

CORRESPONDENCE

A GEOLOGICAL 2½-INCH MAP

SIR,—I would join Mr. Evans¹ in welcoming the new Ordnance Survey 2½-inch map² and recommending geological use of the National Grid. I was wondering how best to advocate consideration of similar scale and sheet maps by the Geological Survey when the publication of Professor Linton's paper to Section C, 1947,³ came to hand. As that considers many aspects of the problem I would now ask in your pages to review briefly the case for a new 1/25,000 geological map of Britain.

(1) Comparison of different national geological maps shows that in some cartographic respects ours now fall behind the best. This would be widely appreciated if students had more opportunity to study maps from different countries.

(2) The present time, when so much of the old has been destroyed, and when so much new is coming from the Ordnance Survey, is surely opportune for such reconsideration.

(3) A scale of 2½ inches to one mile would show most of the detail now published or recorded on 6-inch maps. Such a uniform series, with carefully reconsidered conventions, would make generally available a wide and useful range of palaeontological, petrological, structural, and economic detail. Germany⁴ and Switzerland, for example, have successfully employed this scale.

(4) Each sheet is 10 by 10 km. and constitutes four quarter sheets of the projected national 6-inch topographical series. Covering such an area, each sheet could be published within a short time of field work without waiting to complete 12 by 18 square miles, or more in Scotland.

(5) The cost of publication of about 2,500 new sheets would be spread over a long time and would be partly offset by suspending publication of 6-inch geological maps, copies of which could still be provided when necessary.

(6) The position of the 1-inch geological "New Series" is a different question and is not hereby attacked.

(7) The same considerations apply, and indeed more readily, to individual maps published in journals.

W. B. HARLAND.

SEDGWICK MUSEUM,
CAMBRIDGE.
19th August, 1948.

GLACIAL SECTIONS IN THE WELSH BORDERLAND

SIR,—I should be grateful if you would allow me to draw the attention of your readers to two extensive gravel pits revealing very interesting sections in glacial deposits along the Welsh Border. The first, at Yatton, near Aymestry, is in outwash gravel and delta sands deposited from the western lateral moraine of the Wye glacier into the glacial lake Wigmore. The second, at Stretton Sugwas, near Hereford, is in a retreat moraine of the same glacier. The progress of working in this pit is almost daily revealing fresh sections of most interesting structures due to pressure, deposition, melting, etc.

With Professor Wooldridge I had the pleasure of showing a party of the International Congress over these pits in August and their enthusiasm, especially that of the Scandinavian glaciologists, was untounded. Small workings existed on these sites twenty years ago when I studied the region

¹ *Geol. Mag.*, lxxxv, p. 242.

² *Ibid.*, p. 183.

³ "The Ideal Geological Map," *The Advancement of Science*, v, no. 18, p. 141, 1948.

⁴ *Geol. Mag.*, lxxxiv, p. 171.

with Dr. Dwerryhouse, but nothing comparable with the scale on which the gravel and concrete hunters work to-day. The dimensions of the exposure and the rapid rate of working provide an excellent opportunity for studying structures only rarely to be seen in this country, and make it imperative that some competent glaciologist should watch the progress of the work and record the structures revealed in the developing face.

A. AUSTIN MILLER.

DEPARTMENT OF GEOGRAPHY,
THE UNIVERSITY,
READING.
6th September, 1948.

BATHONELLA AND VIVIPARUS

SIR,—Dr. Cox has put forward arguments in favour of regarding *Valvata comes* from the Viviparus Marl of Oxfordshire as a marine species of another genus. Dr. Yen contends that the *Viviparus* itself (*V. langtonensis*) is a marine species of his genus *Bathonella*. It therefore seems desirable to place on record the occurrence of two forms from the Viviparus Marl that are more certainly of freshwater origin. From samples collected at both Castle Barn and Sharp's Hill, the Marl has yielded an undescribed species of the ostracod genus *Metacypris*, and the gyrogonites of a Charophyte. Recent Charophyta are exclusively freshwater. Recent *Metacypris* inhabit the almost freshwater broads of the Fenland. Both Charophytes and *Metacypris* are abundant associates of *Viviparus* and *Valvata* in the Cherty Freshwater Beds of the Middle Purbeck of Dorset. At the same time, it must be admitted that I have also found gyrogonites (but not *Metacypris*) in certain members of the underlying Sharp's Hill Beds usually regarded as marine.

P. C. SYLVESTER BRADLEY.

DEPARTMENT OF GEOLOGY,
ST. GEORGE'S SQUARE,
SHEFFIELD, 1.
2nd October, 1948.

BATHONIAN AMMONITES

SIR,—I am anxious to examine for a monograph in preparation all ammonites from the Fuller's Earth, Fuller's Earth Rock, Stonesfield or Cotswold Slates, Great Oolite, Forest Marble, and Cornbrash. If any collector or curator will send me material on loan it will be gratefully acknowledged and carefully returned as soon as examined. Ammonites are so rare in some of these formations that even a fragment may be something new and stratigraphically important if accurately localized.

W. J. ARKELL.

SEDGWICK MUSEUM,
CAMBRIDGE.
11th October, 1948.

EAST ANGLIAN DRIFTS

SIR,—Mr. Baden Powell's paper on East Anglian drifts¹ adds greatly to our knowledge: his data, which must have cost much time and labour to amass, will, I feel sure, be of permanent value. Nor would I quarrel with his sequence, if the Hoxne beds could be placed on top of all, not in the middle. But though in accord with current practice, the four glaciations claimed, with their appropriate intervals, can, and should, be challenged.

¹ D. F. W. Baden Powell. The Chalky Boulder Clays of Norfolk and Suffolk. *Geol. Mag.*, Oct., 1948, pp. 279–296.