

### *Book Selection*

branch of mathematics has to offer in their own field and secondly for research workers, teachers and students of mathematics and statistics to whom it offers a field of application which is both mathematically stimulating and practically important." Readers of the *Quarterly* who are within the second category need have no qualms, but others should take heed of the author's introductory warning: "Many social scientists who are interested in the subject matter may find themselves in difficulty." Nevertheless, they should try to follow the reasoning. Perhaps this book will help to encourage the social science departments of universities to pay more heed to mathematics than they have sometimes seemed inclined to.

A. R. SMITH

### **Mathematical Programming for Business and Industry.**

K. B. HALEY.

*Macmillan, London, 1967 (Macmillan Studies in Management). viii+156 pp. 35s.*

With the increased popularization of operational research, some interface between specialist and non-specialist is emerging. I have read two books in this Macmillan series; both seem to be aimed accurately at this interface. In the present work the non-specialist will find the going rather hard at about halfway, but he should stick at it.

The book is mainly devoted to practical modelling—adapting the standard models (especially the transportation model) to the complications of life. Such books are rare, because authors with enough experience of theory and practice are also rare.

After the customary demonstration of two-dimensional models and solutions by graphs, the general linear programming model is developed and the Simplex and transportation algorithms are illustrated. Then comes a rich variety of different forms of transportation and trans-shipment models, some fairly general and some more specialized. Chapters follow on "generalized" transportation models (variable coefficients associated with the solution values); on integer and mixed-integer models; on parametric programming; and on models which involve defining a new variable. The last chapter touches on non-linear programming and briefly describes other algorithms. There is an interesting bibliography giving references by field of application.

The approach to the correction of proofs has been grudging; about twenty apparent misprints and slips were noticed.

Otherwise this is a well-planned and absorbing book, likely to be a standard work in the field of linear program modelling.

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