Anderson sees Akmak, together with the later Kobuk complex of Onion Portage dated to 6500-6000 B.C., as forming the relatively localized American Paleo-Arctic tradition. The American Paleo-Arctic in turn is drawn from a "diffusion sphere" extending from Lake Baikal to Northwest Alaska that existed prior to the flooding of Beringia, at the very least 10,000 years ago. I should draw attention to the moderation with which the author tempers his extended comparisons and hypotheses.

Akmak, in the reviewer's estimation, belongs to a late terminal Pleistocene aspect of the early man stage in North America not directly related to the fluted point hunters or Llano horizon. Anderson does not explicitly tie Akmak into Paleo-Indian prehistory, but it is tempting to do so and one may wonder if there is not some relationship, possibly at a period prior to the Akmak occupation as may be exemplified by various fluted point collections from northern Alaska which unfortunately are largely from surface sites.

Within recent years archaeologists have argued convincingly for a complex model of early New World prehistory involving an extended time depth, multiple migrations from Asia, population shifts in North America, and the development of local diversity. Akmak occupies a pivotal position in the arctic as a document of the latest major wave in early man's occupation of the New World, while at the same time it may perhaps bear the imprint of an antecedent belonging to the Paleo-Indian fluted point horizon. Considering, however, the broad scale of generality involved in this remark there is nothing to prevent us from regarding Akmak, in more specific terms, also as a relatively localized development.

Donald W. Clark

THE EUROPEAN DISCOVERY OF AMERICA: THE NORTHERN VOYAGES, A.D. 500-1600. By Samuel Eliot Morison. Don Mills: Oxford University Press, 1971. 6¼ x 9¼ inches, 712 pages, illustrated. \$15.00.

This new book by a master historian and a long and well-tried authority on maritime history is certainly the prime modern work on North Atlantic discovery in any language. It is intended, and very well succeeds I think to be a single-volume comprehensive synthesis of all the scholarly investigations on the subject to date. It is the first attempt in

a long time to treat the European discovery of North America as a coherent historical unity, and to trace its development from the Irish initiatives in the "Dark Ages" to the first unsuccessful attempts at planting colonies. To complete the picture Morison promises another volume on the European discovery of the Caribbean and South America running from Columbus to Cavendish (1492-1593), and then a third and final volume on the discoveries which filled in the North American coastline in the areas of New England and Hudson Bay and which were contemporary with the successful founding of Virginia, New England, and New France in the first decades of the seventeenth century. Now at eighty-four, may God grant him the years to write them.

The bulk of the book, sixteen out of twenty chapters, deals in chronological sequence with the Era of Exploration and Discovery proper, from Cabot's voyages to Raleigh's Roanoke Colonies (1497-1590), prefaced by two information-rich chapters on the English and French maritime development as of about A.D. 1500. Besides his detailed recounting of the history of each of the sixteenth century voyages of discovery to North America, Morison's most valuable contribution in these chapters — based as they are on previously well-cultivated historical documentation and scholarship — is his ability to pinpoint reasonably accurately the places sighted, visited, and named by the explorers as a consequence of his personal survey of the North American coast by private plane from the Carolinas to Labrador. The book is definitely better for his numerous photographs of significant points along the coastline reproduced in black and white, as well as the reproductions of old and modern maps and of portraits of the great navigators, Lacking, however, is a chronology of the voyages which would have been useful for reference both while reading the book and afterwards. In the notes at the end of each chapter Morison discusses sources, bibliography, and continuing or controversial problems in such a lively manner as to make them as interesting and, for scholars at least, as important as the text itself.

One of these controversial problems is the matter of John Cabot's landfall in 1497. Morison places it at the northern tip of Newfoundland on the latitude of Ireland's Dursey Head (51° 33′ N.; p. 174), and believes Cabot then coursed the east coast of Newfoundland down to the Avalon peninsula — never once touching or sighting Cape Breton. Basing himself on the scant but firm statements of

John Day's letter and a sequence of plausible inferences regarding sailing and sailing ships of that period, I think he has drawn the most reasonable conclusion from the evidence at present available.

