

Mineral deposits

Mark Hannington

Exploration and Mining Geology. Editors J. F. Davies, H. L. Gibson and R. E. S. Whitehead. Pergamon. 4/yr. \$170, £110 (institutional); \$56, £36 (personal). (Membership rates on application to publisher.)

EXPLORATION AND MINING GEOLOGY is a quarterly publication of the Geological Society of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). The need for a publication devoted to the geology of mineral deposits was identified by the geology division of CIM in the early



Tin men — mining for tin on Cerro Rico, “the rich mountain”, in the Bolivian highlands, once a major source of silver. From *World Press Photo 1993* (see page 569).

1980s, leading to the introduction of this journal in 1991. The journal is intended to provide the most up-to-date geological information available on important mineral deposit types and on the application of geochemistry, geophysics and geomathematics to the exploration and development of these resources.

In its first full year of publication, the journal has published more than 40 scientific papers of interest to the research geologist and to mining and exploration geologists alike. The papers are thoroughly reviewed and edited, and are of an excellent standard. Each of the first five issues contains eight or nine papers on topics as wide-ranging as the geology of individual deposits, new techniques in mineral exploration, exploration strategies and case histories, mining geology, process mineralogy, methods for calculating ore reserves and environmental geology applied to problems in mining. Three collections of papers arising mainly from conference proceedings have dealt with specific topics relevant to today's mineral industry, including mineralization

in black shales, base metal deposits in eastern Canada and recent advances in diamond exploration. Future special issues will focus on specific mineral deposit types, important mineral districts and the mineral resources of different countries. While striving to provide information on the latest developments concerning mineral deposits in Canada, the new journal has also attracted papers on mining and exploration in other regions (such as China, Eastern Europe and Australia). Eight papers have come from outside Canada, and an editorial board with several international representatives will ensure future contributions from other countries. About two-thirds of the papers contain detailed field descriptions of the geological settings of deposits.

Nearly half of the papers are contributions from professional geologists active in the mineral industry. This is a significant departure from many journals dealing with ore deposits and an important opportunity for the journal: much of the critical information on exploration, mining and the geology of mineral deposits resides in the private sector. The willingness of today's mineral industry to open its doors reflects a growing appreciation of the importance of sharing this information in order to meet the rising demand for many metals and minerals in the face of declining reserves. This challenge will require improved geological models and exploration strategies for a variety of mineral deposits. It also demands greater communication with an international audience of mineral deposits geologists, geochemists and geophysicists. *Exploration and Mining Geology* is well-positioned to serve these needs. □

Mark Hannington is at the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8, Canada.

Science in action

Michael B. Usher

Ecological Engineering: Journal of Ecotechnology. Editor-in-chief William J. Mitsch. Elsevier. 4/yr. DFL 361, \$195.

It is unusual to launch a new journal with a special issue devoted to a narrow theme within a broad subject area. A June 1991 workshop on “The role of created and natural wetlands in controlling nonpoint source pollution” provides the ten papers for the first two parts of *Ecological Engineering*. One therefore needs to explore the subject matter of the other eight papers, and three short communications, that complete volume 1 to gain an idea of what subjects the new journal covers.

The editor-in-chief, W. J. Mitsch, says: “Ecological engineering and ecotechnology combine basic and applied science for the restoration, design, and construction of aquatic and terrestrial ecosystems”. The balance between aquatic and terrestrial environments is maintained, with papers on such diverse subjects as metal removal by wetland mesocosms, tertiary wastewater treatment using the root-zone method, land reclamation at a phosphate mine, and an expert system for establishing diverse wildflower grasslands. These glimpses of the subject matter demonstrate that papers will be relevant to many applied scientists.

The journal is attempting to gain an image that is not too academic. In the first four parts there is one letter to the editor (about large-scale transportation projects), one book review (on aquaria and how to build living ecosystems), one obituary (for Professor Ma Shijun) and announcements about future conferences. Such peripheral material is clearly important, and as the journal progresses the editors would be wise to focus on such information — it is likely to be of considerable benefit to applied scientists working on practical projects rather than to those in universities.

But, of course, the big question is “do we need such a journal?”. Are there not already sufficient journals on terrestrial and aquatic conservation, environmental management or applied ecology? The new feature of this journal is the bringing together of the disciplines of engineering and ecology. It is true that very few of the first 18 papers actually achieve this merger. Perhaps that is to be expected in volume 1; the success of the journal will depend on how these subjects are synthesized in later parts, and how this new field will affect engineering work. □

Michael B. Usher is at Scottish Natural Heritage, 2 Anderson Place, Edinburgh EH6 5NP, UK.