III.—GEOLOGY.

Art. XL.—*Corrections in the Names of Some New Zealand Rocks.*

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[*Read before the Philosophical Institute of Canterbury, 3rd August, 1898.*]

In September, 1897, the Rev. Richard Baron, who is well known from his researches on the rocks of Madagascar, while on a visit to New Zealand, examined the greater part of the collection of rocks in the Museum on which my paper on "The Eruptive Rocks of New Zealand,"* was founded. He agreed with most of my descriptions, but made some criticisms and corrections, which he has kindly allowed me to publish. To these I add a few remarks and alterations which I wish to make myself.

Corrections in Paper on "The Eruptive Rocks of New Zealand."

(Page 109.)

Foot-note.—For "colloid glass" read "cooled glass."

(Page 112.)

Granite from Cape Foulwind.—The alternating layers of orthoclase and microline form what is commonly known as "chesterlite."

Granite from Port William.—The occurrence of microline is doubtful (*Baron*).

Granite from Denniston.—Contains sphene (*Baron*).

(Page 114.)

For "elvanite" substitute "eurite," as the term "elvanite" seems to have dropped out of use.

(Page 115.)

Rhyolite from Lyttelton.—This has been called a tridymite-trachyte by Mr. P. Marshall, in Trans. N.Z. Inst., vol. xxvi.,

* Pro. Royal Soc. N. S. Wales, vol. xxiii., p. 102, 1889.

p. 368, on the supposition that the large percentage of silica is due to the secondary deposition of tridymite, which appears to be the case.

(Page 120.)

Palla.—For a reference to Sir J. von Haast's use of this term, see Trans. N.Z. Inst., vol. iv., p. 85. It is there said to occur also in Transylvania.

(Page 122.)

Hornblende Trachyte from the Sugar Loaves, Taranaki.—Plagioclase is more abundant than sanidine (*Baron*). An analysis of this rock has been published in the Laboratory Report, No. 25, for 1889–90, p. 59, which shows that it contains only 53·43 per cent. of silica. It should therefore be called a hornblende andesite.

(Page 128.)

Enstatite Diorite from Bluff Hill.—This is a norite, or enstatite-gabbro, the hornblende being secondary (*Baron*).

(Page 129.)

For "porphyrite" substitute "aphanite," as the term "porphyrite" is now generally used for an altered andesite.

(Page 130.)

Augite Porphyrite from Enfield.—These rocks are basalts (*Baron*).

(Page 142.)

Olivine Andesite from Banks Peninsula, No. 2.—This rock has been described in detail by Mr. R. Speight in the Trans. N.Z. Inst., vol. xxv., p. 367. The specific gravity is only 2·61.

(Page 150.)

Basalt Group.—Under this head eliminate the words "and plagioclase."

(Page 151.)

Basalt from Banks Peninsula, No. 1.—This rock comes from what is known as the Halswell Quarry.

CORRECTIONS IN OTHER PAPERS.

"*Transactions of the New Zealand Institute,*" *vol. xxiii., p. 354.*

The hornblende diorites are epidiorites, as the hornblende is secondary; originally they were enstatite-gabbros. The hornblende porphyrite should be called a dolerite.

"*Transactions of the New Zealand Institute,*" *vol. xxiv., p. 363.*

The hornblende diorites are, probably, epidiorites. I have a specimen of a boulder from near Cuttle Cove, Preservation Inlet, which Mr. Baron is confident is an epidiorite.