

## CORRESPONDENCE.

## THE AGE OF 'THE MOUNT TORLESSE ANNELID.'

SIR,—In my paper on these fossils (GEOL. MAG., Dec. V, Vol. II, pp. 532-541; December, 1905) it was said that the beds containing them were "usually regarded as the uppermost division of the Maitai Series"; but the stratigraphical position of that series was treated as an open question, though "probably not below Upper Carboniferous and not above Trias." The paper was unfortunately written without reference to a valuable series of articles by Professor James Park, of Otago University, contained in the *Transactions of the New Zealand Institute*, vol. xxxvi. From these papers it appears that "a good deal of doubt must attach to the determinations" of the fossils found by Mr. M'Kay in the Maitai Limestone; the fossils collected by Professor Park in the same bed are identified by him as "*Spiriferina* (two sp.), *Athyris*, *Rhynchonella*, *Pleurotomaria*, *Inoceramus*, *Pentacrinus* [presumably *Isocrinus*], and corals (three sp.)." These, as well as other fossils in corresponding beds, indicate that the limestone in question, so far from being Lower Carboniferous, is really Upper Triassic. On this ground alone the conformably succeeding shales, etc., would probably be of Jurassic age. Further, the "shell like *Inoceramus*" alluded to on pp. 535, 536 of my paper, is regarded by Professor Park as *Inoceramus* itself, and as indubitable proof of Mesozoic age. The Maitai shales, etc., of the Nelson district are correlated by Professor Park with the Mataura formation of Otago, and since the name 'Maitai' has become so ineradicably associated with the idea of Carboniferous age, he adopts Hutton's 'Mataura Series' with its familiar Jurassic connotation. He further adopts Hutton's 'Hokonui System' to include the Mataura Series and the conformably underlying Shaw's Bay Series of Triassic (and ? Permian) age.

The Mount Torlesse Annelid beds are mentioned by Professor Park on p. 392, only to say that "in the absence of shell beds it is impossible to fix the position of the plant and annelid beds in relation to known horizons elsewhere . . . the strata at Mount Torlesse do not afford the data necessary for their subdivision into groups and series of beds." It seems, however, to result from Professor Park's work that the horizon of *Torlessia Mackayi* and *Dentalium Huttoni* is "not below Trias and not above Jurassic." Perhaps it would be permissible to say "probably Lias"; and here one recalls that the Yakutat slates with *Terebellina* are also probably Lias.

To Professor Park and to readers of the GEOLOGICAL MAGAZINE an apology seems necessary for the omission of the preceding remarks from my original paper. Their omission was due mainly to the fact that the volume containing Professor Park's articles, though issued in August, 1904, has not yet been received either by the British Museum (Natural History), "to whom this volume is

presented by the Governors of the New Zealand Institute," or by the Science Library of the Education Department, which has been attempting to procure it through the usual agents. My attention was drawn to it by Dr. Wilckens' excellent abstracts in *Neues Jahrbuch für Mineralogie*, 1905, II, which reached England after my paper had gone to press. It is intelligible that Professor Park should send his fossils to Freiburg for determination; but it is hard that British palæontologists, who at least try to do their best, should have to learn of the admirable work of their New Zealand brethren from a German publication.

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THE SEPARATE EXISTENCE OF GEOLOGY AS A SCIENCE.

SIR,—I observe in the Anniversary Address of the President of the Geological Society (John Edward Marr), 17th February, 1905, p. xi, the following paragraph:—"It is not wonderful that in these circumstances there appears to be a feeling among some that geology as a separate science will become extinct." I have met with statements somewhat akin to this which have drawn my attention to the subject. Geology is the history of the earth, and therefore includes all other sciences and all natural knowledge (except the abstract sciences). Therefore, if geology as a science is to become extinct it can only be as regards the name (unless, indeed, it is meant that the human race is to become extinct), for as long as a reasoning being exists on the earth there must be some kind of a history of the earth. Astronomy, biology, mineralogy, etc., are merely branches of this science.

I would remark also on a statement in the Address of H. A. Miers to the Geological Section of the British Association in South Africa, wherein he says he has no claim to be called a geologist. If a man who has a profound knowledge of some departments of geology, and, it may be presumed, a good general knowledge of geology likewise, is not to be called a geologist, then who is?

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MESSRS. HATCH & CORSTORPHINE'S "GEOLOGY OF S. AFRICA."

SIR,—It may prevent some confusion subsequently, to point out that in Hatch & Corstorphine's recently-issued work on "The Geology of South Africa" there is an error in the naming of one of the fossils from the Umtamvuna Series (Pondoland) depicted in fig. 71 on p. 259. Fig. 71b should have been described as *Ammonites gardeni*, and not *Ammonites soutoni*, the figure having evidently been copied from one of Baily's original figures of that species (Quart. Journ. Geol. Soc., vol. xi, 1855, pl. xi, fig. 3a).

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