

soils and drainage patterns. The first chapter entitled, "Concepts of Photo Geology", deals almost exclusively with elementary physical geology, and barely mentions photo geology. The emphasis is on landscape forms which are well illustrated with vertical stereo photographs. The only photo relating to soils is a nine panel multi-band print containing a considerable amount of useful information which, unfortunately, the author does not adequately utilize or explain.

The first part of the third section deals with the air photo interpretation of streams, rivers and lakes, while the second half gives three interesting and rather unusual examples of the use of aerial photographs in the study of water pollution, aquatic vegetation surveys and fish kills. The only colour photographs in the book are four obliques used to illustrate these three topics.

It is obvious that the author's main interest and experience is in the field of photo hydrology. The problems of water supply and water pollution are both major and world wide, and the author has clearly shown that the utilization of aerial photographs can play an important part in tackling these problems.

The book is extensively illustrated and contains many half-tone reproductions of aerial photographs, but no originals. Most of these are small stereopairs which show considerable variation in print quality. For "home study" students it would have been useful to have had a selection of ground photographs to illustrate some of the main features shown on the aerial photographs. The references are not systematically listed but are given in the text, or in footnotes, or at the end of each section.

As a textbook dealing with the "techniques" of air photo interpretation it has some deficiencies; nevertheless, it is a valuable book in that it shows some of the more unusual fields in which aerial photographs can usefully be used.

W. GORDON COLLINS

## FIELD DATA

### The Collection and Processing of Field Data

(A CSIRO Symposium.) Edited by E. F. Bradley and O. T. Denmead. Pp. xix+597. (New York and London: Interscience Publishers, a division of John Wiley and Sons, 1967.) 165s.

ADVANCES in research are often retarded because scientists and technologists trained in different disciplines frequently find it difficult to appreciate each others' problems and to pool techniques to deal with them. This difficulty is especially common between scientists who study environmental and biological phenomena, which by their nature create special problems of instrumentation, sampling, recording and data treatment, and engineers who design and manufacture the apparatus used. This collection of thirty-six papers is an attempt to improve methods of collecting, processing and interpreting field data, by defining the problems common to various field disciplines, including plant and animal ecology, hydrology, meteorology, oceanography and soil physics, and by fostering an interest between field and engineering scientists. The publication contains a wealth of up-to-date information on the design of measuring techniques, data collecting and processing systems, and computers, and no doubt those present at the symposium derived great benefit from their discussions.

Unfortunately, in the printed form, the aim of the symposium is not fully realized. This is partly a result of the wide scope of the field subjects included; for example, soil physics and animal ecology have little in common at the levels considered. It is also because the editing is poor. It is not enough that editors should rearrange papers and discussions for publication; they should insist that the onus of making the text intelligible

lies on the author, not on the reader, and that technical or specialized terminology be kept to a minimum. Failing this, a glossary of technical terms and jargon would help. Some of the contributions, for example, by Van Bavel on "Use and Abuse of Information Processing by Machine" and Chapman on "Measurements for Water Resource Assessment" are lucidly conceived and presented, showing that mutual understanding and stimulation can develop when contributors look beyond their own narrow interests. It is a pity, therefore, that much of the value of this unique collection of papers may be overlooked by the intended audience because of hurried and superficial editing.

Nevertheless, it is recommended to any scientist concerned with the collection and processing of complicated field data, though it will disappoint many biologists with its single contribution on plant ecology and only three on animal ecology; micro meteorologists, hydrologists and oceanographers will probably find it more helpful, and engineers will appreciate better the complicated interactions between the variables that field scientists attempt to measure. At £8 5s. per copy and with only a small proportion of the book relevant to most individual scientists, it is a volume to borrow rather than to buy.

T. LEWIS

## University News

**Professor F. L. Whipple**, director of the Smithsonian Astrophysical Observatory, has been appointed Phillips professor of astronomy in **Harvard University**.

## Appointments

**Mr D. E. Warren** has been appointed the director of overseas surveys of the Ministry of Overseas Development in succession to **Mr W. D. C. Wiggins**. The directorate provides aid to developing countries overseas in the fields of land survey, air photography, basic mapping and land resource investigation.

**Dr M. A. T. Rogers** has been appointed acting secretary of the Royal Institution on the resignation of **Brigadier H. E. Hopthorpe**.

## Announcements

The following four engineers have been elected to the council of the US National Academy of Engineering: **Henri Busignies**, senior vice-president and chief scientist, International Telephone and Telegraph Corporation, New York City; **Walter R. Hibbard, jun.**, vice-president for research and development, Owens-Corning Fiberglass Corporation, Granville, Ohio; **L. Eugene Root**, president, Lockheed Missiles and Space Company and group vice-president, Lockheed Aircraft Corporation, Sunnyvale, California; **Chauncey Starr**, dean, College of Engineering, University of California at Los Angeles.

## CORRESPONDENCE

### Climate versus Man and his Animals

SIR,—In your issue of May 18 (*Nature* 218, 641; 1968) R. E. McDowell examines some of the physiological limitations which hold back livestock production in the tropics, but no mention is made of the means of greatly extending these limits that lies in the potential for new domestication among wild herbivores.