and then hewing the ethnography and the theory out of the rock of one's psyche, let him first read the corpus of Malinowski's work and then come to these journals. And if he wants to clinch the point with negative instances, let him do the same for Morgan or for Boas. Malinowski's diaries are the private notes of a man who is alternately enthralled and tortured by himself and his experiences. They form one of the most poignant records available of the personal horrors of what is today glibly called "culture shock." Malinowski did not share with Boas or the Anglo-Saxons the tradition of never admitting to himself that he felt lousy, that he suffered from vast personal insecurities, that he was randy from time to time, that he had dreams with meanings, and—most touching of all—that when he was most lonely in this strange and beautiful and distasteful work, he missed his mother. I dare any of my own generation to be so frank—or so revealingly to the point.

In the hyperbolic suffering of Malinowski and the stoic unsuffering of Boas, cultural and social anthropology became a social science instead of a field of curiosa. All anthropology before that time properly belongs to the realm of history—the social history out of which anthropology grew. There is a great deal in what came before these two monumental figures that foreshadows their concerns and ours—but so is there in Aristotle. I would, in fact, place the development of modern anthropology as stemming from the teaching and university work of Boas, the fieldwork and the protestations of learning to interact with "natives" of Malinowski, and the 1930 debates between Linton and Radcliffe-Brown (neither of them considered today to have been good fieldworkers) about society and culture: that is, with the development of the department at Columbia University, with the fieldwork in the Trobriand Islands, and with the development of role theory.

There seems little doubt that the late 20th century will be remembered in history for formulation of social science, just as the first part of the century will be remembered for maturation of natural science. These books, with some others of the past few years, provide a fascinating account of the "prehistory" of that formulation.

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Visual Systems

The Functional Organization of the Compound Eye. Proceedings of an international symposium held in Stockholm, October 1965. C. G. BERNHARD, Ed. Pergamon Press, New York, 1966. 605 pp., illus. $19.50.

Unlike what happens with many other international symposiums, the proceedings of this one were published within a year and contain more than a rewrite of work already in print elsewhere. In fact, this is the first major book devoted exclusively to the compound eye since Exner's classic of 1891.

As might be expected, a good proportion of the volume is concerned with the work of Hartline and his collaborators and students on *Limulus*. One continues to be amazed at the clarity with which we now see the details of the physiological mechanisms of this eye as a result of their work.

Reading this book we become aware of the many reasons for studying compound eyes—apart from the fact that, by many orders of magnitude, more animals alive today possess compound eyes than simple eyes. For example, one may find a different method of stimulus analysis, one not exhibited by vertebrate eyes. Such is the demonstration by Waterman that the eyes of *Daphnia* possess the capacity to detect the polarization of light. Again, the discussion on the resolving power of compound eyes continues its fascinating course, and new, subtle points concerning image formation are being raised.

Lest the majority of students of the visual apparatus, who work with the vertebrate visual system, be tempted to overlook a book on the compound eye, let them reflect on the facts that the single-unit studies on *Limulus* led to similar studies on vertebrates by Hartline, Barlow, Kuffler, and Hubel and Wiesel; that the parametric feedback model of the *Limulus* eccentric cell by Fuortes and Hodgkin led to Rushton's theory of human visual adaptation; and that Ratliff and Hartline's work on inhibition has had a phenomenal excitatory effect on neurophysiology in general. Similar precursors of important vertebrate studies are surely contained among the 36 contributions in this book. To try to pick them would be an interesting game: this reviewer would point to the type of work reported by Reichardt's and Horridge's groups.

The book is beautifully produced. It lacks an index and is perhaps the poorer for not conveying to the reader the added insight and perspective brought to light at "live" symposiums by the discussion. Its careful perusal is a rewarding experience, highly recommended by this reviewer.

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Radioactive Tracer

Tritium and Its Compounds. E. ANTHONY EVANS. Van Nostrand, Princeton, N.J., 1966. 455 pp., illus. $15.

In the past decade, growth in the use of tritium and compounds labeled with tritium has been phenomenal. But future use of the isotope will be even more spectacular, because modern instrumentation for liquid scintillation counting of beta radiation has solved the analytical problem that restricted early progress, and has made many applications of tritium practicable. The unique properties of the isotope, its low cost, the ease of preparing labeled compounds, and the simplicity of the analytical methods make work with this isotope particularly attractive. The book was written "primarily to guide and to encourage the research worker to examine the many opportunities which tritium offers as a radioactive tracer."

The book is exceptionally easy to read. Historical material and descriptions of unique applications of the isotope, interspersed with discussions of the peculiar properties of tritium-labeled compounds, hold the reader's interest and fill him with the desire to take advantage of the manifold opportunities of using tritium in his own research.

The fascinating text treats in depth the use of tritium in biological and chemical research, the preparation of tritium-labeled compounds, methods of analysis, and unique problems encountered in the use of the isotope. Readers are referred to the original papers for experimental details; but the author's evaluation of past work is extremely valuable, because he provides first-hand information obtained in the course of his work at the Radiochemical Centre at Amersham.

This is a stimulating book. Descriptions of past triumphs in research made possible by the use of tritium