

Short Paper

Urania's Mirror – a 170-year old mystery solved?

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A hitherto unknown attribution is reported for an early nineteenth century educational aid for astronomy.

One of the most charming and visually attractive of the many aids to astronomical self-instruction produced in the early nineteenth century is the set of cards, printed and hand-coloured, known as *Urania's Mirror*. Contained in a box with a printed label, resembling an early jigsaw puzzle, it is embellished with a picture of a lady who doubtless represents Urania, the Muse of Astronomy (Figure 1). There are thirty-two cards each 8 by 5½ inches (Figure 2) and each is pierced with holes corresponding in size to the magnitudes of the brightest stars. Thus when held up to the light they give quite a realistic representation of the constellation pattern. A facsimile has recently been produced¹ and some of the cards were reproduced in Carole Stott's recent book.² They appear to date from about 1825 and were published by Samuel Leigh, 18, Strand, London. There are at least two sets of the cards, the later ones having stars in the adjacent constellations added.

The set is often accompanied by a copy of one of the editions of *A Familiar Treatise on Astronomy...* written by Jehoshaphat Aspin and published also by Samuel Leigh, and later by M. A. Leigh at 421 Strand. The first two editions were both dated 1825

and the book expanded remarkably from one to the other, from 112 to 200 pages. The first edition was described as representing 'all the constellations visible in the British Empire' (not, at that date, a condition which imposed a very stringent astronomical restriction) while the second version reduced this to 'Great Britain'. One wonders whether any inhabitants of Van Diemen's Land or Botany Bay had complained at the omission of such southern delights as Crux, Tucana or Chamaeleon? The Royal Astronomical Society Library copy is the fourth edition of 1834. The title page (Figure 3) of all the versions says the book is 'written expressly to accompany *Urania's Mirror*' which is described as 'On a plan perfectly original, designed by a lady'. The introduction further qualifies the lady as 'young'.

There has been much speculation as to who this notional lady might have been, among them Caroline Herschel and Mary Somerville,³ but no convincing suggestions have been offered for female astronomers active at the relevant date with an interest in popularisation. The cards have also been, understandably, attributed to Sydney Hall, the engraver, despite the fact that his

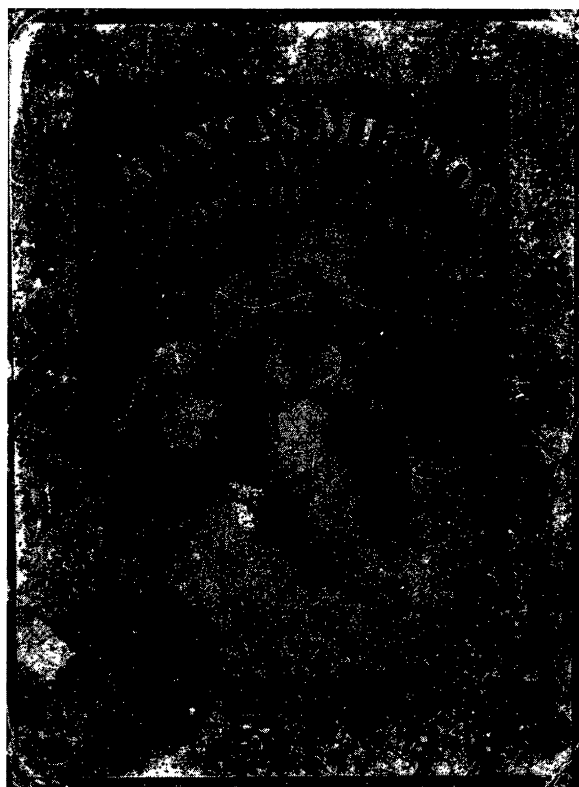


Figure 1. Urania – muse of Astronomy.



Figure 2. One of the 32 cards in *Urania's Mirror*, representing Cassiopeia.

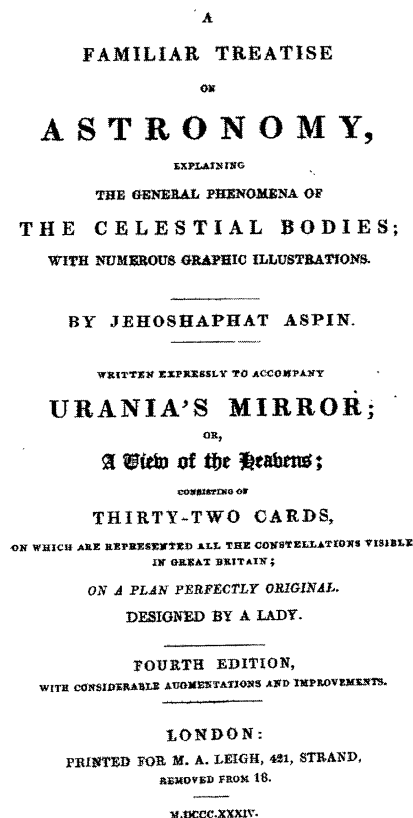
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Figure 3. The title page of *A Familiar Treatise on Astronomy*.

name is followed by 'Sculpt.' not 'Del.' Hall was a working engraver who illustrated topographical and geographical works, while Aspin described himself as a 'Professor of History' and wrote many works on history, geography and chronology. This pleasant conundrum has tantalised astronomical historians for many years.

