

Book review

PRECAST CONCRETE: MATERIALS, MANUFACTURE, PROPERTIES AND USAGE, 2ND edn.

Maurice Levitt. Taylor & Francis, London, 2007. ISBN 9780-415-26846-2, £89.99, 206 pp.

In the UK construction industry, the eventual arrival of a new edition by this well-known author will be eagerly anticipated by many readers and users. However, this relatively short book evokes a mixture of emotions, ranging from admiration of its deeply personal and unconventional style, through dissatisfaction with its often unbalanced and incomplete treatment, to surprise at some glaring omissions.

Maurice Levitt is a respected concrete technologist and this book is full of valuable guidance, insights and, yes, opinions, all arising from his long experience and unique character. However, too much time is spent, both initially and throughout the book, explaining the ways in which the second edition is different from the first; the matter is of interest to the author, but less so to a new generation of readers, particularly as 26 years separate the two editions. It would have been better for the new book to stand alone in its modern context, rather than being made so obviously an updated version of the original edition.

Readers will either enjoy Levitt's distinctive colloquial style, complete with views and anecdotes, or will find it distracting and unhelpful for technical guidance. There is certainly something refreshing about the author's declared aim to produce 'readable' text, and he is largely successful in that objective, but there are downsides, including the deliberately limited set of notes and references, too many of which only indicate the author's other publications.

Levitt admits that the first edition was intended for UK practice and this new edition struggles to escape from its parochial origins. Apart from recognition of the emergence of harmonised European standards and codes, and one unsatisfactorily short (five pages) chapter on 'hot and cold climates', the book is still rooted in UK practice and experience. Although understanding of the principles explained will stand readers in good stead, a more international coverage would have made the book more attractive to a global audience.

The second edition is structured into 11 chapters, with no appendices, no glossary and only a brief list of notes and references. Broadly, the first three chapters cover materials (ingredients, reinforcement and moulds), and the next four chapters address manufacture (production control, labour-intensive processes, machine processes and accelerated curing). Chapter 8 attempts to extend the book into other climatic (both 'hot and cold') regions, but is much too short to be useful and surprisingly includes no notes or references whatsoever. The next two chapters refer respectively to 'properties and performance' and 'standards, testing and quality', giving the author plenty of opportunities for philosophising and for exercising 'a favourite hobby horse'. Chapter 11 introduces a new topic of 'finishing, repairing and jointing', although this rightly excludes options for upgrading poor-quality concrete. Chapters are modestly and unevenly illustrated with only monochrome images.

Although the chapters are actually packed with practical information and guidance borne of long experience, a short ineffectual index regrettably limits the usefulness of the book as a handbook. Set against this deficiency, Levitt's lucid and provocative writing style makes his text easy to read and understand, once located, and he also helpfully presents checklists of 'problems' and 'guidelines'. Updating an earlier work is never easy and some details will be overlooked. The term 'alkali-limestone reaction' has not been generally adopted and is now known to misrepresent reactions involving carbonate aggregate. One omission is particularly surprising: there is no apparent mention of 'delayed ettringite formation', a problem that has been identified since the first edition and which has especially been found to occur with some precast concrete subjected to accelerated curing.

Readers should certainly consider buying this book. It is an entertaining read, including Levitt's 'pearls of wisdom' on various old and some topical subjects, and does contain a wealth of practical guidance based on experience and common sense, but its flaws limit its usefulness as a completely dependable handbook.

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