Editorial

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The following aims and objectives of *Engineering History and Heritage* appear on the journal's website

A great many engineers are nowadays undertaking work on our existing infrastructure and buildings, work which includes extending the life of existing structures, refurbishment, conservation and restoration. Heritage structures often attract particular attention, but these are only the tip of a large iceberg.

Engineering History and Heritage is a unique forum for sharing experience of working on existing structures, from all periods of history, by means of case studies and details of current best-practice approaches to extending the life of existing structures throughout the world.

Working on existing structures requires a different approach from designing and constructing new ones. It is essential to understand the current state of a structure, before proposing interventions and stabilisation. This approach benefits from understanding the materials and construction methods used when the structure was new, as well as the life history of the structure and modifications from its original state, whether to accommodate changes of use or resulting from previous efforts to conserve and refurbish. *Engineering History and Heritage* is a high-quality, internationally refereed journal, published four times a year as part of the Proceedings of the Institution of Civil Engineers. Papers and book reviews are welcome on all aspects of extending the life of existing structures, including the conservation of civil engineering works, infrastructure and buildings, and technical studies of construction materials and techniques that engineers are likely to encounter when working on existing structures. (ICE Virtual Library, 2017)

A number of questions relating to these aims recur in the Editorial Advisory Panel's discussions, especially on the relationship between the history of building and civil engineering and the work of engineers engaged in extending the life of existing structures, in general and, more particularly, on conservation issues relating to engineering heritage.

I have been trying to address the second matter while developing the Conservation Information Resource for Civil Engineers (Circe, 2016), which is described in my Briefing paper in the previous issue of *Engineering History and Heritage* (Addis, 2016).

In a Briefing paper in this issue, I have tried to address the first matter – the relationship between the history of engineering and the

work of the practising engineer (Addis, 2017). In this paper I review some of the papers on the uses of engineering history and add some of my own views. There is surely much more to say on this theme and we would welcome readers' contributions to the discussion.

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- Circe (Conservation Information Resource for Civil Engineers) (2016) See <https://www.ice.org.uk/disciplines-and-resources/best-practice/conservation-resources-for-civil-engineers> (accessed 04/01/2017).
- ICE Virtual Library (2017) Engineering History and Heritage – Author's note. See <http://www.icevirtuallibrary.com/page/jenhh/new-authors> (accessed 04/01/2017).

PAPERS ELSEWHERE IN THE ICE PROCEEDINGS

A regular challenge to placing papers concerning engineering history and heritage 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 bring to our readers attention the following papers that were published in other ICE journals during 2016. Thanks are due to Annette Ruehlmann in the library of the ICE for helping compile this list.

BRIDGE ENGINEERING

- Baecke E (2016) Reconstruction of Blackfriars railway bridge, London, UK. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169**(3): 191–202, <http://dx.doi.org/10.1680/jbren.14.00021>.
- Corbett PW and Watterson TJ (2016) Widening of existing bridges on State Highway 16 in Auckland. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169**(3): 203–214, <http://dx.doi.org/10.1680/jbren.14.00028>.
- Gibbons N and Fanning PJ (2016) Progressive cracking of masonry arch bridges. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169**(2): 93–112, <http://dx.doi.org/10.1680/jbren.15.00009>.
- Hanley C and Pakrashi V (2016) Reliability analysis of a bridge network in Ireland. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169**(1): 3–12, <http://dx.doi.org/10.1680/jbren.13.00026>.
- McKoy R (2016) London Underground – successful outcome of bridge assessment programme. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169**(2): 113–125, <http://dx.doi.org/10.1680/jbren.15.00013>.
- Olaszek P, Casas JR and Świt G (2016) On-site assessment of bridges supported by acoustic emission. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169**(2): 81–92, <http://dx.doi.org/10.1680/jbren.15.00007>.
- Vardanega PJ, Webb GT, Fidler PRA and Middleton CR (2016) Assessing the potential value of bridge monitoring systems. *Proceedings of the*

Institution of Civil Engineers – Bridge Engineering **169(2)**: 126–138, <http://dx.doi.org/10.1680/jbren.15.00016>.

