

Alaska and the Mammoth Steppe Biome" (as it deals with Eurasia) provides a wide-ranging and somewhat eclectic review of large mammoth/mammal hunting sites, and the archaeology and paleoecology of Western Europe and Asia including China. Müller-Beck concludes that man was well adapted by 40 000 years ago to the steppe-tundra and could have crossed the Land Bridge by that time.

Morlan and Cinq-Mars review the evidence for human occupation in the late Pleistocene of Alaska and the Yukon, including the controversial Old Crow bone technology, and the results of excavation at Blue Fish Caves and later terminal Pleistocene sites. They conclude that man was probably present more than 50 000 years ago. (Since then Morlan has revised his position at least twice.) Of particular importance are the Blue Fish Caves excavations, where both bone and stone artifacts occur in good stratigraphic context, which on the basis of Cinq-Mars's 1983 site studies date to ca. 25 000 years ago. Blue Fish promises to become one of the key sites in unravelling the argument about humans vs carnivores as agents of bone modification centering around the bones found at Old Crow by the Archaeological Survey of Canada and W.N. Irving's group from the University of Toronto. Whereas Morlan and Cinq-Mars devote considerable space to the work of Morlan *et al.* from the Archaeological Survey, they barely mention Irving *et al.*'s interpretations of the geology, archaeology, and chronology. Indeed, Irving's most recent studies, though referenced in the volume, are not cited or discussed in Morlan and Cinq-Mars's paper, a most unfortunate academic "oversight" which the editors should have corrected, as Irving's group has a reasonably good argument suggesting that occupation at Old Crow dates at least to Late Illinoian times, ca. 150 000 years ago.

While the archaeological evidence points to an Eastern Beringian human occupation by 30 000 years ago at the latest, papers by C. Vance Haynes and Paul S. Martin present the extreme conservative view of most American archaeologists, reaffirming their "gut" views of Pleistocene overkill and the first occupation of the Western Hemisphere (ca. 12 000 B.P.). In their view, man, entering the New World out of Asia around 14 000-12 000 years ago, was largely if not solely responsible for the extinction of the Pleistocene megafauna both in Beringia and in the continental interior to the south, as the "Ice-Free Corridor" opened up at the end of the last glaciation along the eastern slopes of the Rocky Mountains. This corridor, however, was most probably present throughout Late Wisconsinan or Duvanny Yar time. These authors dismiss with no argument, or don't mention, the Beringian archaeological evidence reviewed by Morlan and Cinq-Mars (e.g., Blue Fish Caves) and that from south of Beringia, which indicate a pre-17 000 B.P. entry for man. Haynes's and Martin's papers, particularly Martin's, represent a restatement of previous, somewhat dated, views which shed no new light, and simply sidestep the issues and evidence of the last 10 years on the age of Early Man in the Americas.

The concluding section, "The Paleoecology of Beringia", is a major synthesis by the editors. Highly readable and based on a most reasonable interpretation of the data, it is the paper one should read first or immediately after Hopkins's initial statement. Hopkins, Mathews, Schweger and Young have brought together the various lines of evidence to develop a Beringian scenario and man's place in it for the last 40 000 years. They present a perceptive view of the human and natural history of this unique Pleistocene ecosystem which will no doubt change in future years as research continues.

In sum, this volume will be the basis on which the explanatory theory and models develop over the next decade. It should be on every Quaternary scientist's shelf, not only as a basic reference but also as an example of the value of an interdisciplinary approach in increasing our knowledge and understanding of this unique ecosystem as well as other environments of the Quaternary period.

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POZDNEPLEYSTOTSENOVYE I RANNEGOLOTSENOVYE KUL'TURNYE SVYAZI AZII I AMERIKI (LATE PLEISTOCENE AND EARLY HOLOCENE CULTURAL CONTACTS OF ASIA AND AMERICA). Edited by R.S. VASIL'YEVSKY. Novosibirsk: Izdatel'stvo "Nauka", 1983. 151 p. Price 2 rubles 30 kopecks (North American price unknown). In Russian.

The Pacific was one of the most significant areas on earth for the origin of Early Man and the development of humankind. Scholars from nearly 50 countries, in the 60 years since the foundation of the Pacific Science Association in the 1920s, often meet in congresses of Pacific studies for the exchange of scientific information.

