me in the most calm, clear, and collected manner, and referred to his approaching end with the utmost tranquillity.

He took an interest in our Society to the last. spoke of the changes likely to be made. and requested me to present in his name a microscope which is an exact counterpart of his first one made by Dollond, and presented to him by his father when he was 15 years old. With it there is the highest power 1/30th made by Dollond at that time, which he had preserved [5] ; these are interesting in the history of the microscope as landmarks of its progress. I have also to present six slides, mounted in brass by Cuthbert ...; they should have accompanied the Objectives he gave to the Society when I presented the Amici

microscope some time ago, but they could not at the time be found, and it was only on this day week Mr [Henry] Lee [6] found them in sorting some of his apparatus for him.

I do not know if this is the place for me to refer to it, but I desire to add that a more calm, contented, and happy frame of mind than he was in it is impossible for me to conceive ...

Dr Millar also quickly prepared a detailed Obituary of Reade, published in the Royal Microscopical Society's monthly journal three months later [7].

References

1. R. D. Wood [1971] - J. B. Reade and the early history of photography, *Annals of Science*, 27 (1971), 13–83 ; R. D. Wood [1972] - J. B. Reade's early photographic experiments, *British Journal of Photography*, 119 (28 July 1972), 643-647 ; R. D. Wood [1996] – 'Rev. J. B. Reade FRS (1801–1870): a bibliography part 1, works written by Reade', unpublished pamphlet deposited in archives of the Royal Society, Shelfmark: Tracts X499/3. These articles are also online, see www.midley.co.uk . A summary of Reade's life and work with a longer list of recent publications can be found in the author's updating of the *Dictionary of National Biography's* original 1896 article on 'Reade, Joseph Bancroft (1801-1870)', in the new *Oxford Dictionary of National Biography*, 46, 230-1, Oxford University Press, 2004.
2. J. B. Reade, Seven autograph letters 1868-1870 to Jabez Hogg: Brotherton Collection, Leeds University Library. Shelf mark: BC Misc. Letters 2 READE
3. 'Jabez Hogg (1817-1899)', *Dictionary of National Biography*, 1st Supplement vol. 2 (1901), 432-3. This short *DNB* article by D'A. Power published not long after Hogg's death, lacks adequate updating in the new *Oxford Dictionary of National Biography* of 2004, for the Oxford editor of science subjects in 2004 drops the 1901 bibliography of Hogg's books,

adding only a few recent minor published biographical references (without mention of Hogg's correspondence at Leeds University Library), and fails to provide anything on Hogg's pioneering studio photography. Better information on Hogg can be found in 'The Hogg Connection' by Robert B. Fisher, *The Daguerreian Annual 1990* (The Daguerreian Society, PA, USA), 101-113, and Steve Gill [Winter 2007], 'Jabez Hogg and a tour of Victorian luminaries: (1) the main account', *The Quekett Journal of Microscopy* (London), **40** (part 6), 507-523 and part 2 of the article, Steve Gill [Summer 2008] ...'Notes and appendices', *QJM*, **40** (part 7), 587-602. Gill provides in the appendices, in a bibliography of Hogg's publications, and references that make up part 2 of his article a most valuable collection of source information.

4. 'Proceedings of Societies. Royal Microscopical Society. King's, College, December 14, 1870', *Monthly Microscopical Journal*, **5**, 39-40 (Jan 1871).
5. These gifts were also recorded in 'Donations to Society', *Monthly Microscopical Journal*, **5**, 88 (February 1871). The Dolland microscope bequested by Reade has been described and illustrated by D. N. Disney, et.al., *Origin and Development of the Microscope as illustrated by Catalogue of the RMS* (1928), p. 227 and plate 23,

being classified by Disney as in a 'Group A (Four Simple Microscopes)', No. 92, and in the RMS original manuscript catalogue, No. 10. The Cuthbert 'Amici design microscope' also referred to by Millar is No. 12 of the RMS manuscript catalogue. From the 1970s the RMS Collection has been on permanent loan to the Museum of the History of Science, Oxford.

6. M. G. Watkins - 'Henry Lee (1826/27-1888), Naturalist', rev. Yolande Foote, *Oxford Dictionary of National Biography* (2004). In a large collection of Henry Lee's correspondence (Western Manuscripts, MSS 5376-5401) at the Wellcome Library, London, are 20 letters of this period to Lee from Reade's family (his brothers George and Richard, and his widow), MSS 5392/1-17, 20-22, as well as two letters to Reade from Richard Owen, and one from W. B. Carpenter MSS 5392/23-25. Also in the Lee correspondence are three letters written in 1870 by J. S. Bowerbank (Wellcome Library, MS 5377) to H. Lee in reply to Lee informing him of Reade's illness and death.
7. Obituary Notices. Joseph Bancroft Reade *Monthly Microscopical Journal*, **5**, 92-96 (March 1871). In a brief report of the meeting of 8 February 1871 on page 141 of the same issue of the *MMJ* it was recorded that "The society was indebted to Dr Millar for preparing an Obituary Notice of the late President".