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Book Review

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Book review

Concrete in Extreme Environments

JW Bull and X Zhou (eds). Whittles Publishing, Caithness, UK, 2018, ISBN 978-1-8499-5327-6), £81.99, 240 pp.

The special nature of this book is given away by its deceptively simple title. It is not just another book about concrete durability, nor is it a book that repeats all that is known about the potential vulnerability of this dominating construction material, together with advice on the possible causes of, and ways of avoiding, its deterioration. There are many existing textbooks that fill that niche. No, this impressive book truly (and literally) 'wears its heart on its sleeve'; its special objectives and purpose are summarised succinctly on the rear cover: 'Indicative case studies of concrete in extreme environments' and 'Gives vital insights to help designers and users of concrete in unusual situations'. This reviewer finds that the book actually does achieve what is promised on the cover, as well as being both enjoyable as a general read and a rich source of information and guidance.

There are 9 chapters, two of which have short appendices, and they each follow a similar, but happily not slavishly identical, structural pattern. After an introduction, the subject in question is largely covered through carefully

selected relevant case studies, each of which is well presented and copiously illustrated with images and diagrams, typically in colour, together with some tables and unavoidable equations. The chapters are each completed by an effective summary of the preceding content, providing clear conclusions and useful key points, followed by a list of all the source references cited. I have only one slight complaint: the overall index is rather limited. Otherwise, the editors and their specialist international authors are to be congratulated for cramming so much practically useful information into a relatively short book, while ensuring the ample coverage of such a wide range of variously common or exceptional – but always 'extreme' – exposure conditions and structure types, from mighty dams to roads, buildings and even sewerage.

I have no hesitation in recommending this book, which will sit well on the 'within easy reach' shelf, alongside the regular 'bibles' consulted by those involved with concrete. However, I must mention two particular reasons for reading and revisiting this book: firstly the short, but hugely entertaining 'Introduction' (Chapter 1) by Maurice Levitt, which includes fascinating personal accounts from his own experience; secondly and perhaps mainly, the multitude of invaluable case studies from a wide variety of locations and circumstances worldwide, which form the core of this splendid work.

Ian Sims