EDITORIAL: May 2013

Editorial

Tony Caccavone CEng, FICE
Heathrow Airport Ltd, Hounslow, UK

Welcome to the May 2013 issue of *Civil Engineering*, the general journal of the *Proceedings of the Institution of Civil Engineers*.

We celebrate in this issue the completion of the tallest building in western Europe, which opened to the public just 3 months ago. At 310 m high and built within the confines of an extremely congested site, The Shard in central London represents a step-change in tall building design and construction.

Parker (2013) highlights a number of innovations that ensured rapid and safe construction of this stunning 95-storey 'vertical city', including building the three-storey basement and core top-down and using modular construction for the 'shard of glass' spire. The result is a unique structure which represents a truly iconic addition to London's skyline.

From the shiny heights of the UK capital we move to the depths of the capital of West Bengal, where we learn how new life has been injected into Kolkata's 130-year-old brick sewer network. Such was the dilapidation of the system that almost five sewer collapses a week were recorded in 2006, triggering a major programme of refurbishment.

Basu *et al.* (2013) describe how the ingenuity of the project team enabled the most critical 26 km of the sewers to be successfully diverted, cleaned and relined while ensuring the economic well-being of 4.5 million people living and working above.

We then go back to the UK for our third paper, where we discover the precise amounts of greenhouse gases emitted for a wide variety of building types and methods being used in the government's £1.5 billion redevelopment of Army accommodation in England.

Amiri *et al.* (2013) set out a holistic approach, considering the carbon dioxide embodied in raw materials through to the 'carbon footprint' of construction workers commuting to sites. This comprehensive analysis highlights some interesting findings, including evidence that modular construction emits 30% less greenhouse gas than traditional construction.

The fourth and final paper in the issue builds on papers we published in *Civil Engineering* 5 and 10 years ago (Hamill and Hodgkinson, 2003, 2008), providing a further update on the image of civil engineering – particularly in schools.

Using a wide range of data and sources, Hamill and Hodgkinson (2013) conclude that civil engineering's reputation still suffers from its boom-and-bust workload cycle when compared with other disciplines. However, much can be done to mitigate this through work experience, school visits to universities and construction-related television programmes.

Finally, I would like to remind readers that all award-winning papers published in *Civil Engineering* and the other 17 journals

which together make up the ICE *Proceedings* are freely available online at www.icevirtuallibrary.com – we publish a full list of these each August.

In January this year I was privileged to chair an excellent lecture given by the authors of an award-winning paper we published in February 2011 entitled 'Jacking the box: a 101 h squeeze under West Coast main line' (Ogborn *et al.*, 2011). The event attracted a large audience at Great George Street and online.

It confirmed for me that it is through our willingness to write and present journal papers that we are able to share our knowledge, experiences and innovations with our colleagues and future generations. I would therefore urge all of you to consider writing for this journal and its sister titles, and similarly ask you to encourage your colleagues to do likewise.

With the collective support of the profession we can continue to aspire to push the boundaries and achieve ever-more successful outcomes. The Shard and the Kolkata sewer projects are outstanding examples of what a difference we as civil engineers can make to our communities and environment. I commend this issue of the journal to you.

References

- Amiri A, Caddock P and Whitehead M (2013) Accounting for the greenhouse gas emissions of construction: a UK case study. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **166**(2): 82–88, <http://dx.doi.org/10.1680/cien.12.00040>.
- Basu NB, Dey A and Ghosh D (2013) Kolkata's brick sewer renewal: history, challenges and benefits. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **166**(2): 74–81, <http://dx.doi.org/10.1680/cien.12.00016>.
- Hamill L and Hodgkinson L (2003) Civil engineering's image in schools—and how to change it. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **156**(2): 78–85, <http://dx.doi.org/10.1680/cien.2003.156.2.78>.
- Hamill L and Hodgkinson L (2008) Civil engineering's image—a five-year update. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **161**(3): 132–137, <http://dx.doi.org/10.1680/cien.2008.161.3.132>.
- Hamill L and Hodgkinson L (2013) Civil engineering's image in the UK – a 10-year update. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **166**(2): 89–95, <http://dx.doi.org/10.1680/cien.12.00041>.
- Ogborn S, Sreeves J and Beech S (2011) Jacking the box: a 101 h squeeze under West Coast main line. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **164**(1): 27–34, <http://dx.doi.org/10.1680/cien.2011.164.1.27>.
- Parker J (2013) Engineering The Shard, London: tallest building in western Europe. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **166**(2): 66–73, <http://dx.doi.org/10.1680/cien.12.00036>.

CALL FOR PAPERS: *Civil Engineering* relies entirely on material contributed by civil engineers and related professionals. Illustrated articles up to 750 words and papers of 2000 to 3500 words are welcome on any relevant civil engineering topic that meets the journal's aims of providing a source of reference material, promoting best practice and broadening civil engineers' knowledge. Please contact the editor for further information.