

The Soviet compilers, including an impressive array of naval and scientific personnel, suggest that investigation of the world's oceans together with space and nuclear research constitute the most important scientific endeavours of our age; the oceans' mineral and biological resources will eventually sustain much of the world's population. This atlas obviously demonstrates the importance of the Arctic Ocean to the USSR and allegedly draws upon extensive materials obtained by a variety of research programs. Although most of the maps are drawn at a very small scale (1:15 million, 1:30 million, or 1:45 million), their total effect is to demonstrate that the physical properties of the Arctic, particularly that portion investigated by the USSR, are well known in aggregate; the maps testify to the rapid increase in knowledge about the Arctic which has occurred since World War II.

Arctic Ocean is divided into seven sections. The first uses eight map sheets and 17 maps to identify "the most important" voyages and oceanographic expeditions made to the Arctic Ocean; it is a particularly useful summary of Russian and Soviet voyages to the Arctic. Section two is approximately the same size and portrays the ocean floor, particularly elements of relief and geomorphology. The third section is the largest of all; containing 63 map sheets, 209 maps and two diagrams, this section focuses on climate and emphasizes thermal, wind, circulation, and regional climatic patterns. The fourth section comprises 30 map sheets, 67 maps, and 27 diagrams pertaining to hydrology, particularly to physical properties of water and dynamics of ice. These maps are followed in section five by 11 map sheets, 33 maps, and nine diagrams devoted to hydrochemistry. Section six contains five map sheets and 20 maps pertaining to biogeography and the fauna and flora of the ocean. The final section with 11 sheets, 13 maps, and 12 diagrams provides reference materials on terrestrial magnetism, aurorae and astronomy. The atlas is accompanied by a loose two-sheet fold-out relief map of the world ocean floor at a scale of 1:25 million.

Arctic Ocean, primarily devoted to climate and hydrology, thus fulfills its basic purpose of serving mariners and students, presumably students of navigation and science, by describing the physical properties of ocean water and atmosphere. In keeping with the general sensitivity in the USSR to the release of detailed information on resources, the atlas avoids identification of those metallic and non-metallic minerals which have direct utilization for industrial processing. The atlas is also devoid of settlement data and related demographic and cultural information. It excludes descriptions of the volume of water entering the Arctic Ocean, a subject of great concern throughout the Northern Hemisphere in view of extensive proposals for diversion of northward-flowing streams into mid-latitude arid regions.

As a research tool, unfortunately, *Arctic Ocean* is inadequate. The editorial board's recognition of the oceans' importance to scientific inquiry is not matched in this atlas by the inclusion of appropriate references and bibliographical sources. Although the individuals responsible for each map sheet, and the major educational and research institutions supporting Soviet investigation of the Arctic, are identified, the user of this atlas cannot estimate either the reliability or the length of record of the data used to derive patterns. The reader cannot directly proceed to consult related supplementary sources such as larger-scale maps, scientific reports, or compendia of statistical information, in either Russian or English, because the sources used to compile the maps and diagrams are not identified. For the non-Soviet user lacking access to appropriate Russian institutions, *Arctic Ocean* lacks both authority and that essential property of scientific investigation, the possibility for independent verification of data and alternative interpretation. This criterion is especially acute if the atlas is to be used creatively and if the accuracy and limitations of its sources are intended to be evaluated. Thus, while the formal credits include truly impressive personnel whose work is both known and outstanding, the atlas misses the opportunity to support its impressive appearance with documentation which would enhance its utility to the reader.

The difference in price between the Soviet and Pergamon editions is not matched by a corresponding increase in the amount or utility of material provided. Furthermore, given the large amount of data available in the original, the Pergamon supplementary volume is niggardly in the material it offers for a price that is over fourteen times the Soviet original. This reader cannot understand why Pergamon did not justify its otherwise excessively high price by providing an operational guide to the Russian original, and why all the items contained in the original index were not reproduced in the Pergamon translation.

While the quality of Pergamon's limited translation by D. A. Brown generally is fluent and idiomatic, the English introduction occasionally is capricious. For example, some items beginning with the Cyrillic letter "E" have been transliterated as "Ye" (Yenisey) while others appear in English beginning with "E" (Ermak). Translation, however, while never easy, is also not without humour: the Russian original of "seashore bird colony" (p. 169) is translated in the Pergamon introduction as "poultry." Another small but serious flaw occurs in the Pergamon booklet where the table of contents under

"atmospheric circulation" states that map pages 84-101 show wind data for March; they actually show it on a series of two-page sets monthly commencing with March and ending with November.

