

by Hopi custom to claim Hotevilla's chieftainship. It should have passed to Yokioma's sister's son, and many of his fellow-villagers regard Dan as a trouble-maker.

*The American Indian as Hunter.* JOHN WITTHOFT. (Reprints in Anthropology No. 6.) (Reprinted from Pennsylvania Game News, vol. 24, nos. 2, 3, 4, 1953.) Harrisburg: Pennsylvania Historical and Museum Commission, n. d. 18 pp., 8 figures. n.p.

*A Brief History of the Indian Hunter.* JOHN WITTHOFT. (Reprints in Anthropology No. 7.) (Reprinted from Pennsylvania Game News, vol. 25, nos. 6, 7, 8, 9, 1954.) Harrisburg: Pennsylvania Historical and Museum Commission, n. d. 25 pp., 12 figures, 2 time charts. n.p.

Reviewed by WILLIAM C. STURTEVANT, *Bureau of American Ethnology, Smithsonian Institution*

These pamphlets make available a series of delightful articles originally published in an obscure place. They represent popularized anthropology at its best: beautifully written, intelligent and not patronizing, iconoclastic but convincing. The first discusses the cultural context and functions of hunting among eastern Indians in the early historic period, with particular attention to its philosophical, religious, and sociological concomitants. The synthesis is principally (and explicitly) based on the Northern Iroquois, Delaware, and Cherokee. Revealing contrasts are made between the implications of hunting for European peasants, their American descendants, and the Indians. The second pamphlet is an outline of the economic and sociological history of the northeast, deduced from archeological evidence from the Paleo-Indian period to the European conquest. Supplementary and contrasting data are drawn from other regions. In the concluding section there is a striking but sensible general interpretation of the meaning of the American frontier.

The viewpoint expressed here is sometimes novel but always well-considered, and the interpretations are firmly grounded on wide and perceptive ethnological field experience in the east, on archeological field work mainly in Pennsylvania, and on a thorough knowledge of the anthropological and historical literature. Any reading list on the American Indian or general anthropology would be enriched by the inclusion of these two items.

*Glacial and Pleistocene Geology.* RICHARD FOSTER FLINT. New York: John Wiley & Sons, Inc., 1957. xiii, 553 pp., 140 figures, 5 plates, 51 tables. \$12.50.

Reviewed by JAMES B. GRIFFIN, *University of Michigan*

This volume is a revised and more comprehensive treatment of glacial and Pleistocene geology than Flint's 1947 publication, *Glacial Geology and the Pleistocene Epoch*. Many of the plates, figures, and tables are the same or slightly modified, but new illustrations, correlation tables, and other features have greatly improved the presentation.

Archeologists will be the most interested in this summary, because of the considerable interrelation between Pleistocene and Recent events in man's cultural history in many areas of the world. Indeed, a comprehension of the processes and features of the last major geological period is basic to archeological interpretation.

The early chapters summarize modern knowledge of the formation, advance, and decline of glacial masses, the similarities and differences between montane and continental glaciers, the areal distribution and volume of current and past glaciers, the

effects of glacial movement in sculpturing the land, and describe the various types of glacial deposits and related physiographic features and their significance in interpreting glacial history. The central part of the book summarizes the geography of North America during the Wisconsin glaciation, the stratigraphy of Cordilleran and Central North America, and the former glaciers and stratigraphy of Europe. These sections are relatively complete and detailed, for most studies of the Pleistocene have been made in these two areas.

One of the new chapters is on the stratigraphy of ocean floors, an area of interpretation of Pleistocene events which has been largely developed since 1945. Such studies have been particularly valuable in providing a means of correlating ocean temperature changes with those on land, and an estimate of the temporal extent of climatic changes beyond the reach of radiocarbon dating.

Among the improved sections are the discussions of Pleistocene fossils, with tables of European and North American vertebrate faunas; a chapter on chronology; and a chapter devoted to "The Problem of Causes." There is a selected list of references, part of which were published during the last ten years. A glossary would have been a valuable addition to the book, for technical terms often appear a number of times before a definition is provided. While this may not be needed by glaciologists, it would be a help to beginning students and to specialists in other fields.

In Chapter 26, "The Record of Pleistocene Fossils," Flint devotes little more than three pages to "Early Man" in the eastern and western hemispheres; there is also a table giving a "Generalized Correlation of the Human Record with Geologic Stratigraphy." My reaction to this presentation is that it should have been expanded or omitted altogether. Flint does acknowledge the aid of prehistorical studies to Pleistocene geology in some parts of the Old World.

