

## Memorial of James Phemister 1893–1986

R. A. Howie

Department of Geology, Royal Holloway and Bedford New College, University of London, Egham Hill, Egham, Surrey TW20 0EX, England

Dr. James Phemister was born on April 3, 1893. He became petrographer, curator, and assistant director of the Geological Survey and Museum in London and later became editor of *Mineralogical Abstracts*, a position he held for seven years. He died on May 18, 1986, at the age of 93.

James was born in Glasgow and took his M.A. at Glasgow University in 1915 with first-class honors in mathematics and natural philosophy (the Scottish term for physics) and gained his B.Sc. with special distinction in mathematics, natural philosophy, and geology. Following war service in which he was severely wounded (1917), he was discharged and taught mathematics and science at a school in Glasgow. In 1921 he joined the Geological Survey and was appointed as a geologist on the field staff of the Edinburgh office. His early work was in the Northern Highlands of Scotland where he studied the metamorphic rocks of the Assynt area and their associated alkaline igneous suites. He received the D.Sc. from Glasgow University in 1928 for his thesis "A petrological study of the composite alkaline intrusions of north-west Sutherlandshire."

For a period in 1926–1929, his background in mathematics and physics took him to Persia with W.F.P. McLintock to begin pioneering geophysical explorations for oil using the gravity torsion balance. He later extended this interest to the British Isles and published a series of ten papers on the results of gravity surveys over dikes, buried valleys, faults, and magnetic anomalies, helping to establish the use of this technique in the investigation of geologic structures.

Following some early work in Scotland and part authorship of several Survey memoirs for the north of Scotland, he was the author of the *Northern Highlands Regional Guide* (first published in 1936, with further editions in 1948 and 1960) and also (with M. Macgregor) the *Geological Excursion Guide to the Assynt District of Sutherlandshire* (published in 1937 by the Edinburgh Geological Society and reprinted and revised in 1958, 1972, 1979). He was the sole or joint author of no less than twelve published geologic maps.

In 1935 Phemister was appointed petrographer to the Survey and moved to London, where for the next 18 years he carried out a wide variety of petrological work. This included several resource studies that led to reports on British roadstones, talc, rock wool, and petrographic contributions in numerous memoirs including the two-



volume work on the *Metalliferous Mining Region of South-West England*. In 1945 he was appointed curator of the Geological Survey and Museum, becoming assistant director in 1946. In this postwar period he produced the special report "Limestones of Scotland: Chemical Analyses and Petrography" and a paper on the riebeckite dikes of Shetland.

His purely mineralogical work included that on zoning in plagioclase feldspar, bertrandite, and beryl in the rocks of a Cornish tin mine, and merwinite in slags and datolite in a contact-altered limestone in Fife, all of it revealing meticulous attention to detail, especially in traditional microscopic petrography and mineralogy. He always showed a direct interest in the work of his staff ("What are you working on, laddie?" was the usual opening gambit).

In 1953 he relinquished his London post and returned to Edinburgh, not to retire but to work on the maps and accompanying memoirs covering most of Shetland; he continued in active geologic work for many years after his formal retirement in 1963.

James Phemister served on the Council of the Miner-

alogical Society of Great Britain for three separate three-year periods and was president 1951–1954. After his move to Edinburgh he became editor of *Mineralogical Abstracts*, a position he held for seven years. During his period as editor, he saw several important developments, not the least of which was the co-ownership agreement with MSA; at this time the *Abstracts* changed to its present size. Dr. Phemister initiated the system of National Organizers to be responsible for supplying abstracts from publications of each country, a voluntary system that remains the keystone of the present organization. Although often presenting a dour appearance, he had a keen sense of humor and a somewhat dry wit. He indoctrinated his successor as editor in a series of philosophical letters, but inculcated the appropriate style mainly through pithy and apposite remarks written on the proofs.

Phemister also served twice on the Council of the Geological Society and was awarded the Murchison Medal in 1948. He became a Fellow of the Royal Society of Edinburgh in 1931 and received its Neill Prize in 1961. He was elected a Life Fellow of the MSA in 1959 and was elected president of the Geological Society of Glasgow in 1961.

### ACKNOWLEDGMENTS

I am indebted to Ron Harrison and Peter Sabine for much help with biographical details and to the British Geological Survey for the photograph that illustrates this memorial.

### SELECTED BIBLIOGRAPHY OF J. PHEMISTER

- (with W.F.P. McLintock) The use of the torsion balance in the investigation of geological structure. *Trans. Inst. Min. & Metall.*, 38, 209–303 (1929).
- Zoning in plagioclase feldspar. *Min. Mag.*, 23, 541–555 (1934).
- (with M. Macgregor) Geological excursion guide to the Assynt district of Sutherland. *Edinburgh Geol. Soc.*, 62 p. (1937).
- Note on an occurrence of bertrandite and beryl at the South Crofty mine, Cornwall. *Min. Mag.*, 25, 573–578 (1940).
- Merwinite as an artificial mineral. *Min. Mag.*, 26, 225–230, (1942).
- (with C.O. Harvey and P.A. Sabine) The riebeckite-bearing dikes of Shetland. *Min. Mag.*, 29, 359–373 (1950).
- Limestones of Scotland: Chemical analyses and petrography. *Special Rept. Min. Resources, Geol. Surv. G.B.*, 37, 66–139 (1956).
- Rodingitic assemblages in Fetlar, Shetland Isles, Scotland. In *Advancing frontiers in geology and geophysics*, p. 279–295. Indian Geophysical Union, Hyderabad (1964).
- (with W. Mykura) The geology of western Shetland. *Memoir Geol. Surv. G.B.*, 304 p. (1976).