

AGE RELATIONS OF CERTAIN GRANITES AND MARSCOITE
IN SKYE

SIR,—During his classic investigations in Central Skye towards the close of last century, Harker made several suggestive observations which, in the time at his disposal, could not be carried to a final conclusion. To this category belongs his statement, published in the *Geological Survey Memoir* in 1904 (p. 130), that in places the granites of the Red Hills showed interior intrusive contacts, and so had been built up by more than one act of intrusion. We have arrived at a more exact demonstration of this general conclusion during preliminary work for a comprehensive re-survey and petrological re-investigation of Central Skye.

In the north-western part of the Red Hills two distinctive granitic types have been recognized by us, namely, a biotite-hornblende-granite, and a rusty-weathering granophyric and slightly porphyritic type forming Beinn Dearg Mhor. These two types occupy extensive areas; the Beinn Dearg Mhor type has a more central position and is chilled against the biotite-hornblende-granite, while the latter occupies peripheral and lower ground.

A third type occurring in this part of the Red Hills has been described by Harker as xenolithic ("spotted") granophyre, and with this marscoite is intimately associated. Harker appears to have considered that marscoite occurred as distinct rock masses which were intruded into basalts, and some of his mapping supports this. He also considered that the acid magma which invaded the area was entirely later than the marscoite, and that it replaced much of the rock surrounding the marscoite intrusions, yet left marscoite sheets and dykes, considerably broken up and attacked by the acid magma, but still in roughly their original positions (see, for example, the *Skye Memoir*, pp. 188–191, and figs. 38 and 39). We have much to re-examine in the neighbourhood of Marsco itself, but elsewhere we have found contacts at widely separated points which show that marscoite and the associated xenolithic granophyre are later in age than the extensive mass of biotite-hornblende-granite mentioned above. On Sron a 'Bhealain, for instance, marscoite has been found in contact with the biotite-hornblende-granite at various places, and is in these cases clearly chilled against the granite, the latter, in contrast, not varying in grain size right up to the contact. Farther north, in the Allt Daraich and on Glamaig, marscoite presents similar, chilled edges against the biotite-hornblende-granite. At present we have no evidence of the time-relations between the marscoite with its associated xenolithic granophyre and the Beinn Dearg Mhor granite but this is probably to be obtained in the Marsco region.

J. E. RICHEY.
F. H. STEWART.
L. R. WAGER.

29th October, 1946.