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Book reviews

Geomorphology and Ground Water, A.G. Brown (Editor), John Wiley and Sons, Chichester, UK. Hardcover, ix + 213 pp., £45, 1995 . ISBN 0-471-95754-2.

This book contains ten chapters, nine of which are based on presentations made at the first joint meeting of the British Geomorphological Research Group and the Hydrogeology Research Group of the British Geological Society in 1993. The topics dealt with are: a selective review of recent research in the area of overlap between hydrogeology and geomorphology (A.G. Brown and C. Bradley); groundwater flow and quality in an alluvial aquifer recharged from river bank infiltration (T. Grischek et al.); modelling of water table fluctuations in a small flood plain bog (C. Bradley and A.G. Brown); river–aquifer interactions where runoff flows into channel bed gravels and re-emerges downstream (I.P. Maddock et al.); landform–groundwater interactions in karst terrain (P. Hardwick and J. Gunn); the origin and age of karstic depressions in kaolinised saprolite associated with lateritisation (M.J. McFarlane et al.); a critical discussion of the usage of the terms karst and pseudokarst (P.L. Younger and J.M. Stunell); the role of perennial lakes in shallow depressions in groundwater recharge (K.M. Ahmed and W.G. Burgess); third world development implications of understanding landform–groundwater interrelationships (R.C. Carter) and a groundwater drilling campaign based on an understanding of hydrogeological provinces (J.J. Burke).

The editing of a collection of symposium presentations is a challenge because there are always missing pieces. The editor has to decide whether to request more contributions to fill in such gaps, or to provide specific commentary on the importance of the missing pieces, or to write a major chapter on the state of the art. In this case the editor has chosen the third option, which is the most difficult but probably the most effective if successfully accomplished.

I will confine my review to Chapter 1 by Brown and Bradley, as the level of success of the book as a coherent whole depends on it, Chapter 4 by Maddock et al. because of the intrinsic difficulty and ingenuity of the research, Chapter 6 by McFarlane et al. as the most interesting landscape scale geomorphology, Chapter 7 by Younger and Stunell as an example of a stimulating discussion of a semantic question and Chapter 9 by Carter as the most original application of both hydrogeologic and geomorphic theory to an urgent water resource problem.

Brown and Bradley focus their review on research since 1988–1989, and in this respect the chapter is most useful. A North American reader will have difficulty with the claim that this book marks "a broadening of interest by geomorphologists in groundwater and a broadening of interest by hydrogeologists in geomorphology"

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