Walsh L (2016) Assessment and strengthening of a Melbourne toll-way viaduct. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169(4)**: 245–259, <http://dx.doi.org/10.1680/jbren.14.00020>.

West C (2016) Assessment of Tame Valley Viaduct. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **169(2)**: 139–154, <http://dx.doi.org/10.1680/jbren.15.00019>.

CIVIL ENGINEERING

Collins J and Smith D (2016) A-frame rocker bearing replacement at Humber Bridge, UK. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **169(3)**: 113–120, <http://dx.doi.org/10.1680/jcien.15.00066>.

CONSTRUCTION MATERIALS

Badr A (2016) Using standard repair methods on recycled aggregate concrete. *Proceedings of the Institution of Civil Engineers – Construction Materials* **169(2)**: 83–92, <http://dx.doi.org/10.1680/coma.15.00009>.

DAMS AND RESERVOIRS

Goff CA, Atyeo MS, Gimeno O and Wetton MN (2016) Dealing with data: innovation in monitoring and operation and maintenance of dams. *Proceedings of the Institution of Civil Engineers – Dams and Reservoirs* **26(1)**: 5–12, <http://dx.doi.org/10.1680/jdare.16.00011>.

Proceedings of the Institution of Civil Engineers – Dams and Reservoirs, Volume 26, Issue 2, Special issue on the 50th anniversary of British Dam Society. See <http://www.icevirtuallibrary.com/toc/jdare/26/2?expanded=26> (accessed 04/01/2017).

ENGINEERING SUSTAINABILITY

Xureb K and Parkin IP (2016) Adapting building structures to new uses in the future. *Proceedings of the Institution of Civil Engineers – Engineering Sustainability* **169(6)**: 233–242, <http://dx.doi.org/10.1680/jensu.15.00043>.

FORENSIC ENGINEERING

Beamish S, El-Belbol S and Ngala V (2016) Maintenance of structural integrity using cathodic protection. *Proceedings of the Institution of Civil Engineers – Forensic Engineering* **169(2)**: 72–80, <http://dx.doi.org/10.1680/jfoen.15.00016>.

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Hodgson RLP, Khan IA, Haynes R and Arnold J (2016) Rapid structural assessment of garment factories in Bangladesh. *Proceedings of the*

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Jones G and Lambert P (2016) Predicting service life from site-accessed corrosion rate data. *Proceedings of the Institution of Civil Engineers – Forensic Engineering* **169(2)**: 53–60, <http://dx.doi.org/10.1680/jfoen.15.00012>.

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Soane A (2016) Learning from experience to avoid collapse. *Proceedings of the Institution of Civil Engineers – Forensic Engineering* **169(4)**: 127–132, <http://dx.doi.org/10.1680/jfoen.16.00004>.

Tanikawa T (2016) Lessons learned from the Great East Japan Earthquake. *Proceedings of the Institution of Civil Engineers – Forensic Engineering* **169(1)**: 14–24, <http://dx.doi.org/10.1680/jfoen.14.00019>.

MARITIME ENGINEERING

Raby A, Bullock GN, Banfi D, Rafiq Y and Cali F (2016) Wave loading on rock lighthouses. *Proceedings of the Institution of Civil Engineers – Maritime Engineering* **169(1)**: 15–28, <http://dx.doi.org/10.1680/jmaen.15.00002>.

STRUCTURES AND BUILDINGS

Alves V, Cury A and Cremona C (2016) On the use of symbolic vibration data for robust structural health monitoring. *Proceedings of the Institution of Civil Engineers – Structures and Buildings* **169(9)**: 715–723, <http://dx.doi.org/10.1680/jstbu.15.00011>.

URBAN DESIGN AND PLANNING

Doyle A (2016) Urban resilience: the regeneration of the Dublin Docklands. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **169(4)**: 175–184, <http://dx.doi.org/10.1680/jurdp.15.00038>.

Stieglitz M and Nefedov V (2016) Refunctionalisation of industrial territories in Saint Petersburg. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **169(1)**: 30–42, <http://dx.doi.org/10.1680/udap.14.00026>.

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