Vol xx] MACGREGOR—NOTICE OF JOHN SMITH.

155

No. XII.—Notice of John Smith (1845-1930). By M. Macgregor, M.A., D.Sc.

JOHN SMITH'S association with the Geological Society of Glasgow, as ordinary member from 1865 and as honorary member from 1909, extended over the long period of sixty-five years. Accordingly, it seems fitting that a brief notice of his career and a list of his more important publications should be included in the Transactions. He was born on the 14th September, 1845, at Clarkston, near Airdrie. In the following year, however, his father, who was engaged in the mining industry, was transferred to Dalry in North Ayrshire, to superintend the opening of new shafts in the rich ironstone fields of that district. He went to school in Dalry and for some time attended Irvine Academy, and then proceeded to Glasgow to serve his apprenticeship in mining and surveying in the office of Messrs. W. and J. McCreath (now McCreaths and Stevenson). During his five years' residence in the city (about 1863-1868) he made many contacts with scientific workers; he joined the Geological Society, studied botany at Anderson's College under Professor R. Kennedy, well-known as the author of the "Clydesdale Flora," and attended classes in chemistry and astronomy.

On the completion of his apprenticeship he left Glasgow to take up an appointment with Messrs. W. Baird and Co. as undermanager at Lugar and two and a half years later (about 1870) became manager of the Eglinton Ironworks at Kilwinning, a position which he held for some nineteen years. The rest of his life was passed in retirement, first at Monkredding, two miles or so north-east of Kilwinning, then at Dykes Farm, two miles north-west of Dalry, and still later at Baidland Mains (1922-1930). about three miles west-north-west of Dalry. In the early part of 1930 the Geological Society of London awarded him the Murchison Fund in recognition of his many and distinguished services to geology (see Quart. Journ. Geol. Soc., vol. 86, pp. li-lii), and in April of the same year he decided to carry out his expressed intention of presenting his valuable collections of fossils, etc. to the Geological Survey of Scotland. It was the writer's privilege to receive from Mr. Smith the letter in which he announced this

[Trans.

magnificent gift to the nation. A few weeks later the family with whom he had resided at Monkredding, Dykes and Baidlands in succession over a period of $34\frac{1}{2}$ years removed to a house near Kilwinning and it was here that he died on the 30th November.

The bibliography appended illustrates the variety of subjects covered by his investigations. With the exception of the five early years in Glasgow, his whole life was passed in Ayrshire and it was to the study of the geology, natural history and archaeology of Ayrshire that he devoted his spare time and the years of retirement he enjoyed. He was widely recognised as an authority on the geology and palaeontology of the county. His assistance in the compilation of Young and Armstrong's "Catalogue of the Western Scottish Fossils" (Blackie and Sons, Glasgow, 1876) is acknowledged in the preface to that volume. He was invited to collaborate in the preparation of the "Handbook on the Natural History of Glasgow and the West of Scotland " for the meeting of the British Association held in Glasgow in 1901, and to this volume he contributed accounts of the Carboniferous and Permian rocks of the Clyde Drainage Area, lists of the Carboniferous sponges, conodonts and echinodermata, an account of the drift deposits, a list of the fossils of the Raised Beaches¹ and a list of localities for Old Red Sandstone and Carboniferous fossils. He was a thorough and careful observer and brought unflagging enthusiasm to the task of collecting and collating his material. No praise is too high for his skill in extracting fossils from the rocks and in freeing them from their matrix, or for the patience and labour involved in mounting and labelling them. His collections of fossils, chiefly Carboniferous, will long be a storehouse of material for research. Some he described himself, others have been described and figured by fellow-workers in such publications as the Quarterly Journal of the Geological Society, the Memoirs of the Palaeontographical Society, etc. Over 26,000 specimens have been registered in the collections of the Geological Survey.

His interests took him into other fields of research. In 1895 there appeared his well-known volume on "Prehistoric Man in Ayrshire," in which he incorporated the results of long years of investigation into the evidences, of early man in the county, and in 1896 he published his "Botany of Ayrshire by Parishes, from

156

¹ In collaboration with T. Scott and J. Steel.

Vol. xx] MACGREGOR—NOTICE OF JOHN SMITH.

