

association resembles the Dalradian of Scotland rather than the ophiolite and flysch association of the Alpine-Himalayan belt, as Gayer (1973) remarks.

Thus the location of the Iapetus Suture in Scandinavia proposed by Dewey (1969) is incompatible with the geological evidence. The suture surface appears not to be the steep zone demanded by simplistic Plate Tectonic theory, but a flat-lying, tectonically complex structure whose position might well coincide with the thrust contact between the Upper Thrust rocks and the Middle Thrust rocks of Kulling's tectonic scheme.

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Silurian, Devonian and Old Red Sandstone

SIR – I am surprised to read that Dr Earp (*Geol. Mag.* **110** (3), 1973, pp. 301–2) only now wishes to cease to maintain 'the exact equivalence of the term Old Red Sandstone and the term Devonian'. The Old Red Sandstone remains a most useful term for a particular magnafacies but it has long been regarded as chronostratigraphically woolly at both ends.

Much was heard, during the long controversy over the placing of the Silurian-Devonian boundary, of the precision with which it is now possible to correlate the

horizon represented by the Ludlow Bone Bed with sequences elsewhere in the world. The substantial pessimism expressed by Dr Earp concerning the possibility of correlating a Downtonian–Dittonian boundary is strangely at variance with this.

The arrangements for maintaining the present map symbols and colours certainly are, in various senses, economical. It is not clear, however, what would happen, for instance, to the map of South Pembrokeshire, where it is as yet rather difficult to assume that a Ludlow–Downtonian boundary is also the base of the Old Red Sandstone.

Should not a clear distinction be made between:

(a) chronostratigraphical divisions which can be made precise by definition, in this case the Silurian and Devonian systems of the Standard Stratigraphical Scale; and

(b) local lithostratigraphical (rock-stratigraphical) groups, formations, etc., for which a complete nomenclature is widely accepted but which unavoidably remain for the present imprecisely correlated to the Standard Stratigraphical Scale?

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SIR – Professor Holland is concerned that, in representing the views of the Geological Survey, I seem to have been unaware that ‘The Old Red Sandstone... has long been regarded as chronostratigraphically woolly at both ends’. The reply to this is that, as a system, it has never been more woolly at both ends than the Silurian or Carboniferous. It has, to this year, been Geological Survey practice to use the term as a valid system name for continental-facies Devonian rocks. As such its upper and lower limits have been as good as those of any system in the Palaeozoic.

Professor Holland’s second paragraph has little more logic in it than to say that, because the *Gastrioceras subcrenatum* Marine Band precisely marks the Namurian/Westphalian boundary one would express substantial pessimism not to see equally great promise in the Staffordian/Radstockian boundary.

Of course, clear distinctions should be made between Professor Holland’s (a) and (b), but practice is seldom so simple; witness the tenacity with which the terms Millstone Grit and Carboniferous Limestone have been maintained by Carboniferous stratigraphers. It is now widely accepted that the Great Limestone of the (former) Carboniferous Limestone of the North Pennines rightly belongs to the Millstone Grit Series. Neither term was ever abandoned throughout several decades of ‘boundary’ debate, because the debate itself was the product of the search for chronostratigraphical boundaries for time-honoured lithostratigraphical groups. The same has been true of the Old Red Sandstone.

The Geological Survey, with its accumulated experience of how geology is best presented on maps, must progress carefully. It cannot immediately adapt the mode of presentation of a series of maps that may have spanned a 30-year period of production to every mutation proposed and counter-proposed in contemporary geological literature.

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