than the rest of the book (four chapters) and contain some points that are not usually found in the purely mathematical texts on graphs, for example, the use of Wang algebra.

The conclusion must be that there is no compelling reason for the individual OR analyst to acquire this book for his own shelves, particularly not at its price of over £13·00, but it should have a place in the library of a company's or university's OR Department.

E. KAY

Applied Graph Theory.

CLIFFORD W. MARSHALL.

Wiley–Interscience, Chichester, 1971. 322 *pp.* £8·75.

The book could provide interesting and useful background reading but it supplies little in the way of information on techniques for solving OR problems. Indeed the author's aim is to give a basic mathematical treatment of graph theory and "... to give enough applications to demonstrate the potential of graph theory as an important area of applied mathematics while touching on topics interesting to many readers". The first six chapters are of a mathematical nature, Chapter 7 is on random graphs and Chapters 8, 9 and 10 are on applications in the areas of OR, social science and psychology and physics respectively. The chapter on OR contains quite good sections on minimal distance, PERT and network flow problems. However, it also contains sections on measurement of complexity and optimization on graphs which are likely to be of only marginal interest to OR workers. These latter topics were included in this chapter because it was felt that their wide applicability was consistent with the nature of OR.

Some specialist knowledge may be required to appreciate the applications considered but the only mathematical prerequisites are a modest knowledge of set theory, probability theory and algebra. However, the book is not light reading and a fair degree of mathematical maturity and persistence would definitely be helpful. The book is likely to be more interesting to the theoretically inclined. For example, the chapter on Hamilton graphs is largely concerned with the existence of Hamilton circuits (termed Hamilton cycles by some authors), but nowhere in the book is there a discussion on methods for finding minimal distance Hamilton circuits (the Travelling Salesman problem).

I discovered a few misprints but the presentation is quite good. There are nearly 100 exercises though no solutions. I found the book interesting and it contains material I have not seen in other texts. Unfortunately at £8·75 the price may deter many potential buyers.

T. B. BOFFEY