

- ¹ Crawford, A. R., and Campbell, K. S. W., *Nature Physical Science*, **241**, 11 (1973).
- ² Sprigg, R. C., in *Sir Douglas Mawson Anniv. Vol.*, 153 (Univ. Adelaide, 1953).
- ³ Noakes, L. C., in *Rep. 20th Internat. Geol. Cong., Mexico 1956, El Sistema Cambrico su Paleogeografia Y el Problema de su Base*, **2**, 213 (1956).
- ⁴ Mawson, D., *Aust. J. Sci.*, **19**, 162 (1957).
- ⁵ Madigan, C. T., *Trans. Roy. Soc. S. Austral.*, **56**, 71 (1932).
- ⁶ Öpik, A. A., *Rep. 20th Internat. Geol. Cong., Mexico 1956, El Sistema Cambrico su Paleogeografia Y el Problema de su Base*, **2**, 239 (1956).
- ⁷ Daily, B., *Rep. 20th Internat. Geol. Cong., Mexico 1956, El Sistema Cambrico su Paleogeografia Y el Problema de su Base*, **2**, 91 (1956).
- ⁸ Thomson, B. P., *Trans. Roy. Soc. S. Austral.*, **94**, 193 (1970).
- ⁹ Campana, B., *J. Geol. Soc. Austral.*, **2**, 47 (1955).
- ¹⁰ Campana, B., and King, D., *S. Austral. Geol. Surv. Bull.*, **34**, 133 (1955).
- ¹¹ Glaessner, M. F., and Parkin, L. W., *J. Geol. Soc. Austral.*, **5** (2), 163 (1958).
- ¹² Talbot, J. L., *Geol. Assoc. Canad. Spec. Pap.*, **5**, 59 (1969).
- ¹³ Daily, B., and Milnes, A. R., *Trans. Roy. Soc. S. Austral.*, **97** (in the press).
- ¹⁴ Stuart, W. J., and von Sanden, A. T., *J. Austral. Petrol. Explor. Assoc.*, **12** (2), 9 (1972).
- ¹⁵ Geological Society of Australia, *Tectonic Map of Australia and New Guinea 1 : 5,000,000* (1971).
- ¹⁶ Daily, B., *Centre for Precambrian Research, Univ. Adelaide, Spec. Pap.*, **1**, 13 (1972).
- ¹⁷ Daily, B., and Milnes, A. R., *Search*, **2**, 431 (1971).
- ¹⁸ Daily, B., and Milnes, A. R., *Search*, **3**, 89 (1972).
- ¹⁹ Smith, R., and Kamerling, P., *J. Austral. Petrol. Explor. Assoc.*, **9** (2), 60 (1969).
- ²⁰ Wopfner, H., *Trans. Roy. Soc. S. Austral.*, **93**, 169 (1969).
- ²¹ Daily, B., and Forbes, B. G., *Aust. NZ Assoc. Adv. Sci., Geol. Excursions Handbk, Sec. 3*, 23 (Adelaide, 1969).
- ²² Kreig, G., *J. Austral. Petrol. Explor. Assoc.*, **9** (2), 8 (1969).
- ²³ Daily, B., *Trans. Roy. Soc. S. Austral.*, **90**, 190 (1966).
- ²⁴ Coats, R. P., *Rep. Invest. Geol. Surv. S. Austral.*, **26**, 53 (1964).
- ²⁵ Dalgarno, C. R., and Johnson, J. E., *Amer. Assoc. Petrol. Geol. Mem.*, **8**, 301 (1968).
- ²⁶ Wopfner, H., *Amer. Assoc. Petrol. Geol. Bull.*, **54**, 2395 (1970).
- ²⁷ Thomson, B. P., in *Handbook of South Australian Geology*, 268 (Geol. Surv. S. Austral., 1969).
- ²⁸ Corbett, K. D., Banks, M. R., and Jago, J. B., *Nature Physical Science*, **240**, 9 (1972).
- ²⁹ Corbett, K. D., *Sedimentology*, **19**, 99 (1972).
- ³⁰ Banks, M. R., *J. Geol. Soc. Austral.*, **9**, 127 (1962).
- ³¹ Department of Mines, Tasmania, *Geol. Atlas*, 1-mile series, Quamby Sheet (1969).
- ³² Department of Mines, Tasmania, *Geol. Atlas*, 1-mile series, Beaconsfield Sheet (1971).
- ³³ Wells, A. T., Forman, D. J., Ranford, L. C., and Cook, P. J., *Bull. Miner. Resour. Austral. Bull.*, **100**, 222 (1970).
- ³⁴ Thomson, B. P., *Ann. Rep. (1971-72) Director Mines, Dept Mines, S. Austral.*, 84 (1972).

