

There seems no reason to doubt that the lacustrine beds were laid down in an extension of Lake Manyara, which now lies at a level 300 to 350 feet below. The extension of other African lakes in the Middle and Lower Pleistocene pluvial periods is already well known, and the present study, although restricted to the relatively small area of known exposures, indicates that Manyara had a similar history. The raising of the lake level to Mkujuni Bridge would involve an increase of the lake to more than three times its present size with present-day topography. Renewal of the movement of the Rift Fault in the late Middle Pleistocene may, however, have increased the tilt of the down-thrown block towards the lake, so that a smaller rise of lake level may have effected the flooding.

REFERENCE

- WAYLAND, E. J., 1935. The M-Horizon, A Result of a Climatic Oscillation in the Second Pluvial Period. *Bull. No. 2, Geol. Survey of Uganda*, 69-76.

CORRESPONDENCE

TRAP

SIR,—Lyell, in the first edition of his *Principles*, iii, 1833, p. 360, writes: "Most of the igneous rocks first investigated in Germany, France, and Scotland . . . in some places occurred in tabular masses or platforms at different heights, so as to form on the sides of some hills a succession of terraces or *steps*, from which circumstance they were called 'trap' by Bergman (from *trappa*, Swedish for a staircase)." In the *Elements* it is demonstrated that each step is formed by a horizontal sheet of igneous rock intercalated between layers of sediment less resistant to denudation. Lyell's statement is probably the basis of similar ones which appear in English textbooks down to the present day, but a study of the early literature reveals that the name "trap" was not first given by Bergman, nor was it derived from the phenomenon which we now call "trap-featuring".

The first mention of "trap" which I have traced is by Rinman in *Kongl. Svenska Vetenskaps Akademiens Handlingar*, xv, 1754, p. 293, under "Trapp, or Tegelsköl". He notes its common occurrence as dykes, and that it breaks into rectangular blocks like free-stone. The miner's term "tegelsköl" signifies "brick dyke".

Bergman, in a letter dated 12th June, 1776 (*Uno von Troil, Letters on Iceland*, 2nd ed., 1780, p. 392), writes: "Trapp is generally found in square irregular cubes, whence it has most probably obtained its denomination, on account of some similarity with stones made use of for staircases." Other early Swedish mineralogists, and Bergman himself at a later date, relate the term to the jointing, but derive it from the resultant stair-like form of the rock exposure.

It seems clear that although the precise derivation is uncertain the name "trap" arose from the jointing which the rock may show.

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REVIEWS

GEOLOGY OF THE APPLEBY DISTRICT. By H. C. VERSEY. pp. 39. with 6 text-figures. Appleby, J. Whitehead and Son, 1941. Price 2s.

Since the appearance of the last edition of this guide, by the late Professor Gilligan, twenty years ago, there have been several new developments in the interpretation of the local geology; consequently it has been entirely rewritten, with happy results. It is an excellent example of what a local geological guide should be, clear and comprehensive, but not diffuse. There are few areas of comparable size showing so many different formations, as well as topographical features of the highest interest. Among the important later discoveries are the recognition of the existence of thrust planes in the Cross Fell inlier, and new views of the origin of the Brockrams, which are now known to have been derived largely from the south and to some extent from the west, as well as from the Pennines. A comparison with west Cumberland seems to show that a Brockram should be regarded as a facies, and may occur at almost any horizon in the New Red Sandstone. It is perhaps inevitable that the division of this rock series into Permian and Trias is here still strictly maintained; it might perhaps have been made rather more clear that there is now considerable doubt whether this can be justified. Dr. Versey is sceptical as to the attribution of certain patches of sandstone, such as that forming the top of Cross Fell, to the Millstone Grit; he thinks they may be only rather unusually well marked Yoredale sandstones, since