


Review

 This substantial report on the state of the art in the field of precast concrete will serve as a useful reference for those interested in the history of its development, says **R.S. Narayanan**.

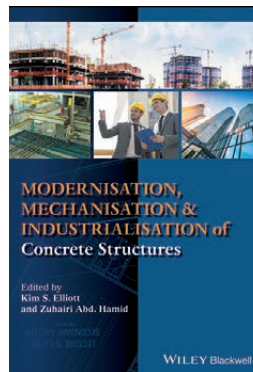
Modernisation, mechanisation and industrialisation of concrete structures

Editors: Kim S. Elliot and Zuhairi Abd. Hamid

Publisher: Wiley-Blackwell

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When this book landed on my doormat to review, I wondered who the target audience was for this magnificent tome running to about 500 pages. After perusal, I have come to the conclusion that the book is intended for all those engaged in the design and construction of concrete structures. It is a report on the state of the art in the field of precast concrete. It traces the history of concrete construction from the 1920s, records the lessons learnt and points the way to exploiting many modern developments to the benefit of society.

Edited by Kim Elliot (who should be familiar to the members of the Institution) and Zuhairi Abd. Hamid, the book is enriched by contributions based on their personal experience from a number of authors from Austria, Switzerland and Malaysia.

When you think of precast concrete, do not limit yourself just to isolated elements, but think of whole structures. The authors are also at pains to point out that the resulting product need not be boring shoebox structures, but attractive exotic buildings, some of which are illustrated, alas only with black-and-white photographs. Before you plunge into the book, be prepared for a tsunami of acronyms.

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I paraphrase the declared objectives of the book:

- exploitation of research and development, and present-day design and manufacturing techniques
- utilisation of Building Information Modelling (BIM) methods and design/detailing software in industrialised building systems (IBSs)
- introduction of automation and robotics in concrete production
- exploitation of industrialisation of off-site production and on-site processes.

Low-cost housing in Southeast Asia is very much in the minds of the authors and initiatives in Malaysia in this regard are discussed.

The book is divided into three parts to reflect the three themes in the title. Individual chapters within each part

discuss in detail the ideas stated above. A number of case studies are cited. A copious number of references is given at the end of each chapter. Structural engineers will find the chapter on precast frame connections and structural integrity interesting.

For all its virtues, I cannot help feeling that this book is mainly for libraries to serve as a reference for those interested in the history of the development of precast concrete. In that role, it will serve a useful purpose.



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R.S. Narayanan is Consultant, Clark Smith Partnership, Consulting Engineers, London. He is a past Chairman of the Eurocode 2 (Design of concrete structures) committee and represents the Institution on a number of BSI committees.