

the eccentric Britishers King and Belcher, the generous Americans, De Haven and Kane, the indefatigable whaler Penny, the Arctic veterans John and James Ross and a host of others.

The author relates how Dr. John Rae of the Hudson's Bay Company made a number of extensive overland journeys. In 1853-54 he found the first evidence of the missing expedition, obtaining much information from the Eskimos in the Pelly Bay area. As a result Lady Franklin entrusted command of a search expedition to Captain Francis Leopold McClintock, who was later made an Admiral and knighted. Sailing in the 177-ton *Fox* in 1857 he returned to England in 1859 with conclusive evidence on the fate of Franklin. McClintock stated that after the Franklin expedition had been hemmed in by ice for a long time and many men had died of scurvy and other ailments, the survivors had been forced to abandon the ships. Then followed a tragic trek down King William Island to the Great Fish River. McClintock had discovered skeletons and other relics, and Eskimos who had witnessed the death march told him, "They fell down and died as they walked along".

Dr. L. H. Neatby is Professor of Classics, Saskatchewan University. "Search for Franklin", with its illustrations, maps and bibliography is a splendid addition to the four other books he has written on Arctic exploration.

A. Stevenson.

**BIBLIOGRAPHY ON NORTHERN SEA ICE AND RELATED SUBJECTS.** J. D. BRADFORD and S. M. SMIRLE, compilers. *Canada, Marine Operations, Ministry of Transport, and Marine Sciences Branch, Department of Energy, Mines, and Resources, 1970. 8½ x 11 inches. 188 pages.*

This bibliography of 1620 entries may be seen as updating and replacing the U.S. Navy's *Bibliography on ice of the northern hemisphere* (U.S.H.O.Pub. 240, 1945), a work of comparable size. Both are basically concerned with ship operation. But whereas the earlier work was arranged regionally, this one (reflecting the advance in sea ice studies) is arranged thematically. The subsections are Mechanics and strength; Operations and ship design; Observations, subdivided into Atlases and periodicals, Early (1825-1945), Recent (1945—) and Drift and movement; Environment, subdivided into Meteorology and Oceanography; Forecasting and reconnaissance; Nomenclature; and Miscellaneous.

There is an index of authors, both individual and corporate.

It is fair to say that the most important work in sea ice studies is included here. A distinct advantage is that the bibliography includes much material that is either unpublished or on the borderline between published and unpublished: departmental reports, and such-like. This is specially useful for distributional data in the "Observations" section. It is also good to see so much Russian material included.

A spot check against the library catalogue of the Scott Polar Research Institute showed that the relevant works of four glaciologists active in this field (I. S. Peschanskii, B. A. Savel'ev, P. A. Shumskii, W. F. Weeks) totalled 37 in the bibliography, 45 in the SPRI catalogue. The difference over entries on ship design and associated ice topics was of at least the same order, even though some of the bibliography entries are rather slight and ephemeral pieces of journalism not included in the SPRI catalogue. All bibliographies have omissions, of course (and so does the SPRI library), so this need not necessarily be too serious. Indeed, a bibliography may attempt to weed out once-relevant material which happens to have been superseded. A more damaging omission, however, is Risto Jurva's important paper on Baltic ice in *Fennia*, Vol. 64, No. 1, 1937, pp. 1-248. An underlying problem here is that in respect of many physical properties, sea ice is not fundamentally different from ice in other locations; so it was obviously hard to draw the line in the section on "Mechanics and strength", which includes some general papers (by J. W. Glen, for example), but not others (J. F. Nye, P. A. Shumskii).

The most irritating faults are at the lowest level, of literal accuracy, lay-out, and style. There are mis-spellings: Cotle (entry 179) for Cotell, Aleeksev (592) for Alekseev, Sadkov (1200) for Sadko, Laktionev and Drenliug (439) for Laktionov and Dremljug. Titles of papers are not exact (296), and are generally not given in the original language. Transliteration from Cyrillic is inconsistent: Khejsin (430), Kheisin (431). Entries for papers often lack pagination (7,56,64,72,73,81 etc.), and sometimes lack the title of the book they appeared in (219, 222) or adequate information to locate the work except by writing to the publisher or the library where it was catalogued (23, 835). Certain abbreviations are not listed (R for Russian, G for German). Style and punctuation are not consistent, and italics are used for the title of a paper and not the book or journal it appears in, the reverse of normal practice. All this adds up

to more than just unprofessional workmanship; it can seriously hinder finding an entry.

