

gence of continued fractions with positive and with real elements (§11 and §12) are deleted, the statement of two theorems is improved in §14, and §15 has been completely rewritten to unify the presentation of the Van Vleck-Jensen theorems with recent extensions of these theorems. Chapter III has new sections on  $C$ -fractions (§21) and some other expansions of power series into continued fractions (§31), and on the relation to  $J$ -fractions of polynomials whose zeros have negative real parts. The discussion of periodic continued fractions (§22) has been modified to include  $C$ -fractions, and parametric representation of two continued fraction transformations has been added (§26). Chapter IV has a new section on complete convergence (§38) which permits the statement of a necessary and sufficient condition for a determinate Hamburger moment problem in §39. Several sufficient conditions for determinate Stieltjes and Hamburger moment problems are deleted from §39. Chapters V and VI have been reproduced without essential change.

The stated objective of the book is to give in an easily intelligible way the present state of knowledge of the subject. The author has been confronted with the difficult task of selecting and coordinating the material of major importance and not all readers will agree with his selections. Any defects of the book are those of omission. The reviewer regrets the omission of the methods and viewpoint of positive definite continued fractions and, in particular, positive definite  $J$ -fractions. However, the numerous virtues of the book, among which are clarity of presentation, systematic citing of origins of theorems, and the many examples and formulas, will make it a valuable reference for many years to come.

W. T. SCOTT

*Combinatorial topology. Vol. 2. The Betti groups.* By P. S. Aleksandrov.

Trans. by Horace Komm. Rochester, Graylock Press, 1957. 11 +244 pp. \$6.50.

The original Russian edition of Aleksandrov's *Kombinatornaya topologiya* (Moscow-Leningrad, OGIZ, 1947) is a single volume consisting of five parts. The English translation of the first two parts has been published as Vol. 1 (See the Review in this Bulletin, Vol. 62, 1956, pp. 629–630). The present Vol. 2 is the translation of Part III (Chaps. VII–XII), which is devoted to homology and cohomology groups of locally finite abstract cell complexes and homology groups of compact metric spaces. It deals mainly with the construction of these groups and the proof of their topological invariance.

The entire book is intended as an introduction to the classical