Book reviews

Recycling of demolished concrete and masonry

T. C. Hanson (Editor)

Spon, London, 1992, ISBN 0 419 15820 0

This reviewer has recently considered making a review of the re-use of demolished concrete and masonry. His own sporadic efforts are totally obviated by the appearance of this book, which is a report of RILEM technical committee 37-DRC (Demolition and re-use of concrete). It comprises three reviews. The first, and longest, by T. C. Hansen, reports on recycled aggregate and recycled aggregate concrete 1945–89. It deals with aspects which are important to the engineer: production and quality of recycled aggregate; mechanical properties, durability, properties and production of recycled aggregate concrete; and other

uses. It contains a useful overview of codes and standards. Part 2, by Schulz and Hendricks, covers much the same areas, but extends the treatment to masonry. Part 3, by Molin and Lauritzen, describes the blasting of concrete, including localized cutting and partial demolition.

The book is to be recommended as an authoritative and comprehensive overview of progress in the field.

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High performance fibre-reinforced cement composites

H. W. Reinhardt and A. E. Naaman (Editors)

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There are few other fields of materials science known to the reviewer where scientists have spent so much effort, yet still have such doubts in defining apparently simple words. What, for example is meant by 'reinforcement', 'high performance' and 'structural' (as opposed to non-structural)? However, the book which is under review is not, as might be implied, on the semantics of materials science, but instead deals with cement-based composites. This reviewer's experience of cement composites, admittedly limited, is that they are certainly liable to produce a disorienting effect on the investigator: concepts which appear clearcut in other fields of materials science seem not to apply, or to apply only in ill-defined circumstances, to fibre-reinforced cement composites! Hence the soul-searching.

That said, the book arises from a RILEM-sponsored conference. Clearly, the conference fulfilled a need and was a success. The volume contains 43 papers, grouped according to practical and theoretical aspects. Among the practical aspects are: production technology, process optimization, infiltration techniques, structural applications, and the mechanical and fracture properties of products. More theoretical aspects include the derivation, measurement and interpretation of composite properties, modelling of properties and interface conditions, and the mechanical coupling between fibres and matrix.

Although the large number of papers included gives broad coverage, individual papers are of necessity brief, and authors have been unable to develop their chosen topics in depth. Some lengthier papers, par-