

papers are 10–20 pages long, although there a few longer ones. As yet no review articles, book reviews or editorials have appeared.

The journal is nicely produced — format is pleasing, illustrations are clear and the paper quality is very good. There is some room for improvement, however. Publication time for papers could be shortened from its present average of about a year, and the number of them in each issue could be increased from the present level of four or five. But my only serious complaint is the high cost for

private subscribers, especially those in the United States. Against that, contributors benefit from 50 free offprints, with reasonable charges for larger numbers.

It is clear that there is a need for a journal of this type, and that *Climate Dynamics* has the support of the most prominent members of the community. It promises to be an important addition to the list of climate and interdisciplinary research publications. □

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## Period coverage

Rhodes W. Fairbridge

**Journal of Quaternary Science.** Editor J.J. Lowe. Longman. 3/yr. UK £79, US \$158, elsewhere £83.

A NEW journal dealing with Quaternary science — is not the area, like so many others, already abundantly supplied with outlets for our genius? Even in these days of overwhelming quantities of scientific papers, the answer is 'no'. With the pages of the high-profile, general journals of science closed to all except the most original, topical and closely worded contributions, there is still a tremendous need for space for the more specialized, the more regional and the more esoteric contributions.

Editors and reviewers must constantly remind themselves that the 'modest note' of today may contain that germ of an idea which blossoms a few decades later into the central axiom of a new theory. To my great delight I recently came across a fundamental paper on rainfall in the eighteenth century, in which the author recognized the 18.6-year lunar declination linkage (through atmospheric pressure). The publication date? 1832! Yet it is only during the past decade that this concept has been independently rediscovered. For editors, the moral of the story is clear: their duty is to sift wheat from chaff, but to reject a precious grain may verge on mortal sin. And if that grain is passed over by one publication, there ought to be plenty of other places for it to take root.

I for one welcome *Journal of Quaternary Science*. The Quaternary encompasses far more than just a geological period, although its scientific understanding rests squarely on the fundamental laws and axioms of geology. It demands astonishing interdisciplinary study, which explains the diversity and abundance of journals that accept papers relating to the subject. The newcomer has a place among them.

The journal is clearly the child of the

(British) Quaternary Research Association, although its intent is avowedly international; besides the British editorial board, it has an international advisory panel that includes Americans, Scandinavians and others, although none at all from the continental EEC area. So this is a rather anglophone club; let us hope the European integration of 1992 will also bring with it enriched intellectual co-operation.

Two numbers of *Journal of Quaternary*



*Science* were generated annually in 1986 and 1987, but three are promised for 1989. Style is orthodox and both editorial control and production are first class. Most of the papers are interesting and readable, and the illustrations are excellent and abundant. There are also some useful book reviews.

All this adds up to make a prominent journal that is likely to survive the critical test period (usually three years to make or break). Copies should be found in all libraries of geology, geography and botany, as well as in offices of environmental management and survey. The subscription rate is high — not surprisingly, given the production quality and the specialist audience — but a more adventurous (global) editorial thrust might expand the readership and, perhaps, bring down the price. Likewise, the inclusion of a calendar of forthcoming events and news of INQUA, and Quaternary IGBP activities could broaden the journal's appeal. □

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## It's a small world

Lee Kump

**Global Biogeochemical Cycles.** Editor James J. McCarthy. American Geophysical Union. 4/yr. US \$105, elsewhere \$135 (institutional); US \$34, elsewhere \$64 (personal).

THE transport and transformation of chemical species during Earth surficial processes can be described by the concept of biogeochemical cycles. Their study has recently taken on a new and global significance because of the pressing need to understand the consequences of increasing human involvement in the Earth's system.

The stated purpose of *Global Biogeochemical Cycles* is to stimulate collaboration between marine, atmospheric, geological and biological scientists, and to improve our understanding of the linkages between Earth's physical climate and the biosphere. Indeed, Vol. 1 of the journal includes authors from marine science, geoscience, chemistry, environmental science, applied science, physics, agriculture, biology and meteorology departments, as well as from industry and government laboratories. Of the 26 papers published in 1987, almost half were written by co-authors from different disciplines.

According to the index of the first volume, the general topics covered (and the number of pages devoted to them, with some papers cross-listed) include atmospheric composition and structure (202), biological and chemical oceanography (158), general oceanography (100), meteorology and atmospheric dynamics (72), physical oceanography (24), marine geology and geophysics (18), hydrology (18) and public issues (14). Terrestrial systems don't receive separate billing, but 20 per cent of the articles describe land-atmosphere interactions.

*Global Biogeochemical Cycles* apparently has had some problems getting off the ground. A third of the papers display acceptance dates that postdate the nominal publication date by a month or more. The journal's survival will depend crucially on a rapid improvement in the promptness of publication and distribution.

The quality of the papers that have been published is high, and the camera-ready copy is clear and well reproduced. The journal meets an urgent need, in that it is a place to publish and to read interdisciplinary papers addressing global biogeochemical problems. The scientific community can either help it to flourish, by submitting more high-quality manuscripts, or condemn it, by publishing in conventional, disciplinary journals. □

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