Book review

Urban land: degradation, investigation, remediation. D. D. Genske. Springer Verlag, 2003. 333 pp. ISBN 3 540 43845 9. £70/€99.95.

This is a substantial text on aspects of urban land. In scope and content, it goes far beyond many works on the subject. This breadth of approach stems in part from the author's experience: Dr Genske studied civil engineering and geology in Germany and the USA, and has taught and researched at the Technical University Delft, the Swiss Federal Institute of Technology in Lausanne, and the University of Kyoto, Japan.

The book is a scholarly work, profusely illustrated with scenes from both desirable and degraded urban environments. Usefully, these photographs can also be downloaded from a related website.

The book has three principal themes: degradation, investigation and remediation. The section on degradation has chapters on the impacts of: producing goods; disposing of waste; extracting resources; and warfare (considering both the primary impacts of warfare and also the secondary impacts from armies of occupation). The discussion of warfare impacts considers not only historic conflicts but also the contamination produced by more recent conflicts, including the 1990 bombing of Pancevo, Yugoslavia—a sobering demonstration of the long-term contamination produced by bombing immediate strategic targets.

The second section considers investigation strategies, desk studies, field reconnaissance and field investigation. There is very considerable breadth. For example, the chapter on field investigation considers geophysical, seismic, gravity and magnetic surveys as well as the more common borehole and trial pitting techniques. inevitably, the depth of the discussion suffers, but the text provides a useful introduction to

the basics, plus valuable case histories indicating what can be achieved.

The section on remediation includes an introductory chapter entitled 'Restoring urban land versus brownfield aesthetics: what do we want from change of use of urban land?'. There is then a discussion of all aspects of remediation, from initial site clearance through to specialist remedial processes such as reactive barriers and natural attenuation. The technology reviews are rather brief, but there are useful diagrams and illustrations. The main text concludes with a chapter on sustainable urban land recycling, which provides an insight into the author's 'take' on sustainability.

The book has five appendices

- (a) a discussion of 'tools of statistics', which includes a full discussion of Bayesian statistics
- (b) a list of the main contaminant groupings typical of contaminated land—useful when preparing lists of analytes for laboratory testing
- (c) a review of bioremediation
- (d) the main subject index
- (e) an index of 'locations'—the sites of the case histories.

Overall it is a wide-ranging text incorporating a wealth of knowledge. Those involved with the management of contaminated land may read this text to widen their perspectives; too often, contaminated land is seen as purely a technical problem.

There are a few criticisms: occasional typographical errors, and unnecessary hyphens presumably left in the text from draft versions where line breaks were differently placed. Also, the author has taken some of the case histories from published papers. The result is that, on occasion, the reviews lack the perspective of first-hand experience of the issues.

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