

Editorial

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After serving five years as chair of the Editorial Advisory Panel, and five years before that as a member of the Panel, the time has now arrived for me to step down and hand over the reins to a new chair, Richard Harris.

During my time as chair, my aim has been to produce a journal which serves the needs of the members of the Institution of Civil Engineers (ICE) engaged in working on existing structures – especially historic structures considered to have heritage value. Over the last few years, the journal has published papers on engineering heritage, including ten Country Profiles about civil engineering heritage, on many aspects of extending the life of existing structures, and on engineering history related to work on existing structures. During this time, two papers published in *Engineering History and Heritage* have gained the prestigious Telford Gold Medal for the best paper in the ICE Proceedings (Bartel *et al.*, 2016; Huerta, 2010) and two others gained the Benjamin Baker Medal for the third best paper in the ICE Proceedings (Holzer and Veihelmann, 2015; Pattison, 2014). This is a great achievement.

There is, however, still a long way to go to achieve due recognition for the engineering aspects of our built heritage (Addis, 2017). Considering that about half of all the civil and building engineering work undertaken each year in the UK is on existing structures, it still surprises me that this part of the engineer's work does not yet receive anything like the same attention that is given to new construction.

One reason, perhaps, is that engineers still do not have the same engagement with built heritage as architects do, despite the fact that virtually all conservation work requires significant input from engineers, and the field of industrial archaeology emerged over 70 years ago. In the UK, there are no higher degrees for engineers engaged in work on existing structures, and only very few and intermittent Continuing Professional Development courses. Since 2003, jointly with the Institution of Structural Engineers, the ICE has supported Conservation Accreditation Register for Engineers (CARE). Nevertheless, 15 years later, there are still only about 50 engineers on the register (Avent and Addis, 2014; ICE, 2018a).

A second reason for the meagre attention given to the engineering of existing structures is that many engineers believe that historic structures merit no special treatment – they can be treated to the same application of the principles of engineering science as a new structure. Sadly, many structures have suffered from this assumption. The complexity of assessing how an existing structure is *actually* working and exactly what is the condition of its construction

materials should never be underestimated; many structures have been subject to unnecessary intervention and remedial work, simply because they have not been fully understood.

A third reason is perhaps that few engineering academics (at least in the UK) see themselves as active in the field of existing structures and extending their life. But this can simply be a matter of labels. Much research is being done within conventional departments of civil engineering on existing materials as well as techniques of strengthening and repairing materials and structures to extend their life. In German-speaking countries, there is a well-established academic discipline called *Denkmalpflege* – care of historic monuments – that embraces architectural, historical and engineering aspects of such monuments (ETH Zürich, 2018). Universities in the UK and other countries might benefit from following this precedent.

During the last couple of years, through the support of a grant from the ICE Research and Development Enabling fund, I have compiled the Conservation Information Resource for Civil Engineers (CIRCE) for the ICE's new website, which should be of interest and use to engineers engaged in working on existing structures (Addis, 2016; ICE, 2018b). Hopefully this will help to further the impact of *Engineering History and Heritage*.

Readers who have noted my changing affiliation will be aware that I have been enjoying my first two years of official retirement giving lectures and contributing to research on the history of construction and the conservation of existing structures in several continental universities (Rome, Innsbruck, San Sebastian, Zurich and Brussels). These sojourns have helped me develop a broader understanding of conservation engineering and engineering history in Europe, and I hope this has been reflected in many of the papers we have published.

In conclusion, then, I believe I am leaving my successor with a journal that is in a healthy state and with a growing international reputation. I have much enjoyed my time with *Engineering History and Heritage*, and I wish Richard and others on the Editorial Advisory Panel every success with the future of the journal.

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PAPERS ELSEWHERE IN THE ICE PROCEEDINGS

A regular challenge to placing papers concerning engineering history and heritage and extending the life of existing structures is whether they should appear in the subject journals, devoted, say, to bridges or ground engineering, or whether they should be published in this journal. The answer is, they may appear in either and so it is worth bringing to our readers attention the following papers that were published in other ICE journals during 2017. Thanks are due to Annette Ruehlmann in the library of the ICE for helping compile this list.

BRIDGE ENGINEERING

- Astin D (2017) Waterloo Bridge – structural behaviour and strength. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(1)**: 54–64, <https://doi.org/10.1680/jbren.15.00006>.
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- Cousins DP (2017) Reinforced-concrete beam hinge joint fatigue assessment. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(1)**: 3–13, <https://doi.org/10.1680/jbren.15.00008>.
- Davila DJM, Butler LJ, Gibbons N et al. (2017) Management of structural monitoring data of bridges using BIM. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(3)**: 204–218, <https://doi.org/10.1680/jbren.16.00013>.
- Fang C, Yuan J, Yang S and Zhang J (2017) Performance of corroded bridge piers under cyclic loading. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(4)**: 255–270, <https://doi.org/10.1680/jbren.16.00001>.
- Harvey B and Harvey H (2017) On the service behaviour of masonry viaducts. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(4)**: 248–254, <https://doi.org/10.1680/jbren.15.00031>.

- Hoag A, Hoult N and Take A (2017) Assessment of a bascule lift bridge using digital image correlation. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(3)**: 168–180, <https://doi.org/10.1680/jbren.16.00022>.
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- O’Donnell D, Wright R, O’Byrne et al. (2017) Modelling and testing of a historic steel suspension footbridge in Ireland. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(2)**: 116–132, <https://doi.org/10.1680/jbren.15.00047>.
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- Pimentel M and Figueiras J (2017) Assessment of an existing fully prestressed box-girder bridge. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(1)**: 42–53, <https://doi.org/10.1680/jbren.15.00014>.
- Tamakoshi T, Shirato M and Kamada T (2017) Steel bridge deterioration data in Japan and modelling. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(2)**: 133–146, <https://doi.org/10.1680/jbren.16.00004>.
- Zaid A and Collings D (2017) Transverse assessment of a concrete box girder bridge. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **170(1)**: 14–27, <https://doi.org/10.1680/jbren.15.00018>.

CIVIL ENGINEERING

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FORENSIC ENGINEERING

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MUNICIPAL ENGINEER

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