

STRUCTURAL AGE OF THE VAGASTIE BRIDGE GRANITE, SUTHERLAND

SIRS, — Dr. Fergusson's observations on the Vagastie Bridge granite (1978) emphasize its structural similarity to Carn Chuinneag: it post-dates folds in the Moine rocks but predates the most important phase of penetrative strain. The internal fabric is not analogous to that of Rogart and should not be associated with intrusion, unless that was coeval with the main deformation. Neither event is likely to be as young as 405 Ma and there is a conflict between the geology and interpretation of the isotopic evidence. The latter needs to be reexamined.

REFERENCES

FERGUSSON, I. W. 1978. Structural age of the Vagastie Bridge granite, Sutherland. *Scott. J. Geol.* **14**, 89–92.

N. J. SOPER
*Department of Geology,
University of Sheffield,
Sheffield S1 3JD.*

P. E. BROWN
*Department of Geology and Mineralogy,
University of Aberdeen,
Aberdeen AB9 1AS.*

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SIRS, — The evidence presented by Fergusson (1978) indicates that the Vagastie Bridge granite post-dates *all* the main structural and dynamothermal metamorphic events that affected the host Moine rocks. This conclusion, which differs from the statement to the contrary by Dr. Soper and Professor Brown, is based on the evidence at Vagastie Bridge and not on regional correlations. Moreover it is supported not only by the zircon U-Pb age of 405 ± 11 Ma given by Pidgeon and Aftalion (1978, p. 190), an age that generally corresponds with ages of post-tectonic Newer Granites in the Northern Highlands, but also by sphene U-Pb data. These authors discuss and reject the possibility of some metamorphic resetting of zircon and sphene U-Pb isotopic systems and conclude that there appears to be no reason to doubt that the *c* 405 Ma age is the true age of the Vagastie Bridge granite (p. 207). The assertion of Soper and Brown that neither the intrusion of the granite, nor its internal fabric is likely to be as young as 405 Ma is thus contrary to more than one line of evidence. It follows that it is the regional correlation, across areas in South Sutherland on which no modern structural studies have been published, rather than the structural observations at Vagastie Bridge or the isotopic evidence for the Vagastie Bridge granite that needs the re-examination.

REFERENCE

PIDGEON, R. T. and AFTALION, M. 1978. Cogenetic and inherited U-Pb systems in granites: Palaeozoic granites of Scotland and England. In Bowes, D. R. and Leake, B. E. (eds). *Crustal evolution in northwestern Britain and adjacent regions*, *Geol. J. Spec. Issue No. 10*. 183–220.

*Department of Geology,
University of Glasgow,
Glasgow G12 8QQ.*

I. W. FERGUSSON