

CORRECTION

We regret that, in the article by Yakushkin and Barr on 'The introduced musk-oxen of Poluostrov Taymyr' (*Polar Record* 24 (151): 321–24, 1988), a passage was lost in transcription from the paragraph on p. 323 headed 'Herding and population'. The following replaces lines eight and nine:

expanded enormously. By the start of winter a typical herd expands to 40–65 individuals. Adjacent herds, groups and single bulls merge with the main herd; as a result it now includes several dominant and subdominant bulls. No serious conflict occurs between the bulls during winter, however.

At the start of the calving period a typical large herd

breaks into two to three herds, each of 10–12 animals, while many adult and immature bulls leave the herds. Each of the newly-formed herds consists, as a rule, of a dominant bull and a number of cows of different ages, along with yearlings and calves. After the end of calving these herds break up even further. Sometimes all the bulls, or else just the dominant bull, will leave the herd for a short time. The dominant bull always rejoins the herd prior to the start of the rut however. In August and September herd sizes range between four and 52 individuals.

The productive pastures in the Bikada basin have led to the cows reaching sexual maturity at an early age; they start to participate in the rut at the age of two years and produce calves annually thereafter. In 1985 for the first

Reviews

DEALING WITH DATA

BUILDING DATABASES FOR GLOBAL SCIENCE. Mounsey, H. and Tomlinson, R. F. (editors). 1988. London, Taylor and Francis. 419 p, hard cover, illustrated. ISBN 0-85066-485-3. £35.00

These 27 papers, representing the first meeting of the International Geographical Union Global Database Planning Project, held at Tynney Hall, Hampshire, UK, 9–13 May 1988, discuss the creation and management of global-scale environmental information systems. Topics cover geographic information systems, automated cartography, spatial data management, developments in remote sensing, and improvements in computer technology for handling spatial data in bulk.

Roger Tomlinson's introduction is followed by a section of review papers, mostly by academics, and a slightly longer section of applications papers, mostly on the activities of agencies that handle environmental information. A summary by Michael Goodchild and a retrospective view of the papers by Terry Coppock (with comments made by rapporteurs throughout the sessions) complete the volume. The review papers address problems in creating global spatial databases, including copyright of databases, military or economic sensitivity of information, the issue of error in spatial data, identification of needs of database users, design of database structures, and the uniqueness and integration of diverse data sources. Their approach is generally sobering and critical, alerting the unwary to the many problems yet to be solved. Applications papers are generally less critical and more descriptive of experience in building, using and maintaining databases. Global data management in the USA, USSR and China are reviewed, as well as the activities of international agencies; North America and the UK appear to retain strong leads in this field. The urgent need for international standards of data quality, format and ex-

change is stressed. For me the most surprising omission from this section was discussion of the European Space Agency ERS-1 satellite programme, which will radically affect availability of global data in the near future.

Polar regions, which occupy some 15% of the Earth's surface and play major roles in global oceanic and atmospheric processes, receive little mention despite their importance and potential. An Antarctic Geographic Information System perhaps sponsored by SCAR, or a similarly-organized Arctic system, could make vital contributions to global databases. The book, which appears less than five months after the end of the conference, is nevertheless a valuable review of the current state of global spatial information handling, and of interest to all who are involved in using geographic databases, including polar scientists. (Colin Harris, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

AMUNDSEN'S LANTERN SLIDES

THE AMUNDSEN PHOTOGRAPHS. Huntford, R. (editor). 1987. London, Hodder and Stoughton. 199p, illustrated, hard cover. ISBN 0-340-41280-1. £17.95.

Among the exhibits received by the organizers of an exhibition in Vadsø, north Norway, to commemorate the sixtieth anniversary of Roald Amundsen's airship flight on Norge to Teller, Alaska, via Spitsbergen and the North Pole, were some memorabilia from the widow of the explorer's nephew. One item, a box marked 'Horlicks Malted Milk Tablets' turned out to contain not field rations but over 200 of Amundsen's original lantern slides, apparently the only more or less complete set to have survived. In this attractively produced volume a selection of the slides — cracks, scratches and all — has been reproduced to illustrate a summary account by Mr Huntford of the

great explorer's expeditions, namely through the North-west Passage (1903-05), to the South Pole (1910-12) and finally a voyage on *Maud* along the coast of Siberia traversing the Northeast Passage (1918-19).