Original Investigation." He also prepared and published a "List of the Butterflies and Moths of Ayrshire." To the columns of the Ardrossan and Saltcoats Herald he was a constant contributor of articles dealing with the natural history and geology of the district in which he lived, and on numerous occasions conducted excursions to places of scientific interest in connection with meetings of geological and natural history societies. In such ways he did much to stimulate and encourage among others an interest in these subjects. He had considerable linguistic attainments; he taught himself Latin and Greek, could read French and German easily and translated some of Schiller's poems into braid Scots; he had some knowledge of Spanish and Italian also and at one time contemplated a translation of Burns into Gaelic.

Two things should be remembered in considering his legacy of scientific work. First, he had no formal training in geology and palaeontology, and, second, he led from about 1890 onwards a life of self-imposed retirement and immersion in the tasks to which he had set his hand. There is a story told of his last days as manager of the Eglinton Ironworks, how his employers had to remonstrate with him as regards the time he devoted to his geological researches, and finally had to inform him that he must choose between these and his official work. His reply, characteristically enough, was to the effect that "the work would just have to go." He was an outstanding example of the born naturalist, animated and sustained by an intense desire to find out all he could about the world around him and to hand on the knowledge he won for others to add to. He did not spare himself in this task and made long, and indeed at times incredible, journeys on foot in search of material. He records in one of his books that he had traversed "nearly every inch" of Ayrshire in search of the data necessary to complete it. His conclusions have in some cases been corrected or modified by the investigations of later workers but his observations and records remain as a permanent legacy, while his palaeontological collections alone, amassed throughout many years of patient and assiduous labour, constitute an invaluable contribution to Scottish science.

Many interesting details regarding his life and work, and the contacts he made, will be found in the little Biography by his friend Mr. A. Boyd, published in 1930. (103 pp. A. Guthrie and Sons, Ardrossan).

157

BIBLIOGRAPHY.

(Unless otherwise stated, references are to the volumes of the Transactions of the Geological Society of Glasgow).

- 1881. 'Notes on a Collection of Bivalved Entomostraca and other Microzoa from the Upper Silurian strata of the Shropshire District (with a provisional list of Species by Professor T. R. Jones.' Geol. Mag., Decade ii, vol. viii, pp. 70-75.
- 1882. 'On the Occurrence of Flint Nodules and Worked Flints in the Post-Tertiary Sands of the Ayrshire coast between Saltcoats and Troon.' Vol. vi, part ii, pp. 185-191.
- 1882. 'On the Geology of Dalry.' Ibid., pp. 277-282.
- 1885. 'Cleaves Cove, Dalry, Ayrshire.' Vol. vii, part 2, pp. 284-309. See also 1894.
- 1890. 'Notes on some of the Rarer Plants occurring in the Valley of the Garnock.' Trans. Nat. Hist. Soc. Glasgow, vol. ii, pp. 245-258.
- 1891. 'The Great Ice Age in the Garnock Valley.' Vol. ix, part i, pp. 151-191.
- 1891. 'Note on the Occurrence of Footprints in the Calciferous Sandstone between West Kilbride and Fairlie.' Ibid., pp. 201-203.
- 1892. 'English Upper Silurian Ostracoda.' Trans. Nat. Hist. Soc. Glasgow, vol. iii, pp. 134-158.
- 1893. 'Peculiar U-shaped Tubes in Sandstone near Crawfurdland Castle and in Gowkha Quarry, near Kilwinning.' Vol. ix, part ii, pp. 289-292.
- 1893. 'The Sand-hills of Torrs Warren, Wigtonshire.' Ibid., pp. 293-300.
- 1893. 'The Ardrossan Shell-mound,' Ibid., pp. 355-356.
- 1894. 'Monograph of the Stalactites and Stalagmites of the Cleaves Cove, near Dalry, Ayrshire.' 18 pp., 36 plates. Elliot Stock, London.
- 1895. 'Prehistoric Man in Ayrshire.' 248 pp., map and 281 figures. Elliot Stock, London.
- 1895. 'From the Doon to the Girvan Water, along the Carrick Shore.' Vol. x, part i, pp. 1-12.
- 1895. 'On a Section of Carboniferous Strata near Giffen, Ayrshire.' Ibid., pp. 25-28.
- 1895. 'The Geological Position of the Irvine Whale Bed.' Ibid., pp. 29-50.
- 1895. 'On an alleged Bed of Shells, at High Molmont, near Galston, between 400 and 500 feet above sea-level.' *Ibid.*, pp. 58-60.
- 1895. 'On a Bed of Fossil Plants, and one of Limestone with Magnesia, in the Calciferous Sandstone Series, at Meikle Busbie, near Ardrossan.' *Ibid.*, pp. 129-132. [The limestone referred to is now placed in the Upper Old Red].
- 1895. 'On a Bed of Ironstone occurring in Trap Tuff in the Parishes of Stevenston, Dalry and Kilwinning.' *Ibid.*, pp. 133-136.
- 1895. 'On a Mineral in a Fumarole at Auchenharvie Castle.' Ibid., pp. 137-138.
- 1896. 'A New View of the Arran Granite Mountains.' Vol. x, part ii, pp. 216-256.
- 1896. 'Charred Coal, with Graphite, and Discovery of Diamonds in the Graphite at Craigman, New Cumnock.' *Ibid.*, pp. 257-262.

