Sir Patrick Geddes.

By the death of Sir Patrick Geddes (b. 1854) at Montpellier on 17th April 1932 the Royal Society has lost one of its most distinctive Fellows. Whether as botanist, sociologist, reviver of the old-time intellectual associations between Scotland and France, or as the exponent of ideas upon townplanning, which he was sometimes enabled to realise, he was always the pioneer and a unique source of inspiration to those with whom he came into contact. Recognition of his unusual gifts came slowly; it may be that a generation must pass before the full tribute will be paid.

In collaboration with his lifelong friend, Sir John Arthur Thomson, he began and finished his principal general contributions to biology in the two works, *The Evolution of Sex* (1889), and *Life: Outlines of General Biology* (1931). There was also the little volume on *Evolution* in the Home University Library in the course of this memorable association.

His connection with the Royal Society of Edinburgh began in 1880, and was immediately followed by the contribution of a series of notable papers. Their titles and dates are as follows:—

Transactions.

- "On the Phenomena of Variegation and Cell-multiplication in a Species of Enteromorpha." *Trans. R.S.E.*, vol. xxix, 1880, pp. 555–559. By Patrick Geddes,
- "Sur l'Histologie des Pédicellaires et des Muscles de l'oursin (*Echinus sphæra*, Forbes)." *Trans. R.S.E.*, vol. xxx, 1883, pp. 383-395. By Patrick Geddes and Frank E. Beddard.

Proceedings.

- "On the Classification of Statistics and its Results." *Proc. R.S.E.*, vol. xi, 1882, pp. 295–322. By Patrick Geddes.
- "On the Nature and Functions of the 'Yellow Cells' of Radiolarians and Coelenterates." *Proc. R.S.E.*, vol. xi, 1882, pp. 377-396. By Patrick Geddes.
- "A Re-statement of the Cell-theory, with Applications to the Morphology, Classification, and Physiology of Protists, Plants, and Animals.

Together with an Hypothesis of Cell-structure, and an Hypothesis of Contractility." *Proc. R.S.E.*, vol. xii, 1884, pp. 266-292. By Patrick Geddes.

- "A Synthetic Outline of the History of Biology." *Proc. R.S.E.*, vol. xiii, 1886, pp. 904-911. By Patrick Geddes.
- "Theory of Growth, Reproduction, Sex, and Heredity." *Proc. R.S.E.*, vol. xiii, 1886, pp. 911–931. By Patrick Geddes.
- "History and Theory of Spermatogenesis." *Proc. R.S.E.*, vol. xiii, 1886, pp. 803–823. By Patrick Geddes and J. Arthur Thomson.

But the strength of Geddes's genius did not lie so much in analysis as in synthesis. He realised that in every generation there will be the need for workers who, after having passed through the severest disciplines of their science, shall give themselves rather to the elucidation of its larger implications, concerning themselves with its impacts and linkages. In this connection the sweep of Geddes's mind can rarely have been equalled, while some of the practical aids in elaboration of his ideas have proved as fertile in development as the ideas themselves. His combination of the teaching of history and geography as exhibited and expounded in the Outlook Tower in Edinburgh, his establishment of residential halls for students, and his partnership in the origination of summer schools are but a few of the wide-ranging issues of his synthetic thinking that will have lasting value. Yet he was no born Schoolman, but, as it happened, the son of an Army officer, with countless other calls to service, and many other visions competing for the support and patronage of his tireless energy.

In the realm of the material and objective, e.g. in town-planning, Geddes was conservative, seeking to preserve the old whenever reasonable excuse could be found for doing so. In the realm of the mind he was liberal and revolutionary, ready always to experiment with new ideas. He had a rare gift of imagination, which served him well in every one of his multifarious adventurings. It was an unusual education to sit beside him and watch him devising graphs, formulæ, and diagrams in aid of the thesis he happened to be elaborating.

Those who studied Botany under him during his tenure of that Chair in University College, Dundee, have told how in the course of practical instruction in the garden, they would be as much impressed with his vivid sociological excursuses as with his treatment of the set preoccupation of the hour. His outlook was neo-Lamarckian rather than neo-Darwinian, and there was a temperamental touch of the mystic about him, although he would have been the last to admit the fact. He was very generous in

sympathetic understanding of, and interest in, the many peculiar situations and problems upon which men consulted him, and on occasion at critical points in individual careers gave counsel the wisdom of which became apparent with the years. He enjoyed the company of his friends, and many will treasure his memory as one of their chief possessions.

J. Y. S.