

REPORT

Science in the nineteenth century periodical: an electronic index

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In 1858 James Clerk Maxwell explained to his friend Lewis Campbell that ‘there are good books ... with which people may be as delighted as Mary Anne was with Faraday’s lecture, of which she gave an account to *Punch*’.¹ Maxwell was referring to a recent article in the leading British comic weekly in which the fictional ‘Mary Ann’ had described her visit to the Royal Institution.² Possessing a notorious penchant for witticisms, Maxwell was an obvious reader of Britain’s leading comic weekly paper. However, the eminent Scottish physicist was one of many Victorian scientists whose regular diet of reading included *Punch* and many other non-scientific periodical titles such as *The Times*, the *Pall Mall Gazette*, and the *Contemporary Review*. His reference to *Punch* also illustrates the more significant point that general periodicals frequently contained references to scientific, technological and medical topics. Typically classified as ‘non-scientific’ publications and overlooked by many historians of science, general periodicals are increasingly being recognized by historians as crucial agents in shaping the scientific understanding of nineteenth-century reading publics. These publications often enjoyed circulations far exceeding those commanded by even the most successful scientific or technical journals of the century: compare, for example, *Nature*, with 5000 readers in 1870, with the 25 000 readers of the *Wesleyan Methodist Magazine* in the 1820s, the 60 000 of *Punch* in the early 1860s, and the 300 000 of the *Review of Reviews* in 1890.³ The hacks, vicars, jobbing artists and penurious scientific practitioners who discussed science in these periodicals may well, as Bernard Lightman has pointed out, have been more important than such professionalizers as T. H. Huxley and John Tyndall in shaping the public images of the sciences.⁴

Probing the numerous volumes of general periodicals is a daunting task. An estimated 125 000 titles were launched in Britain between 1800 and 1900, only a small fraction of which are available in most academic and public libraries, and an even smaller proportion of which were rebound with indexes to article titles and authors.⁵ *Poole’s index to periodical literature* and the *Wellesley index to Victorian periodicals* were pioneering attempts to rake through this complex material. Both offered indexes to a small proportion of the more distinguished journals but were keyed to the titles and authors of articles rather than to the content. This means that the vast number of articles whose titles do not indicate scientific content—*Punch*’s piece on ‘Mary Ann’ being a good example—are absent from such valuable research aids.

Science in the nineteenth-century periodical: an electronic index (the *SciPer index*)* complements *Poole’s* and the *Wellesley* by giving web users free access to a welter of hitherto

* <http://www.sciper.org>.

unknown references to science, technology and medicine in the textual and pictorial material in 16 general periodicals published in Britain between 1800 and 1900. Based on a close analysis of the entire content of selected runs of a periodical, the *SciPer Index* transforms our knowledge of how much scientific, technological and medical material there was in such print genres as cartoons, jokes, poems, political commentary and serialized fiction. It contains summaries of 7500 articles (doubling to more than 15 000 when complete), which include references to over 5500 individuals, 2000 publications and 1000 institutions. The 16 titles included in the *SciPer Index* are a small fraction of the 125 000, but they are representative of the different periodical genres and illustrate the broader changes in periodical history during this era. They include an early century miscellany (*Mirror of Literature*), a comic weekly (*Punch*), a woman's monthly (the *Englishwoman's Domestic Magazine*), a juvenile weekly (*Boy's Own Paper*) and a key example of 'new journalism' (*Review of Reviews*). Users can simply browse the indexes to explore the topics covered by a specific periodical during a specific period, or they can conduct searches for global keywords, and more detailed searches for individuals, institutions, publications, scientific topics and historical themes. Searching produces lists of 'hits' that take the user to summaries of articles, all of which provide details of authors, illustrators, genres, scientific topics, historical themes and the significant people, institutions and publications mentioned, and the more complex and historically significant articles come with descriptive précis.

The *SciPer Index* has been produced by the SciPer Project at the universities of Leeds and Q1 Sheffield, and was funded by the AHRB, the Leverhulme Trust and the MHRA. It will be an indispensable research tool for historians of science, literary scholars, cultural historians and others interested in the interpenetration of science and literature. It also provides access to a welter of primary material that will contribute to the current scholarly debate on the meanings and processes of 'popularization' in the sciences, a goal that members of the the SciPer project have also sought to achieve in three volumes of essays on the embeddedness of the sciences in nineteenth-century British print culture.⁶

NOTES

- 1 Maxwell to Lewis Campbell, 20 January 1858, in Lewis Campbell and William Garnett, *The life of James Clerk Maxwell* (Macmillan, London, 1884), pp. 212–214.
- 2 [Anon.], 'Mary Ann's notions', *Punch* **32**, 109 (1858).
- 3 Richard D. Altick, *The English common reader: a social history of the mass reading public 1800–1900* (Chicago University Press, 1957), pp. 393 and 396.
- 4 Bernard Lightman, "'The voices of nature": popularising Victorian science', in *Victorian science in context* (ed. B. Lightman), pp. 187–211 (Chicago University Press, 1997).
- 5 John S. North (ed.), *The Waterloo directory of English newspapers and periodicals, 1800–1900* (50 volumes) (North Waterloo Academic Press, Waterloo, Ontario, 1994), vol. 1, p. 9.
- 6 Geoffrey Cantor, Gowan Dawson, Graeme Gooday, Richard Noakes, Sally Shuttleworth and Jonathan R. Topham, *Science in the nineteenth century periodical* (Cambridge University Press, 2004); Geoffrey Cantor and Sally Shuttleworth (eds), *Science serialised: representation of the sciences in nineteenth century periodicals* (MIT Press, Cambridge, MA, 2004); Louise Henson, Geoffrey Cantor, Gowan Dawson, Richard Noakes, Sally Shuttleworth and Jonathan R. Topham (eds), *Culture and science in the nineteenth-century media* (Ashgate, Aldershot, 2004).

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