While transferring some early RAS election certificates to acid-free conservation enclosures recently the present writer chanced upon the document illustrated in Figure 4 (RAS Papers 1, 1830). This is the proposal paper of the Rev'd Richard Rouse Bloxam, D.D., elected to the Society on 1830 January 8 on the proposal of the Rev'd William Pearson, Rev'd Thomas Belgrave, Edward Troughton, and Dr John Lee. He was described as the Rector of Brinklow, Warwickshire, but now resident in Rugby. Pearson was the incumbent of South Kilworth, Leicestershire, and had been one of the original fourteen who dined on 1820 January 12 to discuss the foundation of the Astronomical Society of London. Belgrave was the Rector of North Kilworth and was elected on 1821 December 14 having been proposed by Pearson. All these places are quite close together, Brinklow being six miles northwest of Rugby, while South Kilworth is about eight miles northeast towards Market Harborough, with North Kilworth two miles further.

Dr Bloxam is quite clearly described on the proposal paper as 'Author of *Urania's Mirror*'. Thus unless there is an as yet undis-

covered book of the same title by this author, it appears that his was the identity masked by the imaginary lady. As the proposal would have been made out by Pearson it is quite possible that Bloxam himself would not have wished this to be included, depending on the motive for anonymity. No books by Dr Bloxam appear in the *British Library Catalogue* nor is he among the numerous Bloxams, some of them his sons, whose works appear in the *Royal Society Catalogue of Scientific Papers*. No significance should be attached to the handwritten nature of the paper; a minority of Fellows' proposals, and all those for Associates, were handwritten at that date, and not on the printed form.

Reference to standard biographical sources^{4,5,6} indicates that Dr Bloxam was 'for thirty-eight years assistant master at Rugby School'. Born probably at Alcester, Warwickshire, in about 1765, the son of Richard Bloxam of that town, he entered Rugby School in 1777 and matriculated at Christ Church, Oxford, in 1782, aged 17.

Gaining his BA in 1787 he proceeded MA in 1790. In that year Dr James, the notable Headmaster of Rugby from 1778 to 1794, appointed him as an assistant master. If the 38 years is correct he would have left in about 1828. He became a Bachelor and Doctor of Divinity in 1810. The records of Rugby School give what may be a hint of the possible genesis of his astronomical interest; Dr James caused a painting to be executed on what is now the wall of the school house garden, representing the Solar System, some fragments still being visible to this day.

Dr Bloxam was married to Anna, the elder sister of Sir Thomas Lawrence RA, and had six sons at least three of whom took Holy Orders and achieved considerable distinction in various fields. While the school does not possess a portrait it is possible that a likeness by Lawrence may survive as he painted various members of the family. A collection of material relating to one of the sons is preserved at the school, including some astronomical material, and would doubtless repay investigation. It is not clear whether Dr Bloxam held the Brinklow living in plurality with his post at the school. He died on 1840 March 28; the RAS records give the date as 1857 so presumably nobody thought to tell them.

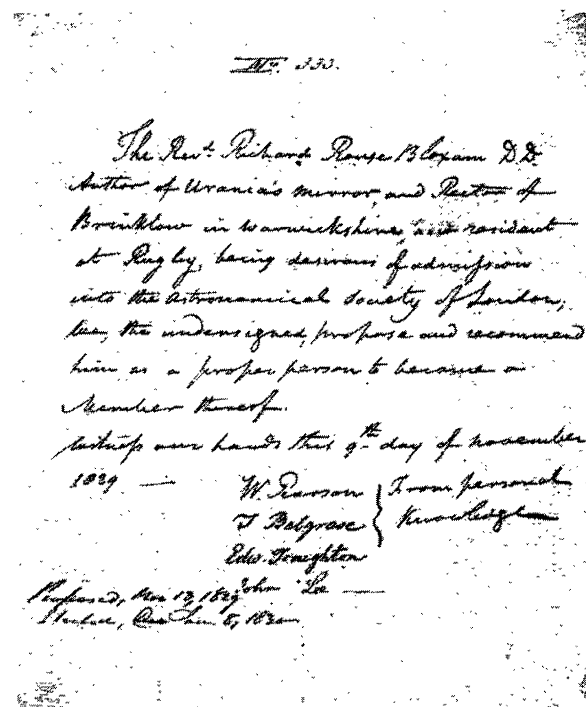


Figure 4. RAS proposal paper for the Rev'd Richard Rouse Bloxam.

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The question remains as to why this form of concealment of identity was adopted. The most probable explanation is that it was for commercial reasons. Many books and magazines of the time were titled to suggest female involvement, perhaps to make them seem less forbidding, to either sex! The second possibility is that anonymity might have been necessary because of his position at the school, but this seems unlikely. Rugby was quite a progressive school, especially later, under Dr Arnold, and indeed had its own observatory later in the century. Astronomical studies would seem more respectable than some of the activities indulged in, publicly or otherwise, by nineteenth century clergymen. The third possibility is good old-fashioned modesty. Doubtless this further question will never be answered.