In contrast to the easy professionalism of the text, the photography is expectably the work of amateurs; pruned to the basic essentials. Amundsen's expeditions never boasted a Ponting or a Hurley. The author however has taken pains to identify and describe each photograph in detail pointing out just the sort of detail to which Amundsen himself would likely have made reference in his lectures. Thus a fairly commonplace photograph of the kitchen at Framheim takes on an added dimension when it is explained that the cubicle doubled up as an instrument repair workshop, thus accounting for the various instruments hanging on the wall, each of which is carefully identified. How then did the British public react to the slides and the lecturer? Mr Huntford touches on this in his introduction. A young schoolgirl found Amundsen's Norwegian accent 'simply killing', the slides being 'mostly coloured and simply lovely'. Lady Scott, rather sourly, found the pictures 'very poor, and many of them faked — painted etc.'. As for Amundsen, he, like his rival Scott, did not find public appearances at all congenial. Cash flow problems meant that he could never entirely dispense with 'trailing round the lecture trail'. This may account, the author suggests, for Amundsen's increasing bitterness in later years. Undoubtedly the man never received his due acclaim. Mr Huntford, with his second book on the subject in ten years, is clearly set on redeeming it. (H. G. R. King, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

MAWSON'S DIARIES

MAWSON'S ANTARCTIC DIARIES. Jacka, F. and Jacka, E. (editors). 1988 London, Unwin Hyman. 414p. illustrated, hard cover. ISBN 0-04-320209-8. Not priced.

The pride of the Mawson Institute in the University of Adelaide, Southern Australia, are the archives of Sir Douglas Mawson himself, a collection of diaries, notebooks, correspondence and personal papers, together with a major photograph collection and some Antarctic artefacts. Mawson's Antarctic diaries constitute the jewel in this crown and it has been the ambition of the Institute's Director, Dr Fred Jacka, since his appointment in 1965, to publish a scholarly edition of this important historical material. Now, thanks to the Institute's former Secretary, Edna Sawyer, who is responsible for the transcription, and to the devoted help of Eleanor Jacka and others the work is completed.

The papers transcribed in this volume consist of eight notebooks and other papers covering Shackleton's British Antarctic Expedition 1907-09, the Australasian Antarctic Expedition 1911-14, and the British, Australian and New Zealand Antarctic Research Expedition 1929-31. The

diaries are in essence field notes not intended for publication as such. They are, to quote Dr Jacka 'in content, style and tone the records of a man of action'. They are not in the least bit, therefore, reminiscent of the diaries of say R. F. Scott or E. A. Wilson; there are no purple passages and little personal introspection or emotional outburst. Nor is there a great deal of comment on fellow expeditioners, except on the occasions when Mawson's carefully planned scientific programmes or the safety of the expedition are at stake. Sydney Jeffries, the all-important wireless operator on the AAE 1911-13, who suffered a midwinter breakdown, gave Mawson much cause for concern. Likewise Captain John King Davis on BANZARE, 1929-31, who became in Mawson's words 'mentally strained', went out of his way to obstruct Mawson's every wish. The leader's preoccupation with this ongoing guerilla warfare very much sours the final pages of the journal.

Expectably field notes, often written in uncongenial conditions, cannot make for absorbing reading. Where Mawson's diary entries score is in their very immediacy and their occasional revelation of personal feelings in moments of stress and conflict. Readers already versed in Mawson's adventures will tend to turn to the account of the Far Eastern sledge journey of 1912-13 in which Mawson's two companions, Lieutenant B. E. S. Ninnis and Dr Xavier Mertz died in dramatic circumstances, and Mawson himself only just managed to reach winterquarters more dead than alive. Ninnis's disappearance with the sledge and the precious food and equipment is recorded in careful detail. One can imagine what Scott's reaction might have been. All Mawson allows himself is 'May God help us'. Mertz's death is made to seem even more terrible by the almost clinical objectivity of Mawson's comments: 'Death due to exposure finally bringing on a fever, result of weather exposure and want of food. He had lost all skin of legs & private parts. I am in the same condition ...'. Further on he is sufficiently collected to write: 'I greatly regret my inability to set out the coast line as surveyed for the 300 miles we travelled and [record] notes on glaciers and ice formations etc ...'. Science is what mattered most to Mawson, even in extremis, as is made clear throughout these pages. He was not only a magnificent leader but an outstanding pioneer of Antarctic science and discovery.

This work is a masterpiece of devoted editing. There is an excellent introduction to Mawson the man and his expeditions, based on the writings of those closest to him, especially his wife Paquita. The notebooks themselves are helpfully tied together with linking narrative, and illustrated throughout with a selection of Frank Hurley's splendid photographs, some reproduced here for the first time. Appendixes list expedition personnel, technical terms and place-names, cloud and wind notation, ice terminology and maps. The editors are to be congratulated on an historical source book of the first importance, constituting a worthy monument to Australia's greatest