Book Reviews

The Making of a Social Science

Pioneers of American Anthropology. The Uses of Biography. Edited by JUNE HELM. University of Washington Press, Seattle, 1967. 261 pp. $5.95. American Ethnological Society Monograph No. 43.

The Bureau of American Ethnology. A Partial History. NEIL M. JUDD. University of Oklahoma Press, Norman, 1967. 151 pp., illus. $4.95.

A Diary in the Strict Sense of the Term. BRONISLAW MALINOWSKI. Translated from the Polish by Norbert Guterman. Harcourt, Brace, and World, New York, 1967. 337 pp. $6.95.

Neil Judd, in his book on the Bureau of American Ethnology, notes that John Wesley Powell, its first director, "lived in the present and he had supreme confidence in his own achievements." It is a charge that is often made against all anthropologists, even today, by historians who hurl such unlikely epithets as "presentistic."

Yet times—and perhaps personality types as well—seem to be changing. There has been an absolute rash of anthropological history-mongering in the last few years. The Social Science Research Council sponsored a conference on the subject, at least two organized series of anthropological classics are being published, there is at least one historian who specializes in the history of anthropology, and—perhaps most significant of all—anthropologists are themselves turning more and more to speculation and investigation of "how it happened." Margaret Mead edited the diaries, notes, and occasional writings of Ruth Benedict (*An Anthropologist at Work*); several anthropologists have written their professional memoirs (Hortense Powdermaker's *Stranger and Friend* is the fullest and best of those I have read); several graduate departments of anthropology now grant degrees in anthropology for what amounts to historical research in the subject.

The trend seems to be running full spate when one considers the three books under review here. June Helm and the contributors to *Pioneers of American Anthropology* (it is notable that this book is a subscription monograph of the American Ethnological Society) are investigating the professionalization of the subject at the turn of the century and just after; Neil Judd has charted the development and demise of what is undoubtedly the largest and most comprehensive program of ethnographic research ever sponsored by any government (however niggardly the sponsorship may have seemed); and Bronislaw Malinowski's widow has chosen this time to release transcripts of diaries that he kept during field trips to New Guinea and the Trobriand Islands.

The reasons why anthropologists are prying into their own forebears, their professional genealogies and myths, are not hard to find. Anthropology seems to outsiders to have no history. We anthropologists all tell ourselves that we are still a "young science." One is reminded that even today—but certainly by consensus before the second World War—America calls herself a "young country," in spite of the fact that she has one of the longest-standing governments in the world. When anthropologists make a discovery, the rate at which that discovery spreads into the community and becomes part of "what everybody knows" is very rapid. Thus, anthropologists do not so much "pile up a past" as directly influence the social history of their times, upsetting the old "common sense." Their theories are usually misunderstood by laymen and soon become the "new common sense" that must in its turn be superseded. And when that happens, it becomes necessary to go back to find out what our forebears were actually about. Only when we are far enough removed—and only with the historian's eye—can we see the magnitude of the changes that anthropology has wrought in the Western community.

A number of facts stand starkly exposed by the juxtaposition of these three books. First of all, there is the degree of isolation of American anthropology from its European counterparts until well into the 20th century. Second, there is the important part played by women in the development of the subject. It is not merely that Nancy Lurie has given an excellent—and very funny—account of early American female anthropologists in the *Pioneers* volume, it is that being female is not a disadvantage in fieldwork and writing ethnology (although it may be so for getting ahead in the university communities in which most anthropologists are immured). The stories of Mathilde Stevenson, Zelia Nuttall, and Elsie Clewes Parsons (the latter the first woman to be a professional by present-day standards) are fascinating indeed. So are the stories of Powell himself, of Cushing, and of Boas. Third, there is the degree to which anthropology as a discipline still resembles a *Gemeinschaft* with, as June Helm puts it in her introduction, each of its intellectual barrios having its patron saint.

It also becomes obvious that anthropology as we practice it today really did not come into existence until sometime in the early 1920's. The modern reader squirms as Boas confides to his journal (skillfully edited by Ronald Rohner in the *Pioneers* volume) that he could not do any work on this day because the Indians were too busy performing ceremonies to give him any information. The reader is both amused and astounded to see the terrible importance attached by Zelia Nuttall to a specific rendering of a Maya codex and the amount of agony that went into her professional battles. But the *pièce de résistance* is the diary Malinowski kept during his first and third tours in New Guinea and the Trobriand Islands. It is my opinion that most reviewers of this book, even anthropologists, have approached it quite uncomprehendingly. Malinowski was among the very first of all cultural anthropologists both to be professional and to undergo total immersion in field research. Frank Cushing had had the immersion; Tylor was professional, but had no fieldwork at all; Boas was professional but was sprinkled, not immersed. If anybody doubts that the best cultural anthropology is done by exposing the entire personality to a new learning experience

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