



THE LIFE AND WORK OF JANE WEBB LOUDON

Women & Science in the
Nineteenth-Century: Science
Fiction and Science
Education

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Abstracts of papers, in presentation order

Sarah Dewis: *The Ladies' Companion, At Home and Abroad:* Loudon as Editor and the employment of (other) Women

In October 1849, at the age of 42, Jane Webb Loudon was appointed editor of a new three penny (4d stamped) weekly magazine for women - the *Ladies' Companion, At Home and Abroad*. First issued in December of that year, its editor was replaced within six months. My focus in this paper will be on women and employment. In the context of women's position as journalists and of Webb Loudon's fraught relations with her publisher and sub-editors, I argue that during her six-month period as editor of the *Ladies' Companion*, connections between 'ladies' and paid work were incorporated into the discourse of the journal and into its production practices

Published by Bradbury and Evans, who were also the publishers of *Punch* (from 1842) and of Dickens's *Household Words* (1850-59), the *Ladies' Companion* provided an alternative to what was currently available to different classes of women readers; the secular fiction and fashion-based expensive monthlies such as the *New Monthly Belle Assemblée* (1834-70), the

Christian ladies magazines and the cheaper family weeklies such as *Eliza Cook's Journal* (1849-53).

The *Ladies' Companion* was a 16 page, large format publication with full page plates in almost every number, containing a mix of fiction and poetry, articles on the arts, the decorative arts and fashion, science and social questions, and reviews of books, concerts and exhibitions. Regular features included puzzles or games for children, the 'What-not' - a collection of aphorisms, a 'Work-Basket' of sewing patterns and 'My Letter-Bag' of correspondence between the editor and her readers. Within eighteen months the magazine had become a monthly, and by 1852 it had merged with the *New Monthly Belle Assemblée*.

The production of the press before 1850 was largely a male preserve as commentators have noted. While Jane Webb Loudon was editor women writers and artists were provided with opportunities for free-lance work by the *Ladies' Companion*. In its manifesto she suggests that an important element of the magazine will be 'the causes of those females who are compelled to labour, either mentally or bodily'. The focus on the difficulties faced by women who had to work for a living, though woven into private sphere discourse, pre-dates that of the *English Women's Journal*, started in 1858, by almost a decade. The ambiguities of Jane Webb Loudon's own position as employee and as a woman are played out during the six-month period of her tenure in a series of exchanges between her, her publisher, and the sub-editors.

Andy Sawyer: Jane Webb Loudon: The Woman Who Built Science Fiction (*and Gardening*)

According to many science fiction fans, sf was fathered by: Jules Verne: H. G. Wells: Hugo Gernsback. In *Billion Year Spree* (1973), Brian Aldiss argued strongly that the founding mother of the field was Mary Shelley. In discussing Jane Webb Loudon's *The Mummy! A Tale of the Twenty-Second Century*, I will draw upon the work of Alan Rauch and Paul K. Alkon to argue that if there *is* a firm foundation for science fiction as we know it, then it lies in the interplay between Mary Shelley and Jane Webb in 1827. *The Mummy!*, and Jane Loudon's introduction to the novel, is a crucial text in the development of the idea of the future as an imaginary otherworld in which aspects of our own can be subject to thought-experiment and speculative testing.

Nickianne Moody: Jane Loudon: Utopias, Themes and Concerns across a Professional Career

Jane Loudon wrote professionally for the whole of her adult life. The poems and short stories in her first published work in 1824 establish utopian themes and interests which recur in her major work of fiction, *The Mummy*, then in her horticultural journalism, and lastly commercial non-fiction. Loudon was concerned with injustice, social reform, morality, empirical observation and reflection, and the importance of universal education. This paper examines how Loudon's rhetoric develops in order to manage the contemplation of social reform within the print culture of the Regency and the beginnings of the mass publication for an expanded Victorian reading public.

Ruth Morris: Braddon, *Belgravia* & Sensational Science

Mary Elizabeth Braddon (1837-1915) was a prolific novelist, writing over eighty novels, but apart from her two best sellers, *Lady Audley's Secret* (1862), and *Aurora Floyd* (1863), her work has been largely neglected from scholarship. In 1866 Braddon took over editorial control of the monthly publication *Belgravia: A London Magazine*. The magazine was aimed primarily at a middle class audience and had full page illustrations, imitating the already successful format of *Cornhill*. Within the space of two years, *Belgravia* became one of the most successful of her publisher John Maxwell's magazines, reaching a circulation of 18, 000 in 1868. Like the majority of her novels, *Belgravia* has also been overlooked which is lamentable as it engages with scientific debate in a distinct manner, which this paper will explore.

