

which are somewhat more sophisticated than its place in the book would suggest and which may be omitted on first reading. Some material is set in small type to indicate that it is not central to the logical development of the subject. Each chapter ends with a collection of exercises, ranging from those which are easy or routine to those which are more difficult and interesting.

All mathematicians and students of mathematics who are interested in algebraic topology owe the authors a debt of gratitude for the production of this fine text.

W. S. MASSEY

*Opere matematiche. Memorie e Note.* By Vito Volterra. Vol. 1, xxxiii + 604 pp., 1954; vol. 2, 626 pp., 1956; vol. 3, 612 pp., 1957; vol. 4, 540 pp., 1960; vol. 5, 538 pp., 1962. Edited by the Accademia Nazionale dei Lincei, Rome. 40,000 Italian lire.

The Accademia Nazionale dei Lincei, in collaboration with the Consiglio Nazionale delle Ricerche, has successfully completed the enormous task of editing the mathematical papers of Vito Volterra (1860–1940) in the relatively short period of eight years from 1954 to 1962. The committee, always headed by the president of the Accademia, consisted originally of U. Amaldi, L. Amoroso, G. Armellini, U. D’Ancona, E. Freda, J. Pérès, E. Persico, M. Picone, A. Signorini, C. Somigliana and E. Volterra. For later volumes, B. Finzi and B. Segre very successfully carried the burden of the work left by the passing of Amaldi, Armellini, and Somigliana.

The mathematical community owes a debt of gratitude to the committee. It is a sad duty of the reviewer to mention here that after the completion of their work two more members, J. Pérès and A. Signorini, passed away.

The five volumes of these works contain most of Volterra’s mathematical papers, notes and memoirs. His well known books, some of which were written in collaboration with Pérès, Hostinski, and others, are of course not included in the present collection. Also omitted are some general addresses, obituaries, reviews, etc.

The first volume contains an address entitled “Vito Volterra” delivered by G. Castelnuovo at the inaugural meeting of the Accademia after its reconstitution in 1946. This is followed by a detailed analysis of the scientific work of the great mathematician, given by Somigliana. Finally there is a very complete biography of Volterra, written by his friend and collaborator, J. Pérès.

The papers are arranged in chronological order, beginning with a paper on the potential of an ellipsoid, published in 1881 before