Apart from the limitations in scientific documentation and utility of the English-language guidebook, *Arctic Ocean* is a beautiful and comfortable atlas. In keeping with most major Soviet atlases used by those of us who study that country's geography, *Arctic Ocean* has been carefully produced and the quality of colour reproduction is excellent. The great strength of *Arctic Ocean* is that, unlike any other atlas on the area, it contains a large number of important physical topics in one volume. This atlas thus represents a comprehensive source of aggregate information for an area of great ecological, climatological, hydrological, and political significance.

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LES BALEINIERS FRANÇAIS DU XIX^e SIÈCLE (1814-1868). By J. THIERRY DU PASQUIER. Grenoble: Terre et Mer (3 rue Charrel, 3800 Grenoble, France), 1982. 256 p. Price 380 francs.

Every schoolboy knows about the growth of the New England whale fishery, starting in coastal waters and spreading over the whaling grounds of the whole world. In the late Dr. Brian Roberts's *Chronological List of Antarctic Voyages* (1956, now being revised) there are some pages where only American ships appear, proof of the way in which they dominated the trade. It is true that the list was only as good as Roberts could then make it (though a marked improvement on its predecessor) and that more recent research has yielded a number of whaling voyages to the sub-Antarctic from British ports and the Cape of Good Hope; but it still remains that American whaling men showed the way and led for a century or more.

Not so well known is the part they played in establishing the South Seas trade in London and, to a limited extent, in Haverfordwest. Those Quaker masters Coffin, Rotch, Gardner, Macy, Hussey, and others, in anticipation of the war of independence, came to England and were to be found in British shipping lists for over half a century. So numerous were they that it is impossible to disentangle them, brothers and fathers and sons.

Even less was known about the French South Seas trade. In his introduction, J. Thierry Du Pasquier gives a brief account of the first French whaling trade, founded by New England masters who bore the same names as those who went to Britain. He shows how the first ships were sent out in 1784 and how the trade was cut short by the supremacy of the Royal Navy when the war between Britain and France began. A fuller account of this trade will be welcome.

The second French whaling trade, of 1816-1868, was founded at Le Havre in 1816 by Jeremiah Winslow, another Quaker New England master, who settled in France and became naturalized. Mr. Du Pasquier shows how by business ability, hard work, and strength of character he achieved a fortune of between two and four million francs, the reward of hard-headedness with the French government and his crews.

The emphasis in this book is on Jeremiah Winslow and his successor, Edouard Winslow, but Mr. Du Pasquier also deals with other French ports. In half a century nearly 600 ships took 12-13 000 whales. Towards the end of the period, when whales were becoming scarcer, they went as far as the Sea of Okhotsk, Bering Strait, and the Arctic Ocean. Regrettably the author does not know how far they went into the Arctic Ocean and what they caught there.

The relevance of this book is twofold. Whaling men sailed in the hope of making a profit. That depended not only on the size of the catch and the quality of the oil, but also on the market price at the time. Since all oils were to some extent in competition, the prices turned on the Greenland and Davis Straits catches, which have not yet been fully examined. Nor has the relation between the Arctic and South Seas trades been looked at closely, but the trade as a whole cannot be understood without a knowledge of all three trades.

The second point is that this book is a lesson on how to deal with such a subject where the facts are hard to find and fragmentary. The bibliography shows the length to which the author has gone in gathering printed and manuscript material in France and the United States — sadly there is very little on the British whaling trade — as well as using his own collection. The appendices, with biographies of masters and a table of all the voyages, shows the years that the author must have spent in extracting and sorting a multitude of facts.

The price will put the book beyond the reach of some readers, but it should certainly be purchased by libraries. The price is partly the result of the lavish illustration, getting on for 150 pictures, black and white and in colour, maps, and diagrams. The book is strikingly free from errors, but the volume of material is such that a list of illustrations and an index would be useful.

There may perhaps be room one day for a further account of the whale fishery from other French ports at other times, so far as sources exist, but this account of the trade from Le Havre could not be bettered.