- 1896. 'Fossil Microscopic Plants in the Fossil Amber of the Ayrshire Coalfield.' *Ibid.*, pp. 318-322.
- 1896. 'Dry River Channels in the Neighbourhood of Muirkirk.' Ibid., pp. 331-333.
- 1896. 'Pumice Pebbles in the Raised Beaches of Ayrshire.' Ibid., pp. 349-353.
- 1896. 'Records of Excursions in Ayrshire' (held between 1886 and 1895).

 Annals Andersonian Nat. Hist. Soc., vol. ii, part i, pp. 22-45.
- 1896. 'On the Discovery of Marine Shells in the Drift Series at High Levels in Ayrshire.' Report Brit. Assoc. for 1906, pp. 799-800.
- 1896. 'Discovery of Interglacial Shell-beds in Ayrshire.' Geol. Mag., Decade iv, vol. iii, pp. 286-287.
- 1896. 'The Great Submergence: an Interpretation of the Clava Section.' Ibid., pp. 498-502.
- 1896. 'The Botany of Ayrshire by Parishes, from Original Investigation,' 108 pp. A Guthrie and Sons, Ardrossan.
- 1897. 'Recent Volcanic Ash Beds.' Geol. Mag., Decade iv, vol. iv, p. 336. 1897. 'Freshwater Ostracods in the Lower Carboniferous Series of Ayrshire.'
- Ibid., p. 526.
- 1898. 'On a Section of Carboniferous Strata in a cutting of the Caledonian Railway at Lissens, three miles north-east of Kilwinning.' Vol. xi, part i, pp. 122-127.
- 1898. 'On a Globular Structure in Shale enclosed in the "Deil's Dyke," near Greenan Castle, Ayrshire.' *Ibid.*, pp. 128-129.
- 1898. "Coal Apples" from Lugton Water. Ibid., p. 130.
- 1898. "Shale Sockets" of Cement Nodules from Thornliebank. Ibid., p. 131.
- 1898. 'The Drift or Glacial Deposits of Ayrshire.' Vol. xi, Supplement; 134 pp., with map and 52 diagrams.
- 1898. 'Section exposed at the Dry Dock, Troon, Ayrshire.' Geol. Mag., Decade iv, vol. v, pp. 190-191.
- 1900. 'Conodonts from the Carboniferous Limestone Strata of the West of Scotland.' Trans. Nat. Hist. Soc., Glasgow, vol. v, part iii, pp. 336-346. See also vol. vi, part ii, 1902, p. 274.
- 1900. 'The Barite Veins of South-West Scotland.' Vol. xi, part ii, pp. 232-237.
- 1900. 'The "China-clay" Mine, and the Water of Ayr Hone-stone Bed at Troon, Ayrshire.' *Ibid.*, pp. 238-244.
- 1900. 'Palaeozoic Radiolarians, and Radiolarian Chert.' *Ibid.*, pp. 245-249. 1900. 'The Permian Outlier of the Snar Valley, Lanarkshire.' *Ibid.*, pp. 250-
- 1900. 'The Spango Granite.' Ibid., pp. 256-262.
- 1900. 'Detached Microliths from the Pitchstone Sill at Corriegills, Arran.' Ibid., pp. 275-276.
- 1900. 'The Buried or Drift-filled Channels and Glens, and the Post-Glacial Glens of Ayrshire.' Annals Andersonian Nat. Hist. Soc., vol.ii, part ii, pp. 51-56.
- 1900. (with J. Paterson and H. B. Watt). 'The Natural History of Ailsa Craig.' Ibid., pp. 135-154.
- 1900. 'Railway Sections in Ayrshire and Lanarkshire' (Darvel district). Geol. Mag., Decade iv, vol. vii, pp. 142-143.