The pages of *Belgravia* contain an almost seamless blend of literary and scientific articles. Their very juxtaposition suggests Braddon did not consider them as two separate disciplines for two different readerships and the sales figures show that her editorial decisions in positioning the two next to each other did not damage the popularity of the magazine. Perhaps more interesting than simply aligning articles together is the linguistic techniques employed to bring together the features into one coherent entity. Popular science was incorporated within a predominantly literary magazine without altering its prevailing tone by essentially making the scientific articles as 'sensational' as the literary input. Titles such as: 'On Shooting People Down', 'Dying by Poison', 'Matrimony among the Bombshells', 'Beautiful for Ever', 'Does the Earth Grow Sick?', 'Are there more Worlds than one?' or 'Is the Sun dying?' give a brief flavour of this sensational element. From the title, throughout the content and to the structuring of the scientific articles, they can be aligned quite closely with the sensation genre of fiction which this paper will explore.

By marketing science as essentially as 'sensational' as her literature, Braddon was also able to use science as a defence against the literary criticism which she received. One series in particular 'Sensationalism in Science' by R.H. Patterson engaged with literary as well as scientific debates and the interconnections between the two. The article essentially suggests that science is in many respects more sensational than fiction, and in so doing, Patterson was able to launch a comprehensive defence against the critical attacks on Braddon's fiction. The paper will examine this series in particular as it does not seem a coincidence that the first 'Sensationalism in Science' article appeared in the volume that contained Braddon's own satire attacking the critics of sensation fiction, 'Mudie Classics.' The paper will also look at the references to Charles Darwin throughout the publication of the magazine and consider how his work was similarly 'sensationalised' in this periodical and the effects this had on the reception of his work for this audience.

Greta DePledge: Florence Marryat and the late nineteenth century vivisection debate

Florence Marryat produced over 70 novels during a thirty year career. This prolific writer is generally classified as a writer of sensation fiction and with plots including murder, illegitimacy, bigamy, adultery and seduction, amongst many other classic sensation themes, this categorisation seems fairly accurate. However within these sensational plotlines Marryat regularly engages with scientific and medical debates.

The focus of this paper will be Marryat's exploration of the late nineteenth-century vivisection debate which features in a number of her works. Many notable women writers contributed to this debate in a wide range of literary production throughout the nineteenth century. It was a potent topic amongst new women writers and was debated extensively in

the pages of *Shafts*. Interestingly this newspaper had the by-line 'A Paper for Women and the Working Classes' and the vivisection debate was seen to have a particular significance for these marginalised groups in society which I will explore further in this paper. Whilst Marryat did not write for *Shafts* her exploration of this controversy reflects the mood and attitude towards vivisection that was seen in this newspaper.

Marryat's contribution to the formation of popular scientific awareness through her exploration of scientific debate in her fictional output has been hitherto unaddressed. One of the reasons for this might be that she dismissed herself as a writer of 'ephemeral fiction'. However, Marryat has recently undergone a renaissance of academic interest and this paper will study some of her writing including *The Dead Man's Message* (1898) and *An Angel of Pity* (1898) in conjunction with medical writing and other literary production of the period in an attempt to assess her dissemination of key arguments from the vivisection debate to her vast readership. *The Dead Man's Message*, whilst avoiding detailing the actual horror of vivisection, does address its moral dilemma by consigning a vivisectioning scientist to purgatory until he acknowledges and repents of his scientific sins. This novel also deals with spiritualism and the fin-de-siècle was a period when science and spiritualism were occasionally confused. Links between interest in spiritualism and support of anti-vivisection will also be looked at briefly in this paper. *An Angel of Pity* deals graphically with the actuality of vivisection. Whilst *An Angel of Pity* is ostensibly a love story, this novel details a relationship that is very nearly destroyed because of a scientific commitment to the practice of vivisection. This relationship has echoes of the marital disharmony vivisection caused for Claude Bernard, who was an avowed vivisectioner, as is the central protagonist of this novel. This link will be explored further in this paper.

By discussing the use of scientific debate as a narratorial device in nineteenth-century popular fiction, this paper hopes to contribute to an understanding of this very contentious topic and its impact on popular culture.

Cynthia Burek 'The contribution of women to Welsh geology research during the late nineteenth century'

The importance of Welsh geology to the development of the science of geology and the stratigraphic column is underestimated and indeed the contribution of women to this process is largely overlooked. This paper explores the scientific contribution and the role that women made in the late nineteenth century to the exploration of Welsh stratigraphy. The work of Gertrude Elles, Ethel Skeat, Ethel Wood and Margaret Crosfield, the so called "Newnham quartet of palaeontologists" and also Dilys Davies the first female to study geology at Newnham College, Cambridge and the contribution of Annie Greenly to the work of her husband Edward Greenly on Anglesey is explored in detail. Without their contributions, Welsh stratigraphy would not be as advanced as it is today. However it must be remembered that scientific research was not the only contribution they made and their other roles such as illustrators, proof readers, field assistants and teachers will also be examined against the background of the time. Whether they were English women researching in Wales or Welsh women undertaking research in their own country is often governed by outside factors, particularly the attitude of Late Victorian society to educated women undertaking fieldwork. The fact that there were no higher education institutions in Wales at the time admitting women is also a significant factor for geological research. The importance of Wales to the history of geology but more especially stratigraphy is not widely appreciated and the contribution of female researchers to this development largely forgotten. This paper hopes to rectify this omission.

