

value is lost because they are never referred to and because they appear to have been scattered at random throughout the text. Surely it would not have been too difficult to locate these alongside the relevant paragraphs. Again, the value of the photographs would have been much increased if they had been incorporated into the text with a little more imagination. Why, for example, are the chapters on the heroic days of exploration before 1920 illustrated by photographs of technological devices such as tractor convoys and helicopters?

But these are small criticisms when set against the superb appearance of the book and the simple yet authoritative tone of Frisrup's text. There is a great deal to absorb the attention of both the scientist and the layman in this, "the first book to describe the exploration of the ice cap in Greenland." Not least, there will be many who will appreciate his succinct summaries of past and present glaciological thought in the last 80 pages of the book.

B. S. JOHN

*Department of Geography,  
University of Durham,  
Durham, England*

## Fish Paleontology

**Fossil Vertebrates.** Papers Presented to Dr. Errol I. White. COLIN PATTERSON and P. H. GREENWOOD, Eds. Published for the Linnean Society by Academic Press, New York, 1967. viii + 260 pp., illus. \$11.50. *Journal of the Linnean Society of London (Zoology)*, vol. 47, No. 311.

This festschrift, presented to Errol I. White on the occasion of his retirement from the keepership of the Paleontology Department, British Museum (Natural History), should be very useful as a general summary of the paleontology of fishes up to the date of its publication. Only three of the papers do not concern fishes, and the volume presents, in addition to the latest ideas of specialists, an up-to-date bibliography aggregating about 200 entries, as well as White's own bibliography of 116 entries.

The abundant illustrations are of uniformly high quality. They are especially useful to workers who, like the reviewer, retain an interest in the "funny fishes" but who often have difficulty in remembering which are which; the illustrations help one keep track of the various Paleozoic "fish" both for teach-

ing purposes and for general orientation.

The hazards of diffuseness and variety of style chronic to festschriften leave their mark on this volume also, because of the number of authors or pairs of authors (19) and the number of points of view (19). However, what emerges most clearly is an impression of dynamic progress in fish paleontology since World War II.

NICHOLAS HOTTON

*Division of Vertebrate Paleontology,  
Smithsonian Institution,  
Washington, D.C.*

## Progress Reports in Genetics

**Cold Spring Harbor Symposia on Quantitative Biology.** Vol. 31, The Genetic Code. Cold Spring Harbor Laboratory of Quantitative Biology, Cold Spring Harbor, N.Y., 1966. xxii + 762 pp., illus. \$15.

This book contains the written versions of the talks delivered at the 31st Cold Spring Harbor Symposium, held in June 1966. Considering the progress made in our understanding of the genetic code since 1961 (when it was discovered that polyuridylylate specified polyphenylalanine in an *in vitro* system), "it seemed," says the foreword, "to be the right moment to hold a meeting and draw together, once and for all [*sic*], the many contributions to this solution"—referring to the fact that, in 1966, it was possible to show, as Crick does on page 1 of the volume, the "best allocations" of the 64 possible triplet codons in *Escherichia coli*. "Progress," in the sense of "many contributions," is certainly indicated by the 87 papers (with an average of 3 or 4 authors on each). But the designation of a "right moment" to "draw together" reports on such a heterogeneity of independent ongoing research enterprises may be regarded as enthusiastic poetic license, although seconded by Crick's statement—in the only essay attempting a historical survey (1944–196?)—that "this . . . is the first important [meeting about the genetic code] since the code became known."

The contents of the book, as of the meeting, may be regarded as progress reports from each of the many laboratories represented by the authors, and—as with the meeting itself—will be of (already somewhat dated) value to those actively engaged in research in the field. The 87 papers are grouped into 12 sections (Codons *In Vitro*; Directions of Reading; *In Vivo* Code and Polarity;

Polarity; Punctuation; Control of Gene Expression; Chemistry, Function, and Interactions of tRNA; tRNA and Ribosomes; Infidelity of Information Transfer; Origins of the Code), and none of these is individually summarized. Some of the individual papers include summaries; many do not. Most are concerned with the most intimate details of experimental procedures, few with anything approaching wide-ranging discussion or speculation. In sum, the book is a source of experimental detail and of references for those already active in fields represented; it is not a book to be read sequentially or completely, nor one that will give the uninitiated a broad view of this or of any large area of contemporary molecular biology.

The expression of individual egos and lack of cohesion that characterize the literature are apparent here as well. Cross-references to pertinent work of others tend to be brief and pro forma, not searching or synthetic. Heterogeneity is furthered by rugged independence in such matters as terminology and symbolism (relatively unhindered, probably because of the physical impossibility of bringing editorial pressure to bear upon such a diversity of authors within the time allotted for preparation of the volume).

Although the volume has some reference value to the cognoscenti as noted above, the delay and expense of producing it give rise to serious questions as to the value of the effort, and to the thought that—as with the highly regarded Gordon Conferences—perhaps "work conferences" limited to those active in the field (about 300 attended the symposium, overall) are best either not reported at all or reported by a single person in a few pages rather than by simply binding together individual papers, each constructed at the home laboratory and not necessarily giving the content, the flavor, or the significance of the actual oral presentation. Added to these concerns is the thought that, with the rapidity of progress in this large area, such reports as are included in this volume are almost like news or like radioisotopes, of temporary rather than lasting value, and should perhaps, as was semi-seriously suggested for a similar compendium, be printed in vanishing ink with a well-chosen half-life, and with little attention to the details that attend an archival destiny.

W. E. COHN

*Biology Division,  
Oak Ridge National Laboratory,  
Oak Ridge, Tennessee*