Descriptive itineraries

The eighteen excursions in the guide are designed to cover the salient features of the geology of the area extending north from Kinghorn to Stonehaven. They are numbered from north to south and are intended as whole day and half day excursions, the approximate timing being indicated with each itinerary. Each excursion is illustrated by one or more maps on which the localities to be visited are indicated by numbers. There is a brief description in the text for each locality and each itinerary starts with an indication of the walking distance, purpose of the excursion and the route from St Andrews to the area to be examined.

The section on the geology of the area indicates which excursions serve to illustrate the different aspects of the geology. Metamorphic rocks can be seen on Excursions 2 and 4, and the Highland Boundary Fault together with the Highland Border Complex on Excursions 1 and 2. Among igneous rocks, plutonic rocks can be seen on Excursion 4, sills on Excursions 3, 8, 16, 17 and 18; dykes on Excursions 1, 2, 3, 10, 13, 14 and 15; while lavas are well exposed on Excursions 3, 5, 7 and 18. Volcanic necks are abundant in Fife and are magnificently exposed on the coast; they can be examined to advantage on Excursions 7, 10, 13, 14, 15 and 16.

Sedimentary rocks can be seen on almost all the excursions, those of the Lower Old Red Sandstone on Excursions 1, 2 and 3 in particular. The Upper Old Red Sandstone can be seen on Excursions 1, 8 and 17 mainly; the lowest Carboniferous on Excursions 9, 10, 11, 12, 13 and 17 and the Carboniferous Lower Limestone Formation on Excursions 12 and 18. Quaternary sediments are well displayed on Excursions 3 and 6.

A number of itineraries lead over high ground and these provide good views of the regional geology extending over the north-east part of the Midland Valley of Scotland. Such views are found on Excursions 3, 7, 16 and 17.

Two excursions are particularly suitable as introductory ones. Excursion 9 introduces common sedimentary rock types plus folding and faulting, while Excursion 10 displays particularly straightforwardly volcanic necks and their stages of development.

Which excursions anyone will choose will depend on their interests and time available together with the state of the tide since many excursions are inter-tidal, but the remarks of Sir Archibald Geikie, then Director of the Geological Survey, remain apposite: 'If I were asked to select a region in the British Isles where geology could best be practically taught by constant appeals to evidence in the field, I would with little hesitation recommend the East of Fife as peculiarly adapted for such a purpose. Every teacher of the science appreciates the value of a shore-section where the rocks have been dissected and washed clean and bare by the tides. Round its long stretches of coast-line, the East of Fife presents an almost continuous succession of such sections which for variety, instructiveness, and accessibility have hardly any rivals in the country.' (Geikie, 1902, p iv).

Reference

GEIKIE, A., 1902. The geology of Eastern Fife. *Mem. Geol. Surv. Scotland.*