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Editorial

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I am honoured to have been asked to write the editorial for the second issue of this new international journal and delighted that, after more than 180 years of its minutes and proceedings, the Institution of Civil Engineers is now publishing a periodical dedicated to the history of its branch of knowledge. The appearance of this new publication is no mere chance event: it is the latest step in the development of the history of engineering as a subject.

The history of any subject is characterised by who writes it, why and for whom. Histories of many technical subjects are now well established as professional academic disciplines, for example mathematics, astronomy, physics, medicine, technology and so on. The majority of writers on the history of science, design and practice in engineering, however, have been amateurs in the sense that they earn their incomes from other activities, usually engineering. Their interest in the subject has driven them to research both primary and secondary sources in their free time, and to share their passion with others through lectures, books and occasional historical papers published in the professional journals such as the Proceedings of the ICE – until quite recently, that is.

The 1960s saw a growing concern at the wanton destruction of industrial artifacts and structures dating from the 18th and 19th centuries, linked especially to railways, canals and mining. One response to this, especially in the UK, was the rise of industrial archaeology. Another was the realisation that many of these old artifacts, which in the 1970s came to include many of the buildings such as warehouses and factories that served industrial society, could be preserved, either as museum exhibits in the landscape or, with intelligent intervention by engineers, as useful artifacts which might serve their original purpose or new uses thrown up by modern society. This birth of the 'heritage industry' has been accompanied by the professionalisation of engineering history and a growing number of professional organisations, research institutes and university departments, publications and conferences devoted to its practice. Because they attract both amateurs and professionals, conferences and publications such as this one can be especially fruitful to engineering, conservation and heritage professionals whose work might suddenly require them to know about the history of a type of structure, or a particular structure, or the use of construction materials and design methods in earlier times.

One of the more recent additions to the field of engineering history has been construction history, which embraces many civil engineering themes as well as building engineering. The first world congress on construction history was in Madrid in 2003, the second in Cambridge in 2006, and the third will be in Cottbus in Germany in May 2009. These, other international initiatives[1] and similar national conferences, for example in Spain, Italy and France, have brought together authors from throughout the world to share their interests and experience. They have also helped draw together under a single umbrella a range of engineering subjects that is reminiscent of the wide range found in the Proceedings of the ICE in the middle of the nineteenth century.

This second issue of *Engineering History and Heritage* includes two papers on bridges, one on canals, one on concrete and one on engineering conservation.

Ian Hume[2] was a pioneer in the 1970s and 1980s in addressing the issues that arise when assessing the capacity and safety of existing building structures. In this paper he reports on the newly launched scheme for accrediting engineers who are competent to deal with the conservation and repair of historic structures. The Conservation Accreditation Register for Engineers (CARE) is administered jointly by the Institution of Civil Engineers and the Institution of Structural Engineers in the UK.

Andrew Taylor[3] describes the recent work by Pell Frischmann Consulting Engineers in restoring and bringing back into use a derelict cast iron swing bridge, constructed in the early nineteenth century in Kingston upon Hull in England. A particular challenge was using modern techniques of structural analysis to assess the behaviour and suitability of the bridge for modern loads and in the light of today's *Codes of Design Practice*.

Adam Neville[4] draws heavily on his own personal experiences in his review of high-alumina cement (HAC) and the problems that arose with its use in the construction industry, especially in the 1960s and 1970s. This issue was addressed in the UK by the Stone Committee whose report is still the authoritative document on the subject.

David Henthorn Brown[5] reviews the early history of feeder reservoirs for canals in Great Britain, and how their design and construction developed as requirements changed and engi-

neering progressed. British Waterways is responsible for 91 such structures that are still in use, and whose average age is 205 years.

Michael Bartlett[6] discusses the design of the wrought-iron bowstring truss Blackfriars Bridge in London, Canada in the early 1870s. This was at a time when structural and bridge engineers were starting to model redundancy in their structures, and the author assesses the extent that this may have been done in the design of this bridge.

The final contribution to this issue is a review by Andrew Saint of volume 2 of the extraordinary Biographical Dictionary of Engineers, edited by Sir Alec Skempton et al. The first volume (2002) covered British engineers and engineers working in Britain and its colonies during the period 1500–1830; the volume reviewed covers the next period to 1890.

REFERENCES

1. Becchi A., Corradi M., Foce F., and Pedemonte. Construction History: Research Perspectives in Europe. Florence: Kim Williams Books, Firenze, 2004.
2. Hume I. Conservation Accreditation Register for Engineers. *Proceedings of the Institution of Civil Engineers, Engineering History and Heritage*. Thomas Telford. London. 2009, **162**, No. 2.
3. Taylor A. Wellington Street Swing Bridge, Hull. *Proceedings of the Institution of Civil Engineers, Engineering History and Heritage*. Thomas Telford. London. 2009, **162**, No. 2.
4. Neville A. The Stone Committee and history of high alumina cement. Part 1 and Part 2. *Proceedings of the Institution of Civil Engineers, Engineering History and Heritage*. Thomas Telford. London. 2009, **162**, No. 2.
5. Brown D. H. Canal reservoirs. *Proceedings of the Institution of Civil Engineers, Engineering History and Heritage*. Thomas Telford. London. 2009, **162**, No. 2.
6. Bartlett M. 1870s innovation in London Canada's Blackfriars Bridge. *Proceedings of the Institution of Civil Engineers, Engineering History and Heritage*. Thomas Telford. London. 2009, **162**, No. 2.