Editorial

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We are sad to announce the death of Lawrance Hurst on 10 November 2018 at the age of 84. He was involved with setting up *Engineering History and Heritage* in 2007 and served on its Editorial Panel until 2017. We intend to publish a tribute to Lawrance in a later issue, which will cover his many and varied activities related to structural engineering and our built environment.

Lawrance Hurst's passing leads me to reflect on how individuals can make an impact on their chosen profession. I first met Lawrence very many years ago on a building site in Bath, UK. There had been a serious fire that had almost destroyed the building, leaving its important Grade One-listed, colonnaded facade in a precarious state and he had been appointed by the building owner to review my proposals. It was my first encounter with an expert in historic structures and he made a great impression on me. Not only did he have great knowledge of historic techniques, he had a passion for the architectural quality of the building and its details; I learnt much from that short meeting, both relating to the project in hand and in relation to the essential difference in approach between new building design and the repair of existing buildings.

In Dickson *et al.* (2009), Michael Dickson, who also died in 2018, emphasised the need, when working on existing structures, to study a building to investigate load paths. For existing structures, these load paths are a pre-condition of the design process and, furthermore, to gain a proper understanding of them, it is essential to have full appreciation of construction methods and materials used at the time of original construction. I worked closely with Michael for over thirty years both at Buro Happold and at the University of Bath. I learnt from him that engineering can be trusted. As a profession we are honest about our techniques and by making them known and open to criticism we can have confidence in our predictions of the behaviour of our structures.

In the UK, expertise in engineering history and heritage is largely held within the body of practicing engineers. Internationally, it is also a recognised academic discipline of major importance and construction conservation knowledge and teaching finds its home in many of the top academic institutions. In this context, I note that in 2018, Professor Werner Lorenz retired from his role as professor of construction history at the Brandenburg Technical University in Cottbus, Germany. For 25 years, Lorenz, through his chair in 'Construction History and Structural Preservation', had established cross-disciplinary teaching of engineering history and engineering practice. He specialises in the study of and advice on historic iron structures and, in the German academic tradition, combines his academic post with his involvement with industry. In a future edition, we will publish the laudation given by Roland May and

Volker Wetzck when Lorenz retired from university, which will give an insight into the scope of his work and the respect that he commands.

From the time of William Morris – who set out the principles of conservation in his manifesto (Morris, 1877) at the founding of the Society for the Protection of Ancient Buildings – to the present day, some of the best examples of conservation have been found in the UK. It is thus appropriate and essential that the UK's construction engineering institutions should take a lead on being a forum for recording and disseminating best practice from around the world. Lawrance Hurst and others created this journal in the strong conviction that engineering intervention, whether to enable works to perform for modern needs, or for refurbishment for continued service, is an essential modern sector of construction. It is in writing about projects and the practical research that lies behind them that essential knowledge and skill is recorded and built upon.

Some journals are seen by practicing engineers as the preserve of academics. The Institution of Civil Engineers (ICE) has a very long, indeed the longest, record of the publication of papers on construction engineering research and practice. Being primarily an organisation of and for practicing engineers, its publications are intended to provide relevant support and interest to practicing engineers. In this issue of the journal, we have three excellent examples that demonstrate our current publishing strategy.

In the briefing article, we have Stephen Ray describing the historical context of the construction of St Georges Hall, Liverpool, UK (Ray, 2019). The roof has stood for 170 years and, despite concerns about the feasibility and stability of the arched ceiling expressed at the time of its construction, it is still in use. In *Engineering History and Heritage*, briefing articles provide an opportunity for expression of a wide variety of views. In this example, an experienced engineer uses it to show both an admiration of those who designed and built many years ago as well as a desire that their work should be properly appreciated and understood.

The paper 'Rehabilitation of Brougham Castle Bridge, UK' by David Wiggins, Kiera Mudd and Matthew Healey shows why those in structural restoration, particularly in the UK, are so widely acknowledged (Wiggins *et al.*, 2019). The first two authors are from the designers Curtins and the third from the constructor Metcalfe Plant Hire Ltd. Here we have an example of collaboration between designer and builder in the best historic civil engineering tradition. There is an assessment of damage, including an excellent description of analysis of the load path and an account of how the bridge was restored to use from a situation where it may well have

been condemned to demolition had there not been such a skilled team to take on the work. The paper provides an example and inspiration as well as practical advice for all those who see our built heritage as important.

In the latest of our papers republished from the ICE archive, Deborah Lazarus introduces us to the 1979 paper ‘The Jubilee line: 2. Construction from Baker Street to Bond Street exclusive and from Admiralty Arch to Aldwych’ by A.C. Lyons, a partner of Sir William Halcrow and Partners (Lazarus, 2019). This very detailed paper shows the state-of-the-art of tunneling approximately 40 years ago. It is an important reference for today’s tunnel designers, for anyone working near tunnels in London (i.e. almost any structural engineer in London) and those interested who are in knowing more about tunnel design and construction as the latest underground railway is about to open in London.

Over future issues, we shall continue to publish papers from the ICE archive, selected by experts who recognise their importance for practicing engineers in understanding both historic and new structures. These are remarkable papers, which are readily available from the ICE archive but, when republished with a short introduction explaining their significance, are brought to the attention of those who are not aware of their existence. This is another example of the influence of experts using their knowledge to inform younger and future generations of engineers.

From this issue onwards, *Engineering History and Heritage* will be published online only. Many journals are moving to online publication, however, the timeless nature of much of the content of this journal leads to the need for our subscribers having a permanent record on their shelves. Although there will be no printed edition of each issue, at the end of the year all subscribers can receive a hard copy compendium of the whole year’s publication. We hope and intend that this combination of online journal for rapid and easy access with an annual printed compendium meets the needs of our subscribers.

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