

Book review

HAZARDS AND THE BUILT ENVIRONMENT, ATTAINING BUILT-IN RESILIENCE

L. Boshier (ed.). Taylor & Francis, London. ISBN 978 0 415 42730 2, 382 pp.

This book is a timely addition to the literature on this topic. It deals with many aspects of the built environment in both the developed and the developing world. By definition it is principally concerned with urban infrastructure although there are useful chapters about resilience of rural communities. It consists of a collection of 17 papers written by 28 authors, mostly with a research background, from universities in the UK and New Zealand. The editor is a research fellow in the department of civil and building engineering at Loughborough University.

The bulk of the book is concerned with developed, industrialised, countries and it clearly identifies the difficulties of introducing resilience into the fabric of an established built environment. Many of the papers therefore concentrate upon integrated emergency planning and the need for a shift of approach from 'disaster management' to 'disaster risk management'.

Chapters cover disaster risk management, structural adaption and repair of property, community-based risk-reduction measures and integration of resilience into construction practice. The prime audience for the book is likely to be research students and academics who will find the content useful as course material and background reading.

The papers are unlikely to be of great use to practising engineers as each paper addresses the topic from an academic viewpoint. The practitioner will however derive real value from the extensive references, more than 700 papers are cited, some

drawn from ICE *Proceedings* including *Municipal Engineer*. The papers cited appear to list most, but not all, of the key papers published in recent years. Unfortunately the references are only presented by author name, which is appropriate for paper citation, but less than useful for a practising engineer seeking information by a subject or topic reference. Until this omission is rectified, practitioners will be better served by using resources such as www.icevirtuallibrary.com as a search facility.

The opening chapters contain a useful discussion about the nature of disaster risk management; in particular whether natural disasters are really all that 'natural'. Case studies are quoted to show that the disaster experienced was entirely predictable because of the circumstances of location (such as building on a flood plain), lack of maintenance or insufficient seismic measures in design. The only unknown aspect about the disaster being discussed was the exact timing of the event. For example, flooding should not be unexpected, merely unpredictable.

A key theme throughout is that poverty increases vulnerability to disaster and poverty reduction is the key to resilience. In the past decade more than 6000 disasters have affected more than 2.5 billion people: drought, flood, storm and earthquake being the most significant. Overwhelmingly the people most affected were the poor and marginal in society. Estimates show that the number of people at risk from flooding is expected to double by 2050 and again it is the poor and marginalised who are most at risk. This is not to blame the poor, they often know the risks but infrastructure is rarely, if ever, designed for them.

IAN JENKINSON