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TRADITSIONNYE KUL'TURY SEVERNOY SIBIRI I SEVERNOY AMERIKI (TRADITIONAL CULTURES OF NORTH SIBERIA AND NORTH AMERICA). Edited by V.P. ALEKSEYEV, S.A. ARUTYUNOV, I.S. GURVICH, I.I. KRUPNIK, and L.P. KUZ'MINA. Moscow: Izdatel'stvo "Nauka", 1981. 286 p. Price 3 rubles (North American price unknown). In Russian.

NA STYKE CHUKOTKI I ALYASKI (CONTACTS BETWEEN THE CHUKCHI PENINSULA AND ALASKA). Edited by V.P. ALEKSEYEV, T.I. ALEKSEYEVA, S.A. ARUTYUNOV, and I.S. GURVICH. Moscow: Izdatel'stvo "Nauka", 1983. 230 p. Price 2 rubles 80 kopecks (North American price unknown). In Russian.

A significant accomplishment of the 1970s in anthropology was the establishment of mutual scientific communications between certain Soviet scholars and certain of their American colleagues. As a consequence of scientific exchanges, symposia, and personal contacts, both sides have had opportunities to extend the geographical and theoretical limits of study. Familiarity with the analytical methods and theoretical orientations of both countries is strongly influencing the process of mutual understanding of cultural development.

The monograph *Traditional Cultures of North Siberia and North America* is a testimonial to the possibilities of Soviet-American scientific cooperation. It addresses questions of ancient contacts between North Asian and North American aboriginal problems. The North Pacific ethnic traditions, those of Beringia in particular, have for decades aroused the interest of scholars. During the period 1900-1902, the New York Museum of Natural History organized a North Pacific expedition, on which F. Boas, B.G. Bogoraz, and V.I. Jochelson were participants. As a result of this expedition, significant scientific information about the inhabitants of the North Pacific area was collected. Since that time new archaeological, physical anthropological, linguistic, and ethnographic data have been discovered. The new discoveries enabled anthropologists to gain a more profound understanding and to ask various questions regarding the history, modes of life, ethnic origins, and socioeconomic strata of the aboriginal populations of the Bering Sea region. Comparative studies in this research area began relatively recently as a result of a Soviet-American symposium entitled "The Peopling of the New World", which was held in October 1977 in Washington, D.C., and a reciprocal symposium, "Northern Cultures", which took place in Moscow, Leningrad, and Yakutsk in May-June 1979.

Traditional Cultures of North Siberia and North America consists of papers which were presented at these two symposia. Briefly, the contents of the monograph are as follows: Aleuts of Commander Islands (Somatological Observations) (V.P. Alekseyev); Aleut Mummies: Their Significance for Longevity and Culture (W. Laughlin); Socio-Demographic Correlates of House Structures in Three Beringian Populations: An Exploratory Study (E.S. Burch); Changing Prehistoric Eskimo Subsistence Patterns: A Working Paper (D. Anderson); North American and Siberian Pacific Coast Rock Drawings (E.A. Okladnikova); Early Settlements and Demographic History of Asian Eskimos of Southeastern Chukotka (including St. Lawrence Island) (I.I. Krupnik); Some Parallels in the Traditional Aboriginal Cultures of North Asia and North America (I.S. Gurchich); On Certain Parallels in the Culture of the Samoyeds and Eskimos Concerning Ancient Ethnic Relationships Between Asia and America (L.A. Faynberg); On the Bear Cult among the Indians of North America (J.P. Averkieva); Alaska Native Languages: Past, Present and Future (M.E. Kraus); The Paleoasiatic Raven Epos and Problems of Folklore Relations between Northeast Asia and Northwestern America (E.M. Meletinsky); Eskimo Folklore (L.P. Kuz'mina); Ethnohistorical Research in Alaska:

A Review (J. VanStone); The Whale in the Folklore and Mythology of Asian Eskimos (M.A. Chlenov); The Russian Legacy in the Destinies of Alaskan Native Americans (S.G. Fedorova); Joint Publication of Sources on the History and Ethnography of Alaska, California and Hawaiian Islands (D.D. Tumarkin); and History of American Collections in the Museum of Archaeology and Ethnography in Leningrad (R.V. Kinzhilov).

