

EVIDENCE OF GRAPTOLITES IN TASMANIA.

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AT the last Sydney meeting of the Australasian Association I discussed the Tasmanian graptolite record,* and arrived at two conclusions—Firstly, that Thureau had found a *Diplograptus*, and, secondly, that, on the supposed identification of an (Upper) Silurian graptolite, the Lisle slates had been referred to Ordovician.

After the publication of my paper Mr. Thureau wrote to me on the matter. He speaks of the Lisle so-called graptolite, that is, the one he had recorded under the useless name of *Diplograptus nodosus*, as follows:—“I now recollect seeing there (*i.e.*, at Lisle, T.S.H.) dark elongated imprints—probably carbonaceous—in those dark-blue slates, but they were too indistinct to be classified. . . .” Then follow some remarks which explain the confusion into which I fell in my previous paper through my ignorance of Tasmanian geography. “With regard to the *true* graptolite . . . the locality is about 10 miles from Strahan, on the old Mount Lyell Road (Tas.), close to an old road-maker’s camp and stable, near a spring of water.” This is the specimen which, from Mr. Thureau’s conversation, I felt convinced was a *Diplograptus*. Of the Lisle record I express no other opinion than my belief in its worthlessness.

During the session of the Australasian Association, at Hobart, last January, while looking over some samples of slate in the collection of Mr. Thomas Stephens, M.A., I found traces of a graptolite in a specimen from near the Ring River, on the North-East Dundas Railway. I understand that the rock samples had been given to Mr. Stephens by Mr. G. A. Waller, Assistant Government Geologist. The slate is a very hard, much-jointed rock, with a silky lustre, and the fossil is badly preserved. Some branched talcose and ferruginous markings first caught my eye, and on examination with a lens I found three or four thecae.

* 1 Rep. Aust. Ass. Adv. Sci., v. 7, 1898, p. 401.

As the thecae can be seen only when the specimen is held in a particular position with regard to the light, they are not easily demonstrated. Their outer edge is straight, and the apertural margin is about normal to the branch. From the appearance of the indistinct markings present on the stone the specimen belongs to the Dendroidea, and I am inclined to think to the genus *Callograptus*, which is in itself of no great stratigraphical value.

A few weeks ago Mr. Waller sent me two slabs of slate from $12\frac{1}{2}$ miles from Zeehan, on the same railway line. On one of these a fragment showing graptolite thecae can be distinguished, the specimen being monoprionidian. The specimen on the other slab is more obscure, and I can only say it is suggestive of a graptolite. In neither instance can even a guess at the family be hazarded.

We thus have undoubted evidence of the existence of graptolites in Tasmania, but, so far, no evidence is thrown on the exact age of the containing rocks, and it rests with those on the spot to fill up the hiatus in our knowledge.

Mr. Stephens' specimen has been sent to the Hobart Museum, and Mr. Waller's two specimens to Mr. Twelvetrees, for the Survey Collection.