“virtually flat lying” but, significantly, slightly folded. Evidence of an Ordovician shear in north-east Tasmania would be obscured by later events.

It is fruitless on the basis of inadequate data to state that in the Frome Embayment Lower and Middle Cambrian is “extensively developed” when these rocks (some unfortunately named the Lake Frome Group though not outcropping there but many miles away in the Orogen) are known certainly only on or near the margins of the Embayment and uncertainly extrapolated under cover on the evidence from a few wells and geophysical data. We do not wish to suggest that all the movements took place in the Ordovician but that they culminated in that period. Our later views reject the rotation of the western part of the foot of Yorke Peninsula. But essentially the dispute is between a stabilistic and a mobilistic approach (in terms of horizontal displacement), and although we have great respect for the work done by Dr Daily and his colleagues it is no real answer to ignore the other anomalies which we attempted—no doubt in a speculative way—to explain.

A. R. CRAWFORD

Research School of Earth Sciences,

K. S. W. CAMPBELL

Department of Geology,
Australian National University,
PO Box 4
Canberra ACT, Australia 2600

Received May 29, 1973.

¹ Daily, B., Jago, J. B., and Milnes, A. R., *Nature phys. Sci.*, **244**, 61 (1973).

Reference Abbreviations

FROM September 1 it is *Nature's* intention that all abbreviations of references should conform to the style of the *World List of Scientific Periodicals*, fourth ed. (Butterworth, 1963-65). The changeover will be gradual and authors submitting manuscripts from now on are asked to ensure that the references are written appropriately.

Drs Crawford and Campbell reply:

Daily *et al.*¹ state that our hypothesis is “without foundation” and that two of the anomalies that are explained by it can be explained differently. They make no reference to other anomalies, in particular the differences between north-west Tasmania and nearby Victoria, and ignore Antarctica. Much of the stratigraphic and structural information they cite is widely known and accepted (such as the mention of extensions of the Adelaide Orogen some distance beyond its outcrop, and the sympathetic folding of basement inliers) but is irrelevant to our arguments. Some can be used to support our hypothesis, for example, the bending of the Torrens Lineament, for which they use the revealing term “deflected”.

Statements such as “the Precambrian crystalline Gawler Block is the largest and most stable tectonic element in South Australia” are almost meaningless. Daily *et al.* have no evidence of its horizontal stability relative to other parts of Australia; presumably vertical stability is implied. The contiguity of the Officer Basin and the Adelaide geosyncline is not established by similar sequences and faunas. The Cambrian sediments of Yorke Peninsula are not

Editorial, Advertising and Publishing Offices of NATURE

MACMILLAN JOURNALS LIMITED
4 LITTLE ESSEX STREET, LONDON WC2R 3LF
Telephone Number: 01-836 6633. Telegrams: Phusis London WC2R 3LF
Telex 262024

MACMILLAN JOURNALS LIMITED
711 NATIONAL PRESS BUILDING
WASHINGTON DC 20004
Telephone Number: 202-737 2355. Telex 64280

Advertisement Department
MACMILLAN JOURNALS LIMITED
4 LITTLE ESSEX STREET, LONDON WC2R 3LF
Telephone Numbers: U.K. 01-836 6633
U.S.A. 202-737 2355

Subscription Department
MACMILLAN JOURNALS LIMITED
BRUNEL ROAD, BASINGSTOKE, HANTS RG21 2XS
Telephone Number: Basingstoke 29242

Classified advertisements
T. G. SCOTT & SON, LIMITED
1 CLEMENT'S INN, LONDON WC2A 2ED
Telephone Number: 01-242 6264/01-405 4743
Telegrams: Textualist London WC2A 2ED

Registered as a newspaper at the Post Office

Copyright © Macmillan Journals Limited, July 23 1973