Despite differences of opinion, the research topics of the monograph cover five study areas: (1) physical anthropology of the Aleuts (Alekseyev and Laughlin); (2) archaeology of the Bering Strait (Anderson and Krupnik); (3) ethnography of the Bering Sea peoples (Burch, Okladnikova, Gurchich, Faynberg, Averkieva); (4) Alaskan native languages (Kraus) and Bering Strait folklore (Chlenov, Meletinsky, Kuz'mina); and (5) Alaskan ethnohistory (Fedorova, Tumarkin, VanStone) and a relevant museum collection (Kinzhilov).

In 1983 a shorter version (by three papers) of this monograph was translated and edited by H.N. Michael and J.W. VanStone. That monograph, entitled *Cultures of the Bering Sea Region: Papers From an International Symposium*, was published by the International Research and Exchanges Board (IREX). As the editors point out, attempts at Soviet-American cooperation are sometimes complicated by methodological and procedural problems; the current research on northeastern Asia and northwestern North America demonstrates the mutual value of disseminating the results of parallel and comparative research strategy carried out by Soviet and North American scholars.

The second monograph, *Contacts Between the Chukchi Peninsula and Alaska*, constitutes a logical and topical continuation of the monograph reviewed above. It is devoted to a comparative study of Beringian traditions, of the origins, modes of life, and socioeconomic development of the Beringian peoples. Since comparative research requires multidisciplinary studies, the authors of this monograph have analyzed information regarding past developmental processes of arctic and subarctic populations by using the recent data of archaeology, linguistics, ethnography, and physical anthropology. The monograph comprises seven articles which may be arbitrarily classified into four subheadings: (1) history of studies of Beringian aboriginal populations; (2) ethnographic studies; (3) physical anthropological studies; and (4) archaeological investigations.

The first article, "Some Results of the Historico-Ethnological and Physical Anthropological Studies in the Chukchi Peninsula" (T.I. Alekseyeva *et al.*), is a concise history of the study of the aboriginal population. To Soviet social scientists, "history" means studies of the processes of human development, designed to reveal the circumstances which underlie or even cause these processes. Traditionally, most Soviet social scientists review the history of the particular discipline or topic before presenting an analysis of new data (Klein, 1977; Bulkin *et al.*, 1981). The information in this article will give readers a broad overview of the discoveries in northeast Asia, in chronological, topical, and geographical order.

The second paper, "Early Eskimo Settlements of the Southeastern Chukchi Peninsula" (I.I. Krupnik), focuses on original research, but is somewhat vague. Krupnik analyses 42 Eskimo settlements of the southeastern Chukchi Peninsula from the late eighteenth to the beginning of the twentieth century, i.e. the settlements which are historically known. Krupnik's observations indicate that some settlements were occupied almost continuously. Furthermore, during periods of environmental stress, the Asiatic Eskimos of this study area concentrated in certain ecologically rich regions, usually characterized by abundant marine resources. When environmental conditions stabilized, they would return to their previous locations, or explore new territories. Krupnik's conclusion regarding the Eskimos' adaptive strategies should be examined again, using more specific ethnographic and archaeological data. I question whether any rational hunter, for whom hunting is a way of life and the primary means of survival, would leave an ecologically rich and profitable geographical location in order to explore new and unknown territories.

In his article "The Ethnogenesis Problems of the Chukchi and Koryak Reindeer Herding Groups on the Basis of Ethnographic Data", I.S. Gurchich uses ethnographic data to address the question of the origin of the Paleoasiatics. The most valuable material for this investigation came from Krashennikov's eighteenth-century data on the culture of the Itelmens (Kamchadals), and also from data on the Chukchi and Koryak cultures gathered at the end of the nineteenth and beginning of the twentieth centuries by Bogoraz and Jochelson. The search for ethnogenetic relationships is central to Soviet archaeology and ethnography, which are essential for determining cultural areas and their temporal and spatial relationships. In short, the term "ethnogenesis" simply refers to historical continuity or transformation of one cultural tradition into another, and it attempts to discover the traits which are found in certain ethnic traditions and the historical origins of these traits (Dolgikh, 1964). In this paper Gurchich has demonstrated that the Chukchi and Koryak reindeer-herding groups constitute a homogeneous ethnolinguistic population with