in 1905 (Fayum memoir, p. 71) and again is obvious from the accumulated work of Hume, Beadnell, and others.

4. Large erosional hiatus at base of the Miocene (Middle Miocene ?) in the Gulf of Suez, indicating strong tectonic movements followed by a long period of erosion in pre-Miocene time " (Tromp, 1949 and 1950) ". Hume in 1916 (Oilfields Region Memoir, p. 40) traced in detail the great unconformity at base of the Middle Miocene as shown by the overstepping *Pectan submalvinae* Beds across all older formations including Archaean, and Beadnell (1924, Qosseir-Wadi Ranga Memoir, p. 32) stressed the importance of these movements.

5. Post-Miocene N.W.–S.E. faults cutting across the grain of the older folds. Pointed out by Moon & Sadek, 1921 (North Sinai Memoir, pp. 52–3).

6. Probable continuation of the movements to present day. Stated by Beadnell, 1924 (Qosseir-Wadi Ranga Memoir, p. 32).

7. Middle Pliocene transgression in Gulf of Suez region. Observed by Moon & Sadek, 1921 (op. cit., p. 53).

It is to be hoped that Professor Tromp is aware of all this literature and *much more, if, as he promises, he is to give us a " compilation of the macro-stratigraphy of Egypt ". The astonishing second sentence of his opening paragraph raises grave doubts.*

Three points put forward seem new and important :—

A. The existence of Jurassic Nubian Sandstone in Southern Egypt.

B. That the Red Sea was closed at both ends during the gypsum period. If so the existence of beds with *Barbatia*, *Venus*, *Diplodonta*, and *Corbula* in the gypsum is difficult to account for.

C. That Egypt as a whole was rising continuously throughout the Miocene, Pliocene, and Pleistocene. This seems difficult to reconcile with the well-known Upper Pliocene transgression to 180 m. above present sea-level in the Nile Valley.

May we have the evidence for A and the explanations of how the difficulties mentioned under B and C are to be disposed of ?

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17th December, 1950.

LINEATION IN SCHISTS S.E. OF THE GREAT GLEN

SIR,—In 1937 I published (*Quart. Journ. Geol. Soc.*, xciii, 581–620) the first results of a study of the structural petrology of some Moine Schists. These results showed that the well-known " direction of stretching " (lineation) marked a *b*-axis of the fabric and pointed to the conclusion that " the Moine Schists were brought to their present state of regional metamorphism by a deformation acting along approximately south-west and north-east lines ". At that time my attention was mainly directed to the area north-west of the Great Glen, but study of the existing maps and literature had already convinced me that a similar significance could be attached to much of the lineation in rocks south-east of the Glen, not only in the Central Highland Granulites but also, in part, in rocks mapped as Dalradian. On the basis of an examination of a few isolated specimens, I ventured to include in a " General map of lineations believed to represent *b*-axes " (ibid., p. 594, Fig. 5), two further groups of symbols, one around Strath Spey and another near Struan and Kinloch Rannoch. The recent " Notes " by Dr. D. B. McIntyre (*Geol. Mag.*, lxxxvii, 1950, 331–6, 427–432) now afford interesting detailed evidence in confirmation of this conclusion. " The direction of movement is clearly perpendicular to the lineation and not parallel to it, as Hinxman assumed. The ' striping ' is a *b*-lineation." Dr. McIntyre also concludes that in his specimens the sense of movement was towards the south-west. On the basis of our present (imperfect) knowledge of the fabric of the schists of the Northern Highlands as a whole I would have arrived at the

opposite conclusion, for the general trend of arcuation of the prevailing south-easterly lineation, from more nearly W.–E. in the extreme north to more nearly N.–S. in the south, would seem to accord best with the assumption of movement *from* the south-west.

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REVIEWS

AN OUTLINE OF THE GEOLOGY OF KENYA. By S. M. COLE. pp. *xiii* + 58. Pitman, 1950. Price 6*s*.

This little book is written for the general public living in Kenya, in the hope that they may become interested in the basic facts of geology and look at their country with eyes that see something of the past history of the area in the rocks. For others living outside Kenya, Chapter 5 will be useful in giving in concise form the succession of climatic changes and deposits of Quaternary and Recent age, worked out largely by Dr. Leakey.

It is hoped that this book may have a wide sale throughout Kenya, for it is through the influence of such works as this that valuable finds which otherwise would be lost may be brought to the notice of the authorities.

W. B. R. K.

A PRACTICAL HANDBOOK OF WATER SUPPLY. By FRANK DIXEY. pp. xxxvi + 573, with 133 figures and 6 maps. Allen and Unwin : Thomas Murby. 2nd edition, 1950. 35*s*.

This edition of Dr. Dixey's well-known book on water supply is largely a reprint of the 1931 edition with a number of references to recent work at the end of each chapter, so that the reader can bring the work up-to-date himself. That Dr. Dixey is well aware of the recent developments of geophysical methods and modern drilling technique is shown in the preface and in the additional bibliographies, and it is a pity these could not be incorporated in the main text.

The reproduction of the 1931 text when dealing with costs (e.g. on page 456) may be rather misleading at the present time. Nevertheless, it is good to have this authoritative book again available.

W. B. R. K.