[Trans.

160

- 1901. Contributions to 'Handbook of the Natural History of Glasgow and the West of Scotland' (see text). The geological portion of this volume was reissued, with corrections and additions, in 1904, by the Glasgow Geological Society under the title 'Geology and Palaeontology of the Clyde Drainage Area.'
- 1902. A group of short papers:—(1) 'On a Flexed Structure in the Pitchstone of Corriegills, Arran'; (2) 'On Drawn-out Spherulitic Structure in a Trap Dyke near Balloch Pier, Great Cumbrae'; (3) 'On Globular Structure in a Trap Rock near Neilston, Renfrewshire'; (4) 'On Volcanic Ash, with beds of Sand and Gravel, near Neilston, Renfrewshire'; (5) 'On a Freshwater Limestone underlying a Marine Limestone, near Paisley'; (6) 'On the Boulder-Clay of Hamilton Hill, north of Glasgow.' Vol. xii, part i, pp. 61-65.
- 1902. 'The Geology of the Elvanfoot to Wanlockhead Railway.' Ibid., pp. 81-88.
- 1902. 'Marine Shells in Boulder Clay at 1300 feet, four miles north-east of Muirkirk.' Geol. Mag., Decade iv, vol. ix, p. 479.
- 1903. 'Borings of Saxicava 300-450 feet above the Sea.' Geol. Mag., Decade iv, vol. x, p. 525.
- 1906. 'On Crystallised Carbonite, a mineral new to Scottish Carboniferous Rocks.' Vol. xii, part iii, pp. 308-310.
- 1907. 'On the Occurrence of Conodonts in the Arenig-Llandeilo Formation of the Southern Uplands of Scotland.' Trans. Nat. Hist. Soc. Glasgow, vol. vii, part iii, pp. 235-252.
- 1908. 'Discovery of Upper Coal Measure Fossils in Ayrshire.' Vol. xiii, part ii, pp. 224-234.
- 1908. (with C. T. Clough). 'The Marine Beds near the base of the Upper Carboniferous Red Barren Measures of Scotland.' In 'Summary of Progress for 1907,' Mem. Geol. Surv., pp. 127-136.
- 1909. 'Upland Fauna of the Old Red Sandstone of Carrick.' 41 pp., 9 plates, 58 figures. A. W. Cross, Kilwinning.
- 1910. 'Semi-Precious Stones of Carrick.' 82 pp., 3 plates, 68 figures. A. W. Cross, Kilwinning.
- 1910. 'Carboniferous Rocks of the Solway.' Vol. xiv, part i, pp. 30-59.
- 1911. 'Carboniferous Limestone Rocks of the Isle of Man.' Vol. xiv, part ii, pp. 119-164.
- 1914. 'The Carboniferous System of Scotland—East and West—a Palaeon-tological Comparison' (Summary only). Vol. xv, part i, pp. 109-111.
- 1916. 'Thousand Foot Platform in Arran.' Geol. Mag., Decade vi, vol. iii. p. 286.

This bibliography does not include the many short papers and notes on Natural History subjects contributed to the *Transactions and Proceedings* of the Natural History Society of Glasgow (in later years "The Glasgow Naturalist"), to the publications of kindred institutions, or to the pages of the *Ardrossan and Saltcoats Herald*. The services of Mr. R. J. A. Eckford in its compilation must be gratefully acknowledged.