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Mr R. MacLean and Mrs J. Macrory (Librarian and Archivist, Rugby School), Mr N. Savage (Librarian, Royal Academy of Arts), and Mrs S. Hingley (Librarian, Canterbury Cathedral).

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References

- 1 Tennant, C., *The Box of Stars*, Chatto & Windus, 1993
- 2 Stott, C., *Celestial Charts: Antique Maps of the Heavens*, Studio Editions, 1991
- 3 Sperling, N., 'The Mystery of *Urania's Mirror*', *Sky & Telesc.* **61**, 398 (May 1981)
- 4 *Rugby school register* from 1675 to 1867 inclusive, Rugby and London, 1867, page 31
- 5 Foster J., *Alumni Oxonienses...* Vol 1, London 1888, page 125
- 6 Boase, F., *Modern English Biography*, Vol 1, London 1965, page 317
- 7 Layard, G. S., *Sir Thomas Lawrence's Letter Bag*, London, 1906

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Other books received

(Mention here does not preclude a fuller review later. The main review section appears this month on page 256).

Astronomy: The Evolving Universe (Seventh edition), by Michael Zeilik. John Wiley & Sons (New York), 1994. ISBN 0-471-59739-2. Pp xiii + 525, £29.95 (pbk). Fully revised & updated edition of yet another classic American college text. Tries very hard (with considerable success) to convey the excitement and wonder of astronomy.

The Stars: their structure and evolution (2nd edition), by R. J. Tayler. Cambridge University Press, 1994. ISBN 0-521-46063-8 (hbk), 0-5214-5885-4 (pbk). Pp xiii + 241, £30.00/£12.95. New and greatly revised edition of a widely-used undergraduate textbook first published in 1970.

Solar and Stellar Activity Cycles, by Peter R. Wilson. Cambridge University Press, 1994. ISBN 0-521-43081-X. Pp xiii + 274, £40.00 (hbk). Graduate and research level monograph, reviewing our current understanding of activity cycles on the Sun and other stars.

Universe (Fourth edition), by William J. Kaufmann III. W. H. Freeman & Co., New York, 1994. ISBN 0-7167-2379-4. Pp xviii + 624, £28.95 (hbk). New edition of a secondary-school level general textbook reviewed in the *Journal* in 1991 June.

(101(3), 184). *Liberally illustrated and densely packed with material, this nicely-written book includes standard and advanced questions and a bibliography of further reading for each chapter. There are also twelve star charts, and a thorough glossary with references to the topic in the text. A lot of 'meat' for the money.*

Orbital Mechanics, by John E. Prussing & Bruce A. Conway. Oxford University Press, 1993. ISBN 0-19-507834-9. Pp xi + 194, £27.50 (hbk). Senior undergraduate and first-year postgraduate textbook.

Collins Dictionary of Astronomy, by Valerie Illingworth (ed). Harper Collins, 1994. ISBN 0-00-470370-0. Pp 520, £8.99 (pbk). Twenty-four listed contributors (including many well-known names) helped prepare this reference work, which has over 3500 entries.

North West Astronomers: William Lassell, by Gerard Gilligan. Pp 27, £1.00 + postage from Liverpool Astronomical Society, c/o Tony Williams, 14 Whitelodge Ave., Huyton, Merseyside L36 2PU. Described by Allan Chapman as 'the last of the great Gentleman Amateurs', William Lassell used his fortune from the Liverpool brewery business to establish an observatory equipped with first a 24-inch and then a 48-inch reflector. Observing from cloudy Liverpool and later from Malta, he conducted a substantial programme of planetary observations, and if luck had worked out differently, could have discovered Neptune. Gerard Gilligan and the LAS are to be congratulated on this thoroughly-researched and well-written account of Lassell's life and work.

'The Astronomer' Thirtieth Anniversary Handbook. Pp 80, £7.50 post paid UK, £10.00 'Europe and beyond', from Guy Hurst, 16 Westminster Close, Kempshott Rise, Basingstoke RG22 4PP. Twenty-five marvellous, lively and often nostalgic articles from around the world celebrate the thirtieth birthday of the TA 'family'. If anyone still harbours the illusion that serious amateur astronomers are boring, this book will quickly dispel it. Also contains a facsimile of the very first issue of TA's precursor, 'The Casual Astronomer'.

The Supernova Story by Laurence A. Marschall. Princeton University Press, New Jersey, 1994. ISBN 0-691-03633-0 (pbk). Pp xx + 320, £10.95. Paperback edition of this highly readable and authoritative book, originally published in 1988 and reviewed in the *Journal* in 1989 June (99(3), 151). Nature commented on the first edition: 'Marschall's supernova book is a superb piece of writing; it reads almost as easily as a good novel'. A new prologue and epilogue summarise recent developments on SNe 1987A and 1993J.