

concludes with a chapter on the basic problems of biology including finality, irreversibility of differentiation, the origin of life, and evolution. The final chapter of the book is entitled "From animal to man: thought and language". It contains sections on the animal mind, homo faber, homo loquax, the origin of geometry, art, human play, and the structure of societies.

Even a person lacking in the mental equipment necessary for a full understanding and critical appreciation of this book will find its reading intensely stimulating and thought-provoking. As to the difficulties he encounters reading the book, one remembers that James Hutton's important and novel ideas on geology had to await a secondary presentation by John Playfair before they were fully understood and became effective.

A. ERDÉLYI

HUMPHREYS, J. E., *Linear Algebraic Groups* (Springer-Verlag, Berlin, 1975), xv+247 pp., \$18.90.

The author's aim in this book has been to write an introductory text on algebraic groups which would be accessible to workers in associated fields, e.g. finite simple groups, infinite linear groups. This is by no means an easy task but has been accomplished very successfully and I would thoroughly recommend the book to anyone wishing to acquire an understanding of the basic ideas of algebraic groups.

The contents of the book are necessarily very similar to those of Borel's "Linear Algebraic Groups" but do include an additional chapter on Representation and Classification of Semisimple Groups. As does Borel, Humphreys begins by giving an account of the algebraic geometry required. The main differences here are that the terminology of schemes is avoided completely and also only an algebraically closed field K is considered. This latter restriction has some obvious disadvantages but does mean that one is able to obtain an intuitive grasp of the basic concepts much more easily. The treatment in this opening chapter is probably the main single feature contributing to the overall success of the book.

In the remaining chapters the treatment is closer to Borel's, the restriction to an algebraically closed field only becoming important in the later chapters. The book ends with a survey of rationality properties but can, of course, give little indication of methods of proof. However, these results can only be appreciated after obtaining the necessary background in the simpler situation and after reaching this stage those who require these results should be able to tackle the more advanced texts on the subject.

In short, this book fits perfectly into the series of Graduate Texts in Mathematics. It does not give a complete survey of the subject and does not give all the latest results which research workers in the field would want. It is a textbook on an advanced topic which many non-specialists will find extremely useful.

M. J. TOMKINSON

GILBERT, R. P. and WEINACHT, R. J. (editors), *Function Theoretic Methods in Differential Equations* (Research Notes in Mathematics, Vol. 8, Pitman Publishing, 1976), iix+309 pp., £9.50.

This book is a collection of papers arising out of an issue of *Applicable Analysis* which was planned for the 85th birthday of N. I. Muskhelishvili. The collection is made particularly valuable by the inclusion of several recent works by members of the Georgian Academy of Science of the U.S.S.R. The book is divided into three main sections: (1) Generalizations of Analytic Function Theory, (2) Integral Operators, and (3) Boundary Value Problems. The first section is concerned with various methods for