

ABSTRACT OF PROCEEDINGS

(CONTINUED FROM VOLUME XXIV, PAGE 301)

ONE HUNDRED AND FIFTH SESSION, 1962-63

President:

J. Phemister, M.A., D.Sc., F.R.S.E., F.G.S.

First Meeting, 11th October, 1962.—This meeting, and the remaining meetings of the session, were held at the Department of Geology, The University, Glasgow, by kind invitation of Professor T. Neville George.

Mr. S. C. Matthews, B.Sc., and Mr. D. Provan, B.Sc., were transferred from associate to ordinary membership.

Mr. A. M. Aitken, Mr. G. Herbert, Dr. J. K. Ingham, F.G.S., Mr. C. H. Jackman, Mr. P. N. Jordon, Dr. J. D. Lawson, F.G.S., Mr. A. McGiven, Mr. N. McIntyre, and Mr. F. Woods were elected ordinary members.

Professor S. K. Runcorn read a paper entitled "Continental Drift".

Second Meeting, 8th November, 1962.—Mr. A. J. D. Black, Mr. T. Gibson, M.A., Miss S. H. Henderson, B.Sc., Mr. R. J. S. McCall, B.Sc., F.G.S., Dr. W. D. Ian Rolfe, F.G.S., Miss J. F. Wilson, B.Sc., were elected ordinary members.

The following office-bearers were elected:—

Vice-President: Dr. E. M. Patterson, D.Sc., F.R.I.C., M.R.I.A., F.R.S.E., F.G.S.

Secretary: Miss H. C. Nisbet, M.A., B.Sc.

Librarian: Dr. G. Bowes, F.G.S.

Assistant Librarian: Mrs. M. Martin.

Members of Council: Mr. I. Forsyth, B.Sc., F.G.S., Miss M. M. Fotheringham, Professor T. Neville George, Ph.D., D.Sc., D.ès Sc., F.R.S.E., F.G.S., Dr. M. Macgregor, M.C., D.Sc., F.R.S.E., F.G.S., and Mr. I. Stevens.

Mrs. J. Gilchrist was elected, and Mr. A. Forrest was re-elected as Auditors.

Professor T. Neville George and Dr. M. Macgregor were re-elected as the two Society members of the Editorial Committee.

The reports of the Secretaries, Treasurer, Librarian, Editors and Excursion Secretary were submitted and approved. Also approved was the Librarian's formal request for £25 to be spent on books for the Society's library.

Dr. J. Phemister, M.A., D.Sc., F.R.S.E., F.G.S., delivered a lecture entitled "Some aspects of the geology of Shetland".

After giving a short historical survey of geological mapping in Shetland, Dr. Phemister described the present state of knowledge of its rocks and structures; he included all the formations from the gneisses and schists of Fetlar and Yell to the Old Red Sandstone of the south. The talk was well illustrated with coloured slides of the rocks and scenery.

Third Meeting, 13th December, 1962.—Mr. A. Allison was elected as an ordinary member.

Professor K. C. Dunham, F.R.S., delivered a lecture entitled "Mineralization of the English Pennines".

Professor Dunham outlined the stratigraphy and structure of three mineralized areas, in Derbyshire, a central area, and the Alston block region. The mineralization followed a systematic arrangement; for example, an inner zone was present in which every vein carried fluorspar, whereas the outer zone, where the veins carried witherite, had no fluorspar. The probable explanation appeared to be that of warm solutions spreading out laterally, precipitating high temperature insoluble minerals close to the source, and those with lower temperature insolubility further away.

A gravity survey of the region had established the presence of a gravity low, with several crests, suggesting the source of the mineralization to be a granite batholith with cupolas at a depth estimated to be less than 2,000 feet below the present-day surface.

A boring put down at Rookhope had confirmed the geophysical prediction, but had established that the granite present was not the source of the mineralization; no metamorphism occurred in the overlying sediments and the granite was immediately overlain by a conglomerate which contained fragments of the granite. The granite had been dated at Oxford as 364×10^6 (± 5 million) years and was therefore Devonian in age.

Fourth Meeting, 10th January, 1963 (Members' Night).—Mr. D. L. Burkell spoke on "Reproduction in Lithostrotiontids", showing illustrations of peripheral, lateral and parvicidal methods of budding in these corals.

Mr. M. Yuill read a paper entitled "Fossil trees at Saltcoats" (*Transactions*, Vol. xxv, pt. 1, pp. 1-3).

Mr. N. Morton spoke on "The Tertiary granophyre sheet of Raasay".

Dr. W. G. Jardine spoke on "Sedimentary structures in Lower Palaeozoic rocks from Girvan, Ayrshire, and Dalry, Kircudbrightshire".

Miss E. M. Brock spoke on the impending Summer excursions.

Exhibits illustrating some of the talks were displayed subsequently.

Fifth Meeting, 14th February, 1963.—Miss Brock introduced a Symposium on "The Southern Uplands Fault".

The introductory speaker, Professor T. Neville George, surveyed the fault in its regional stratigraphic and structural context, expressing the opinion that the principal northerly downthrow may have taken place before deposition of the Lower Old Red Sandstone, and that lateral movements on the fault are relatively insignificant.

Dr. E. K. Walton then spoke on the Glen App Fault and associated faults; along it the Ordovician rocks are downthrown to the south, horizontal slickensides probably being produced by dextral wrench movements. It was suggested that the Southern Uplands Fault may have begun as one of a series controlling sedimentation during Upper Ordovician times, and may have experienced very slight wrench movements as late as the Tertiary period.

Mr. J. F. Watt spoke on the Lammermuir Fault, and associated faults, in terms of the local Upper Old Red Sandstone stratigraphy and the regional tectonic setting. Thickening of sediments in a north-westerly direction suggests only a shallow slope being present to the north-west

in pre-Upper Old Red Sandstone times. Incipient dextral shears occurred in Hercynian times, but with no significant lateral displacement.

Dr. A. C. McLean spoke on the geological interpretation of gravity measurements over the Kerse Loch Fault, and also the Southern Uplands Fault in the New Cumnock—Dalmellington area. The Upper Old Red Sandstone and Carboniferous rocks have been folded in a monoclinial structure. Later movements might have caused different effects along pre-Hercynian lines. Comparison with other faults from type localities and with experimental models indicate that the Southern Uplands Fault has little or no strike-slip movement.

In later discussion, there was general agreement that the Southern Uplands Fault is not a tear fault and may differ from the other major Scottish faults.

Sixth Meeting, 14th March, 1963.—Mr. C. C. Bhattacharjee, M.Sc., read a paper entitled "The late structural and petrological history of the Lewisian rocks of the Meall Diese area, Gairloch, Ross-shire". (*Transactions*, Vol. xxv, pt. 1, pp. 31-60).

A paper entitled "An explosion-breccia — appinite complex at Gleann Chàrnan, Argyll" by D. R. Bowes, Mr. A. G. Macdonald, Mr. G. D. Matheson and Dr. A. E. Wright was read by Dr. Bowes (*Transactions*, Vol. xxv, pt. 1, pp. 19-30).