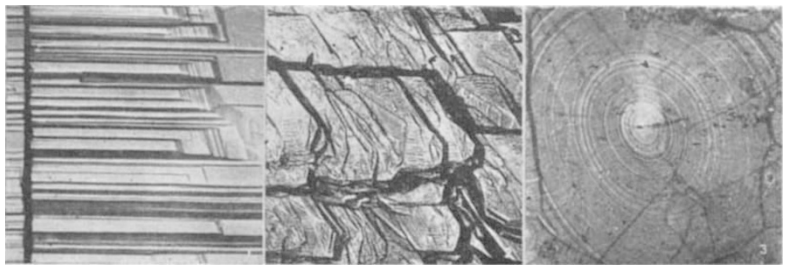

Fig. 2 shows growth pyramids giving rise to striations on the prism face of a synthetic crystal. The striations are not so well marked as on natural crystals, and they appear to run in two separate directions, as the differential growth-rate is here much less. Under other conditions of growth the synthetic crystals have no striations at all. It is then found that the growth sheets are circular (indicating growth velocity independent of direction) and give rise to conical growth pyramids, as shown on a rhombohedron face in Fig. 3.

Our thanks are due to Prof. S. Tolansky for his encouragement and interest in this work, part of which was carried out in his laboratory by one of us (B. T. M. W.).

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[1] Seager, A. F., Mineralogical Society, March 8, 1951.

Replacement of Plagioclase by Orthoclase in Deep-Sea Deposits

It is well known that authigenic orthoclase is present in fossil sediments of marine origin. In the course of my studies of fragments from gabbro and anorthosites in a core taken in 1948 by the Swedish Deep-Sea Expedition with the *Albatross* in the north-western Atlantic Ocean (lat. N. 29° 21′; long. W. 58° 59′; depth 5,450 m.), replacement of plagioclase (60–80 per cent anorthite) by authigenic orthoclase could be proved to have occurred. The replacement starts along fissures in the plagioclase. In fact, all stages in the transformation from fresh plagioclase to complete orthoclase were observed.

The authigenic orthoclase forms a framework of minute crystals of parallel optical orientation. This change is especially obvious in dolerite of typical ophitic texture, where the orthoclase is seen to form a framework around the lacunæ left by the dissolved plagioclase, which are dark in the accompanying photomicrograph.

This pseudomorphosis is limited to an external 'weathering' crust, 3–5 m. thick. Optical and X-ray analyses confirm that the mineral formed is a true orthoclase.

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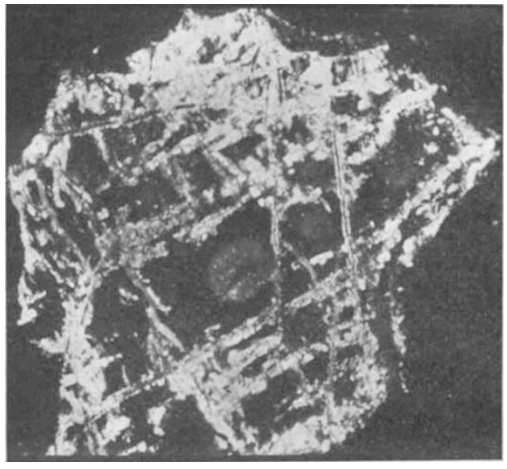

Authigenic orthoclase. × 20

Lower Miocene Invertebrates from Kenya

Recently, while continuing the search for additional Lower Miocene fossil fruits and seeds in the deposits on Rusinga and M'fwangano Islands in Lake Victoria, in order to obtain more data concerning the environmental conditions under which the Miocene ape *Proconsul* lived, we have found some remarkable fossils of insects and other soft-bodied invertebrates. This discovery is of unusual interest, not only because it is believed to be the first of its kind in Africa, but also because of the very unusual state of preservation of the material. Most fossil insect remains—other than those preserved in Oligocene ambers—have been found in a somewhat crushed and distorted condition in laminated rocks. In the present case the fossils, in spite of their soft-bodied nature during life, have retained their natural shape in a quite surprising manner. This is clearly shown in the accompanying illustrations of a lepidopterous larva (Fig. 1) and a pedipalpid (Fig. 2).

Some twenty specimens of invertebrates have so far been obtained, and it is anticipated that many

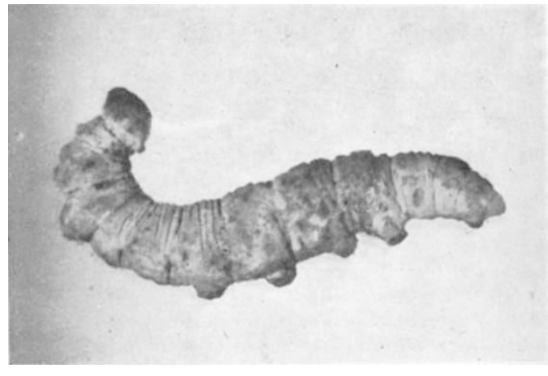

Fig. 1