Controversial problems, of course, abound in the area of pre-Columbian voyages. Here the historian has to pick his way between tantalizing but questionable evidences and intriguing but unsubstantiated (some would say crack-pot) theories. The Ancient, Irish, Norse, and Medieval "discoveries" of America are treated respectively in the first four chapters of the book, and in this area Morison takes the hard-headed, nothing-but-the-solidfacts approach. He dismisses absolutely any discovery of the New World by the Ancients; allows St. Brendan his existence and navigation, but no further than Iceland and/or the Azores; admits the Norse discovery of Vinland, which however he believes to be no further south than Newfoundland; and utterly rejects the "fakery" of Madoc, the brothers Zeno and Henry Sinclair, Pining, Pothorst, Sclovus, and any prior but secret Portuguese discovery of North America.

Undoubtedly from the point of view of scientific historical scholarship, Morison is correct (as well as safe) in taking a very critical attitude in this area, but my own opinion is that he tends to go so far as to shut out a priori any possibility of Irish, Norse, or late Medieval contact with the Canadian Arctic or with more of the eastern coast of North America than just Newfoundland. For example, he claims (p. 38) that the Newport Tower has "incontrovertibly" been proven to be colonial, which is not the case — at least not incontrovertibly. He takes vinber (pp. 51-52) to be cranberries or currants but not grapes because grapes do not grow north of southern Nova Scotia. He denies (pp. 61-62) any Norse influence on Columbus or the Portuguese attempts at western discovery despite the Portugal-Bristol-Iceland stockfish trade in the fifteenth century and the fact that Columbus once sailed to the north of Iceland in a Portuguese ship. And the Vinland Map he suspects to be a fraud (pp. 58 and 69). In time he may well be proven right in any one or all of these controversial problems, but as of now none of these nor many other problematical questions are proven one way or the other, much less incontrovertibly.

Regarding the Arctic, only the chapters on Frobisher and John Davis deal with it, and there only in terms of elucidating the geography of the places visited and sighted by these navigators. The whole matter of pre-Columbian contact with the Canadian Arctic is virtually ignored except for some sarcastic strictures on some of the more well-known but questionable evidences. In all fairness, however, Morison did not set out to write a book on pre-Columbian discovery but rather on the solidly historical post-Columbian era of exploration, and it is here that the book has its incontrovertible merit.

George F. W. Young

FISKARNA I FARG. By KAI CURRY-LINDAHL. Stockholm: Almqvist & Wiksell, 1969. 43/4 x 71/4 inches, 248 pages.

The present book is the seventh edition of Mr. Curry-Lindahl's very popular guide to the different species found in Sweden. More than 200 species are described and of these, 185 are shown in colour. Not only species common to Swedish waters are reported, but also fishes which are seldom found off the Swedish coasts, being more or less exotic visitors from far away. Also newly introduced species such as lake trout, kokanee and hucho are portrayed.

In this new edition, the latest taxonomic, ecological and biological observations have been considered, and in its short form, the text is surprisingly full of information.

Each species is presented with its Swedish and Latin name. The text gives a description of the fish, its size and the distribution within the country, often also shown on a map. The ecology, spawning age, time and behaviour, number of eggs and incubation time as well as food and growth are also given as well as migrations, importance for fishery and known maximum weight in Sweden. The dialectal Swedish names are also given in the last part of the text, the whole of which is very clear and informative with many facts.

However, the illustrations are not of the same standard as the text, a risk always present when the pictures are coloured instead of colour photos. In some cases, they are too dull, in others, too bright. But even with these errors, the different species are easily recognized in the pictures.

The book has two indexes, one with Swedish and one with Latin names, and also a bibliography giving Swedish literature on fish and fisheries.

Even considering the errors in the illustrations, the book must be looked upon as a good and very useful handbook of Swedish fishes.

Hans H. Peterson