Karen Sayer ‘Eleanor Ormerod: agriculture and the science of economic entomology’

As J. F. M. Clarke has argued, ‘[t]hrough lectures, textbooks, and examinations, Eleanor Ormerod played a pivotal role in the institutionalization of economic entomology’ (J. F. M. Clarke, ‘Ormerod, Eleanor Anne (1828–1901)’, *ODNB*). Awarded a silver medal by the Royal Horticultural Society in 1870, the first woman to be elected a Fellow of the Meteorological Society 1878, and elected to Entomological Society of London, 1878, she was nonetheless the unpaid consulting entomologist to the Royal Agricultural Society of England, 1882-1892. In the latter stages of the nineteenth century agriculture was responding to increasing scientific specialisation by establishing its own sub-disciplines, harnessed to the wider commercial project of ‘improvement’. Addressing increasing competition from abroad, various ‘natural’ crises and economic downturn, the professional agricultural community sought to manage the environment to its best advantage. Yet, Nature was still seen as the ultimate arbiter of success or failure; commercial schemes would flounder in the face of natural barriers. This paper seeks to investigate Ormerod’s contribution to this field, her position with respect to the boundaries/limits of Nature, and her relationship to the professionalisation of the agricultural sciences.

Laurence Vielmas-Talairach, ‘How are you to enter the fairy-land of science?’: The wonders of the natural world in Arabella Buckley’s popular science works for children

The popularisation of science has long been the province of women. As a case in point, Jane Marcet’s *Conversations on Chemistry, Intended More Especially for the Female Sex* (1805), published at the beginning of the nineteenth century, was famous for having influenced Michael Faraday. In the Victorian period women still played a key role as popularisers of science. In fact, in the second half of the nineteenth century, popularisation became for women the only means of access to the scientific world, especially as the growing professionalization of science pushed women to the margins, excluding them from universities or scientific societies, and as evolutionary theory defined them as intellectually inferior. The natural world, in particular, seemed to appeal to women, as exemplified by the numerous works by Sarah Bowdich, Mary Roberts, Agnes Catlow, Jane Loudon, Phebe Lankester, Elizabeth Twining, or Elizabeth and Mary Kirby.

This paper will focus on Arabella Buckley as a significant example of the way in which Victorian women popularisers of science negotiated the tensions of the period. In *The Fairy-Land of Science* (1879), Buckley foregrounds the importance of imagination, peopling her narrative with fairies. As I will argue, her emphasis on imagination and her construction of vision as spiritual prefigures the ‘spiritual evolutionism’ (Bernard Lightman, *Victorian Popularizers of Science: Designing Nature for New Audiences* [Chicago and London: The University of Chicago Press, 2007]) of her following works on the evolution of life: *Life and Her Children* (1880) and *Winners in Life’s Race* (1882). As this paper will show, Buckley manages to reconcile evolution with religion while following the basic tenet of scientific naturalism and grounding her work on scientists associated with scientific materialism, from John Tyndall to Charles Darwin. Thus, this paper contends, by drawing on narrative techniques and motifs typically associated with children’s literature, Buckley offers a vision of the environment and of life on earth that reaches far beyond the science and religion conflict that marked the nineteenth century.

Joanne Knowles, 'Devoted to Science'? Mary Kingsley and discursive/disciplinary positioning'

At the end of the nineteenth century, Mary Kingsley became famous for the expeditions to West Africa she undertook in 1893-5, resulting in extensive press coverage, a large volume of requests for her to write and lecture on her experiences, and in 1897 the publication of her best known work, *Travels in West Africa*. Since then Kingsley has been viewed as a 'traveller and writer' and, variably, both a feminist and an anti-feminist champion; however her scientific aims and accomplishments on her travels feature as a secondary consideration, in spite of her name being used by the medal awarded by the Liverpool School of Tropical Medicine (LSTM), an establishment with which Kingsley is linked, for outstanding achievements in the field of tropical medicine. This paper describes the beginnings of a project which aims to draw on archives held by LSTM and the University of Liverpool to explore the ways in which Kingsley has been positioned - by herself, her peers and the body of commentary that has been produced about her work - as scientifically orientated, competent and aspirational, or otherwise.