Recommendation to discontinue the use of the terms 'niobiform' and 'isoteliform' in the description of asaphid (trilobita) sutures

SIR,—In the course of redescribing some ogygiocaridinid trilobites from central Wales, it has come to my notice that Whittard (1955–1967) in his comprehensive monograph on the Ordovician trilobites of the Shelve inlier unfortunately perpetuated two rather confusing terms in his descriptions of the anterior branches of the facial sutures of some asaphids. The terms in question are 'niobiform' and 'isoteliform' which he used to describe sutures that were, frontally, marginal and intra-marginal respectively.

These terms were first introduced by Raymond (1910, p. 37) who believed that the sutures in *Niobe* were marginal frontally, and that the two branches of the suture met in a point in the middle of the anterior margin in *Isotelus*. Lake (1942, p. 328) clearly pointed out, however, that the suture in *Niobe* is wholly dorsal-intra-marginal, although very close to the anterior margin. He thus proposed that the term niobiform should not be used and that if a name were required for sutures which are marginal frontally, the term nileiform should be used. Lake's clear arguments against the continued use of the term niobiform appear to have gone largely unnoticed by workers on Ordovician trilobites, with many authors continuing to use the term, including Harrington & Leanza (1957). The suppression of the term niobiform was again recommended in the 'Treatise' (061; Moore, 1959) but similarly this seems to have gone unheeded. In view of the above, together with the fact that Whittard clearly appreciated the problems that have arisen in the past due to confusion over the course of the facial sutures, it is difficult to appreciate why he continued the use of the term.

Although the term isoteliform is not so unsatisfactory as niobiform, this term has been used to describe two slightly differing types of suture. Firstly it has been used to describe the pattern found in *Isotelus* in which the anterior branches meet within the margin and the median suture commences on the dorsal side of the exoskeleton. Secondly, it has also been used by various authors, including Whittard, to describe sutures which meet on the margin frontally and in which the median suture is wholly ventral. It would thus appear advisable to restrict or even discontinue the usage of this term also.

If the usage of either of these terms is to be discontinued or restricted, the question arises as to what terms should replace them. It is believed that, since the basic development of all asaphid sutures is similar, it would be simplest to describe them all as asaphid type sutures, stating whether they are marginal or intra-marginal frontally, and whether a median suture is developed on the dorsal surface.

Although many of the arguments above have been put forward before, it is felt that, because Whittard's monograph is likely to become one of the standard reference works on the Ordovician trilobites of the Anglo-Welsh region, it is worth while yet again to state the inadvisability of continuing the use of these terms in asaphid descriptions.

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