ON THE ORIGIN OF THE CRYSTALLINE SCHISTS,

With special reference to the Southern Highlands.

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SIMPLY premising that a schist could be easily seen to possess a parallel structure, and to be completely crystalline, a series of slides was shown to illustrate the mode of occurrence of these two factors. A specimen of crushed Torridon Sandstone was exhibited, in which the parallel structure is shown by the "flaser" (flowing) crush-material and dirt that flows round the uncrushed portions of the original pebbles.

The first essential—parallel structure—is thus produced; but not the second, for the flaser material has not become completely crystalline. A crushed grit from the Southern Highlands, however, is shown to be a true schist, because the flaser material, in which lie the pebbles or remnants of pebbles, has completely crystallized and we thus have a schistose grit. Similarly a crushed gneiss shows fragments of the old rock round which flows a substance essentially composed of non-crystalline comminuted material. This is compared with the crushed granite of Ben Vuroch in which the recrystallized flaser material forms with the remnants of the felspar crystals (augen) a true augen-gneiss or schist. Evidence was next given to show that the crystallization was quite independent of the development of flaser structure.

A section of highly altered calcareous shale was shown on the screen, and it was seen to possess very perfect parallel banding and was also a completely crystalline rock. In the hand-specimen it somewhat resembles a hornfels, and would not be called a schist except after being examined under the microscope. A specimen of quartzite was shown to be entirely a crystalline rock and yet to possess no parallel banding. Thus the parallel banding or arrangement of the component minerals and the crystalline condition of the rock are two independent factors that are united in a true schist. A particular band of rock from the head of Glen Isla was then examined, and it was shown to be a fine-grained schist over a large area, but on approaching a mass of gneiss of igneous origin, the fine schists became coarser and contained crystals of Kyanite and Staurolite.

Detailed evidence was given to show that this phenomenon is repeated on a large scale in the Southern Highlands. This region has been invaded by a mass of muscovite-biotite-gneiss, mostly a deep-seated rock, but which manifests its underground presence