REPORT

The Great Stretton Erratic

The Great Stretton erratic boulder was found by Rod Branson in 2008. It lies near the hamlet of Great Stretton, east of Leicester, 400 m along a footpath leading south off Gartree Road towards Gorse Lane (NGR SK64980049). The stone had been lifted out of a drainage ditch by a tenant of the Cooperative Farms.

This large erratic has not previously been recorded. It is a metabasite (metamorphosed basic igneous rock), unusual in that has not before been listed within the glacial erratics of the Midlands. It was within the Oadby till, which is generally regarded as having been deposited by an Anglian glacier moving from the north or northeast. The erratics in this till are mostly Chalk or Jurassic, derived from East Yorkshire and Lincolnshire, along with Carboniferous pebbles from northeast England and a scatter of Scandinavian rocks, including rhomb-porphyry from the Oslo area.

The boulder is elongate, about 2.12m long, 1.24 m wide and 0.8 m thick, and weighs roughly three tonnes. It is rounded with weathered surfaces. Though smooth, one of the upper surfaces shows faint glacial striations, visible only when the light is good. On the rounded edge forming the crest there is a second, later, set of striations at an acute angle to the first. These two sets of striations may have been imposed either at the source or during transport.

The erratic is dense, pale to medium bluish grey, weathering to green and brown. There is a foliated, metamorphic fabric rock, as well as patches of coarse crystals and thin seams of fine-grained material; these represent pegmatitic and aplitic phases of a pre-metamorphic igneous rock of gabbroic composition. In thin-section, the rock is roughly foliated, greenish-grey and has a granoblastic texture with relict, coarse, greyish, ragged amphibole crystals in a fine-grained matrix. There are small acicular crystals of strongly foliated and pale greenish-yellow actinolite. Adjacent to the large amphiboles are pale gren to colourless pleochroic foliated flakes of chlorite. Fine granular aggregates of clinozoisite are associated with actinolite and chlorite. Talc and white mica occur as scarce flakes, mostly in chlorite. There are also large grains of leucoxene with euhedral shape but a granular polycrystalline structure; these are probably pseudomorphs of ilmenite. Small isolated crystals of titanite are intergrown with zoisite and amphibole. Albite is very scarce and there are rare apatite prisms. The lack of plagioclase is striking, and may suggest that the original rock was a medium to coarse-grained pyroxenite of Ca-rich gabbro.

Comparison of this rock with thin sections of British and Northern European greenschist facies metabasites has revealed no exact match (John Faithfull, pers. comm.). Samples from the Auchhoad Sill, Inverneil, Loch Fyne, are fairly close in mineralogy and texture. Another similar rock occurs at Conadh Mheadtonach, Ardrishaig, Loch Fyne. The source is clearly an area of deformed greenschist facies with metamorphosed basic intrusions. Comparable rocks are present in the Norwegian Caledonides. Derivation from the Loch Fyne area of western Scotland raises problems of how the Stretton erratic was transported across the country to be enclosed in the Anglian till of the East Midlands with its north to northeast derivation, so perhaps a Norwegian source is more likely.

Another large metamorphic erratic composed of "hornblende schist" was found in the Bassingfield gravel pits between West Bridgford and Cotgrave. No detailed petrographic description has been traced, but it appears to be a similar rock type. It was transported to Nottingham University Park by Swinnerton in 1947, who described it as a hornblende schist, and it now lies half-hidden in bushes close to the lake. Legend has it used for ceremonial purposes by Bronze Age man.

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Helen Boynton

The Great Stretton erratic.

The Bassingfield erratic.