



Geological *Magazine*

VOLUME 133

NUMBER 6

NOVEMBER 1996

CAMBRIDGE UNIVERSITY PRESS

Geological Magazine

EDITORS

C. P. Hughes, N. H. Woodcock, I. N. McCave,
M. J. Bickle

ASSISTANT EDITOR

Mrs J. M. Holland

EDITORIAL BOARD

Professor J. S. Bridge, *Department of Geological Sciences and Environmental Studies, Binghamton University, PO Box 6000, Binghamton, NY 13902-6000, USA.*

Dr P. L. Gibbard, *Department of Geography, University of Cambridge, Downing Place, Cambridge CB2 3EN, UK.*

Dr K. J. McNamara, *Department of Earth & Planetary Sciences, Western Australian Museum, Francis Street, Perth WA 6000, Australia.*

Professor R. D. Nance, *Department of Geological Sciences, Ohio University, 316 Clippinger Laboratories, Athens, Ohio 45701-2979, USA.*

Dr A. J. Reedman, *British Geological Survey, Keyworth, Nottingham NG12 5GG, UK.*

Dr J. R. Wilson, *Laboratoriet for Endogen Geologi, Geologisk Institut, Aarhus Universitet, DK- 8000 Aarhus C, Denmark.*

Professor J. A. Wolff, *Department of Geology, The University of Texas at Arlington, UTA Box 19049, Arlington, Texas 76019, USA.*

Dr B. W. D. Yardley, *Department of Earth Sciences, University of Leeds, Leeds LS2 9JT, UK.*

The *Geological Magazine* was originally established in 1864 and has been published continuously ever since. It covers the whole field of earth sciences, has a worldwide readership and has a particular strength in providing a niche for interdisciplinary papers and papers that would be of interest to geologists from many different specialities. Papers of any length are considered, provided that the length is justifiable.

The *Magazine* publishes both original and review articles, rapid communications, discussions of papers which have already appeared in the *Magazine*, book reviews, a list of publications received, and occasional notices from the International Commission on Zoological Nomenclature.

There are no page charges for papers published in the *Magazine*.

© Cambridge University Press 1996

Information on *Geological Magazine* and all other Cambridge journals is available on <http://www.cup.cam.ac.uk/> and in North America on <http://www.cup.org/>.

Geological Magazine (ISSN 0016-7568) is published every two months in January, March, May, July, September and November. Six parts form a volume.

The subscription price (excluding VAT) of volume 133, 1996, is £166 (US \$298 in the USA, Canada and Mexico) including postage. Students (who must get a statement signed by a tutor) may subscribe at the reduced rate of £38 (\$72); separate parts cost £29 net (US \$52 in the USA, Canada and Mexico) plus postage. Orders, which must be accompanied by payment should be sent to any bookseller or subscription agent, or direct to the publisher: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU. Subscriptions in the USA, Canada and Mexico should be sent to Cambridge University Press, Journals Department, 40 West 20th Street, New York,

NY 10011-4211, USA. EU subscribers (outside the UK) who are not registered for VAT should add VAT at their country's rate. VAT registered subscribers should provide their VAT registration number. Japanese prices for institutions (including ASP delivery) are available from Kinokuniya Company Ltd, P.O. Box 55, Chitose, Tokyo 156, Japan. Periodicals postage paid at New York, NY, and at additional mailing offices. *POSTMASTER*: send address changes in USA, Canada and Mexico to *Geological Magazine*, Cambridge University Press, 110 Midland Avenue, Port Chester, New York, NY 10573-4930, USA.

Back Volumes: Vols. 1-60 and 112 out of print. Vols. 61-111: Enquiries to Wm Dawson & Sons Ltd, Cannon House, Folkestone, Kent. Volumes 113 onwards are available from Cambridge University Press.

Copying: This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, Mass. 01923, USA. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to C.C.C. of the per-copy fee of \$11.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0016-7568/96 \$11.00 + .10.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge or the American Branch of Cambridge University Press.

Claims for missing issues can only be considered if made immediately after receipt of the subsequent issue.

Advertising: Details of advertising in *Geological Magazine* may be obtained from the publisher.