Editorial

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Welcome to the November 2019 issue of *Civil Engineering*.

The construction industry is one of the most hazardous industries from a safety and long-term health perspective. It has been estimated that in Europe alone there are over 1000 construction-related fatalities annually, more than 800 000 injured and a high incidence of occupation-related ill-health such as musculoskeletal disorders, dermatitis and asbestosis (Stocks *et al.*, 2011).

There also appears to be a lack of adequate discussion on this topic. Suárez Sánchez *et al.* (2017) reported that the number of published papers relating to occupational safety and health in the construction industry was minuscule until two decades ago. The trend has improved since, but the issue of health and safety in construction is yet to become part of the mainstream debate.

I am therefore very pleased that our fourth paper in this issue deals with occupational health management in construction (Jones *et al.*, 2019). The authors suggest a range of interventions based on examples from the Thames Tideway Tunnel project in London, UK. They make a compelling case for a more consistent approach to occupational health management and health surveillance, with better training programmes and sharing of occupational health data. They concede it is easier to raise health management standards in larger projects but argue that good practices need to be universally adopted in small- to medium-sized enterprises to achieve lasting improvement.

Elsewhere in the issue we have papers from China, India and the UK, with subjects ranging from design and analysis to innovation, sustainability and rehabilitation. Our lead paper reports on the world's second longest suspension bridge, namely the spectacular new Second Humen Bridge over the Pearl delta in China (Wang *et al.*, 2019). The structure crosses two waterways with spans of 1688m and 1200m. Innovative features include the use of 1960 MPa ultra-high-strength steel cables, robot welding of cable saddles and installation of an intelligent anti-corrosion system. The authors provide a detailed account of its conceptualisation, design and construction.

The second paper, on the A4232 Eastern Bay link in Cardiff, Wales by Evans *et al.* (2019), shows how a fully incentivised contractor can deliver some seriously innovative solutions. By offering to transfer 80% of any money saved from removing or reducing the extent of planned service diversions added to the target cost, the client enabled the contractor to propose an alternative design solution to replace planned approach embankments with viaducts, which allowed much of the existing sewerage to remain in place and reduced the risk from the poor ground conditions. This urban regeneration

project also ticked a lot of boxes on the environmental and sustainability front, with extensive re-use of excavated material.

The third paper, on Kolkata's 110-year-old elevated water tank (Pal *et al.*, 2019), discusses rehabilitation of the largest steel overhead tank in the world. The authors provide a historic narrative of this great structure, which stoically endured numerous natural disasters but finally succumbed to the corrosive effects of the environment. The paper describes in detail the most recent upgrade, which is currently being carried out while the tank remains operational.

Finally, I would like to express my warm thanks to the entire team of *Civil Engineering* for the fantastic work they have done to bring this issue together. My congratulations go to the authors for the good work in sharing their experiences and knowledge. As you may be aware, you can access all recent papers in the Ahead of Print section online on the journal's homepage. And if you are feeling inspired to write, all the information you need to get started is also on the journal website.

References

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