The bibliography has the appearance of being basically a listing of the relevant holdings of half a dozen libraries in Ottawa and Montreal. As such, it has value. But it is a pity that more trouble was not taken over the seemingly small points.

*Terence Armstrong*

**KIJIK: AN HISTORIC TANAINA INDIAN SETTLEMENT.** BY JAMES W. VANSTONE and JOAN B. TOWNSEND. *Fieldiana: Anthropology, Volume 59. Chicago: Field Museum of Natural History, 1970. 6 x 9 inches, 202 pages, 29 figures, 23 plates. \$8.00.*

Most early archaeology in western and northern Alaska, like the early ethnography, focused upon the Eskimo. Again like early ethnography, such work was more descriptive than analytical, and its theoretical orientation concerned itself largely with problems of historical reconstruction in an attempt to work out the development of Eskimo culture. The last few decades have witnessed many changes in the archaeological scene. The time span has now been pushed back well beyond the Eskimo period into the late Pleistocene with C-14 dates as early as 11,000 B.P. at Healy Lake and approximately 10,000 B.P. at Onion Portage. As the mention of these two sites suggests, the thrust of much of the recent archaeology has been away from the coast and into the interior. Interest has increasingly focused on basically ecological problems such as subsistence patterns, settlement patterns, adaptation to changing climatic conditions, and the like — and these problems in turn have required the help of scientists of other disciplines, notably pleistocene geologists, palynologists, palaeontologists.

These generalizations anent the Alaskan scene are no doubt well known to even the casual follower of northern archaeology. Perhaps less well known, however, is a concomitant development which has focused, not on the late Pleistocene, some ten or more millennia ago, but on the last 150 years, and not on problems of adaptation to a changing natural environment, but rather on the changes in native culture resulting from the coming of the white man and the fur trade. This approach, often called ethnoarchaeology, utilizes the materials and methods of the archivist and the social historian as well as those of the archaeologist. In Alaska its best known practitioners have been Wen-

dell Oswalt and James VanStone, both of whom have excavated historic Eskimo sites in western Alaska as well as collaborated in the ethnoarchaeology of Crow Village, an historic Eskimo site on the lower Kuskokwim River. In the present study VanStone turns from the Eskimo to the Tanaina, a Northern Athapaskan group, and he is joined by Joan Townsend who has been conducting both ethnographic and archaeological research in the Lake Clark-Iliamna region for some years.

The village site of Kijik is located on the shore of Lake Clark inland from Cook Inlet. It seems to have been established early in the 1800's, perhaps in response to the growth of the fur trade following the establishment of Russian posts on the coast. Kijik was abandoned in the early 1900's when its remaining inhabitants moved to the native settlement of Nonalton. Church records indicate a peak population of about 100 in the 1880's. The site contained the remains of 19 structures, all of which were tested. Twelve of these were houses, all of log cabin construction. The remainder included both houses and a church. In spite of its lakeside location the natives seem to have depended on caribou rather than salmon for their subsistence. This came as more of a surprise to VanStone and Townsend than to this reviewer, who has long argued for the primacy of caribou in the Northern Athapaskan food quest. Remarkably few goods of native manufacture were excavated, and these were of a fairly obvious and persisting sort such as whetstones, hammer stones, bone awls, net sinkers, and skin scrapers. Although Kijik was never a truly aboriginal village in the sense of antedating white contact, this paucity of native goods stands in marked contrast to Eskimo villages of a similar period such as Tikchik and Crow Village. Although native artifacts are scarce, no other Alaskan site has produced such a large inventory of trade goods of Euro-American manufacture. This includes broken pottery and glassware, beads, nails, kettles, tools, knives, cartridge cases, and parts of firearms. The careful analysis of the time and place of manufacture of each of these items constitutes the major portion of the monograph. Such discussion is enlightening and impressive in its scholarship, although it is more the scholarship of a social historian than that of a cultural and social anthropologist. When the smoke clears away it appears that virtually all historically identifiable items date from the late nineteenth century, i.e. the American period. As far as the archaeological evidence is concerned we still know little about the earlier Russian trade.