

These sandstones are unfossiliferous, and an absolute proof of their Eocene age must accordingly be wanting; but, *faute de mieux*, Dr. Falconer makes out an excellent case and presents his facts clearly.

The book concludes with chapters on "The Superficial Accumulations," "Tertiary Crustal Movements," and "Tertiary Volcanic Action," each worthy of the close attention of the student of African geology. Two periods of Tertiary volcanic activity are recognised, respectively middle Eocene and late Pliocene; to the latter are referred some excellently preserved puy (Fig. 2) developed in the Province of Yola, the middle Benue valley and on the Bauchi plateau.

The rocks of the earlier outburst are an interesting series of phonolites and nepheline-basalts, of which the conspicuous stumps of the Tangale Peak and the Wase rock may be taken as typical examples.

In regard to the late earth movements, one conclusion of general interest may be recorded here, viz., that the culmination of the Tertiary oscillation resulted

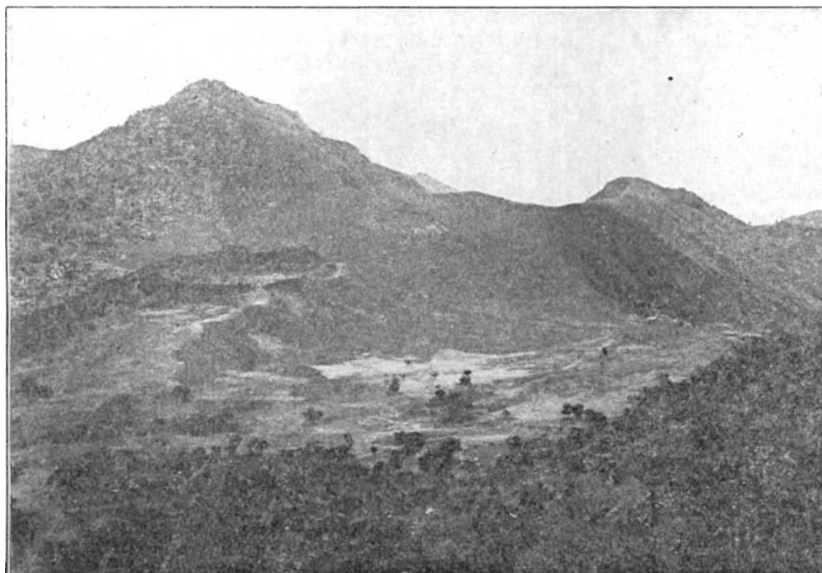


FIG. 2.—Craters in the Mboi Hills. From "The Geology and Geography of Northern Nigeria."

in the formation of the Bauchi plateau and the establishment of the present river system.

The Bauchi district is inseparably connected with the tin industry, and we could wish that Dr. Falconer had seen his way to more details, put in plain and concise phraseology, of the alluvium-containing cassiterite.

The sudden prominence into which the tin-mining industry has burst in northern Nigeria naturally leads the reader, in such a work as this, to expect authoritative information in a form to be readily assimilated.

Mr. Henry Woods has contributed an appendix on the palæontology, and the book as a whole is full of valuable information to the student; the geological map on a scale of 1 : 2,000,000 is indispensable to those interested in the structure of this part of Africa.

As Dr. Falconer himself readily admits, his work may require some modification in the future, but all who are acquainted with the difficulties of the African pioneer will give him full measure of praise for the results he has attained. In such circumstances to quibble over detail is an ill task, but the first chapter on the "Physical Geography" might be compressed and summarised with advantage to the general reader, and perhaps many will find a too great elaboration of detail throughout the work.

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DR. HARRY BOLUS.

THE name of Dr. Harry Bolus is closely associated with the story of South African botany for the last forty years. In April, 1874, a letter to Sir Joseph Hooker was read at a meeting of the Linnean Society, of which Bolus had recently been elected a fellow (December 18, 1873), in which he criticised Grisebach's limitation of the Cape and Kalahari floral provinces (see Journ. Linn. Soc., xiv.). This was the beginning of a series of publications embodying the results of his observations on the flora of a peculiarly rich and attractive botanical area. In 1886 Bolus wrote for the official handbook of the Cape of Good Hope a valuable "Sketch of the Flora of South Africa," in which he proposed a series of natural botanical divisions, forming, roughly, successive zones from the coast northwards. From 1881 to 1889 he communicated to the Linnean Society a number of contributions to South African botany, containing critical notes on various genera and species, as well as descriptions of many novelties; but it was to the heaths and orchids that he was especially devoted. The results of his study of the large and intricate genus *Erica* are found in his monograph (in part of which he had the help of the late Prof. Guthrie) in the "Flora Capensis" (vol. iv., sect. 1, issued in 1905), where the 469 species are described in detail, and arranged under forty-one sections.

In his volumes on South African orchids, Dr. Bolus has established a model of detailed description and illustration; accompanying each species is a plate, drawn by Dr. Bolus himself, in which a judicious combination of outline and colour gives exactly what is wanted by the botanical student. Dr. Bolus had just completed this important work at the time of his death, which occurred on May 25, when on a visit to England. Mention should also

be made of the excellent series of specimens illustrating the Cape flora, by the distribution of which to various great herbaria Dr. Bolus brought his collections within reach of a large number of students of systematic botany. An account of his services to botany would be incomplete without a reference to his generous support of the Cape University, which owes to him the foundation of its chair of botany; and Dr. Bolus himself would have wished some acknowledgment to be made of the help which he received in all his later work from his niece and pupil, Miss Louisa Kensit.

A. B. R.

NOTES.

THE Croonian lecture of the Royal Society will be delivered on June 15 by Prof. T. G. Brodie, F.R.S., on "A New Conception of the Glomerular Activity."

ON Tuesday, June 13, Prof. Ernst Cohen, of the University of Utrecht, will give an illustrated lecture before the Faraday Society on "Allotropic Forms of Metals." Prof. T. W. Richards, of Harvard College, has been invited to take the chair on this occasion. Applications for tickets should be made to the secretary, 82 Victoria Street, London, S.W.