Flint believes the Pleistocene was caused by climatic changes set in motion by extensive mountain-building during Pliocene-Pleistocene times, accompanied by solar variation. He recognizes that other contributing factors may be found in "changes in the composition and turbidity of the atmosphere and changes in the Earth's axis and orbit," but there is still no adequate understanding of the factors which produced major glacial phenomena.

One of the most important changes in the new volume is the treatment of the effect of radiocarbon dating on temporal placement of geological events of the last thirty to fifty-thousand years, and the effect of other radioactive dating techniques for longer periods of time. I think they have altered older interpretations more than Flint implies, and have been a stimulus to reconsideration of earlier work and to new field studies. Unfortunately, he suggests that the word "chronology" should be limited to a listing of events in an absolute calendrical sequence.

The Ontario Geological Survey has located a number of copper-bearing formations on the east side of Lake Superior, and there are a few prehistoric pits in the Point Mamainse area. This suggests that the origin of the float copper found in Ohio deposits, as shown in Flint's Fig. 7-13, may not be the Keweenaw peninsula, but instead could be the east side of Lake Superior. This might better fit the general area of derivation of most of the Ohio deposits.

This volume is a standard reference and introduction to glaciology and the Pleistocene. It is the work of an outstanding investigator whose breadth of coverage, intimate association with many of the areas of research, command of the world's literature, and balanced judgment make this a sound and comprehensive survey. The rapid changes

now being made in the interpretation, correlation, and age of the Pleistocene formations will make another edition necessary in ten years or so.

*Native Tribes of Canada.* DOUGLAS LEECHMAN. Toronto, Canada: W. J. Gage & Co. Ltd., n.d. ix, 357 pp., glossary, illustrations. n.p.

*Reviewed by* MAY M. EDEL, *New School for Social Research, N. Y.*

Leechman's book is essentially a systematic museum guide, somewhat pedestrian but well-organized and clearly presented. The account is watered down to meet the reading and comprehension level of the younger readers for whom it is obviously intended. Each culture area is surveyed, in a uniform format which gives most space to material culture traits, and disposes briefly of some highlights of social organization. In each case, lists of tribes are included, and some indication is given of their present situation. Unfortunately, the prosaic presentation blurs the differences between the different cultures, which do not stand out as sharply-etched pictures. The best written parts of the book are the myths. One typical myth is recounted for each area, but it is too bad that their vivid style could not have been maintained throughout.

The illustrations are sketches of museum materials, most of them of single artifacts. They are not particularly well chosen for interest or balance, so they lend little support or appeal to the text.

On the whole, the book will probably meet the "research" needs of the elementary school class room, particularly in Canada, but it will hardly tempt the student to browse beyond his particular assignment.

*Richard Wetherill: Anasazi.* FRANK MCNITT. Albuquerque: University of New Mexico Press, 1957. xii, 362 pp., appendices, 4 drawings, 18 photographs, 5 maps. \$10.00.

*Reviewed by* ERIK K. REED, *National Park Service*

Among pioneers and old-timers in the San Juan region—the Four Corners country—the Wetherills of Mancos and Kayenta are, or were, the most noted and widely known; but the oldest and, at least to archeologists, most important of the brothers has been comparatively unknown. This deficiency has in large part been remedied by McNitt, a journalist whose interest in the general subject became focused on the circumstances of Richard Wetherill's life and death and on the several injustices done him and the numerous difficulties he faced.

The book is a chronicle of Richard Wetherill's activities, particularly in archeological work, rather than a biography; no clear impression of a personality comes through. The subject is presented—very possibly correctly, or almost entirely so—as a persecuted hero, always in the right. The narratives of discovery and investigation of the major cliff-dwellings of the Mesa Verde, of the Basketmaker sites in Grand Gulch, of Keet Seel—all Richard Wetherill "firsts," including recognition of the Basketmakers—and that of his Hyde Exploring Expedition excavations in Chaco Canyon in the 1890's at Pueblo Bonito, are valuable as well as interesting; this is an important contribution to the history of Southwestern archeology. The description of Richard Wetherill's death (murdered by a Navaho Indian on June 22, 1910) is moving and vivid writing, without being at all overdone—a definite, if perhaps minor, contribution to Southwestern historical literature.