The XIX Congress, entitled "Environment of the Pacific Ocean for the Development of Humankind", was held in 1979 in Khabarovsk, USSR. Eighteen papers, included in the monograph under review, were presented in one of the congress's symposia, "Late Pleistocene and Early Holocene Cultural Contacts of North Asia and America". The monograph is divided into two relevant sections: Ancient Cultural Contacts, and Chronology and Periodization. The papers, written by specialists from the Soviet Union, United States, Canada, and Japan, include: New Information on the Mongolian Paleolithic (A.P. Okladnikov); Cultural Contacts between Northeastern Asia and America on the Basis of the Late Pleistocene and Early Holocene Sites of the Kamchatka, Chukotka and the upper Kolyma River (N.N. Dikov); Levallois Traditions of North Asia and North America (R.S. Vasil'yevsky); Paleolithic Population of Southern Siberia and Ancient Cultures of North America (G.I. Medvedev); On the Peopling of Sakhalin Island (V.A. Golubev); Evaluation of the Late Pleistocene and Early Holocene Archaeology of Coastal Alaska, the Bering Sea and Asia (R.E. Ackerman); Late Pleistocene Traditions of Northeast Asia and Northwest America (A.L. Bryan); Early Cultures of Northern Northwest America (R.L. Carlson); Sinodontia and Sundadontia: Origin, Microevolution and Distribution of the Mongoloids in the Pacific, Siberia and America on the Basis of Odontological Data (C.G. Turner); Contacts of Northern Japan with American Preceramic Traditions During the Holocene (V. Herli, P. Blid, and M. Esidzaki); Cult of Birds in California (E.A. Okladnikova); Small Tools from the Lower Horizon of the Hosino Site in Japan (T. Seridzava); Early Sites of the Middle Coast of British Columbia (F.M. Hobler); The Placement of the Yubileyny Site in the Stone Age of Yakutia (V.A. Kashin); Final Paleolithic of Trans-Baykal (M.V. Konstantinov); The Neolithic Site of the Chertovy Vorota Cave (V.A. Tarnikov); Archaeological Investigations in the Coast of the Western Tatar Peninsula (V.I. D'yakov and O.V. D'yakova); and Excavations of the Middle Age Mounds in the In River (V.E. Medvedev).

Although each of these articles is significant for the study of Early Man in the northern Pacific, I emphasize in this review those papers which deal directly with comparative studies of the two continents and some articles written by certain Soviet archaeologists which are not readily accessible to readers in the West.

In order to understand the problems of the peopling of North America it is necessary to familiarize oneself with the origins of Early Man in Siberia. Okladnikov's and Vasil'yevsky's articles address this topic in concise form. Russian and Soviet scholars have a long-established tradition of the study of Early Man. In an attempt to establish the ethnogenetic origins of past human cultures, the questions usually asked have been directed toward the investigation of the migration of Early Man from the Old to the New World, and toward a definition of the geographical dimensions of archaeological cultures. The settlement of Siberia by Early Man was a lengthy and complex process originating in various regions of Asia and Europe, where human cultures had already long existed. Unlike the studies concerning Soviet Central Asia, southeastern Asia, and eastern Europe, no indisputable evidence has as yet been found to confirm the habitation of Siberia by man of the Lower Paleolithic period. The earliest Upper Paleolithic settlements of Siberia (except Ulalinka in Altay and the Kumara sites in the middle Amur) belong to the Kargin Interstadial or Sartan Glacial period (Tseytlin, 1979).

The spread of Early Man into new areas with severe winter climates also required a significant period of time for adaptation to the new conditions. The settlement of the expanses of Siberia, rich in natural resources but with difficult climatic conditions, was directly linked to a host of ecological and demographic changes occurring in areas already inhabited by man, from which were established several routes for migration to Siberia.

The first route originated in Soviet Central Asia (Kazakhstan, Uzbekistan, Turkmenia). In the latest Paleolithic settlements of the Altay and the Yenisey River, one finds Levallois cores and long blades similar to those found on the Kara-Kum desert on the Syr-Dar'ya River, near the city of Leninabad, and in the Khadzhikeynsky Cave near the city of Tashkent (Anisytukin and Astakhov, 1970). The hypothesis first suggested by Mergart, Savitsky, and Sal'moni (Kholyushkin, 1981) was expanded later by Okladnikov. In a number of his publications, Okladnikov defines a "Siberian-Mongolian Upper Paleolithic

region", correlating the Upper Siberian Paleolithic inventory of the Mousterian type with the Levallois-Mousterian traditions of neighboring Middle Asia (Soviet Central Asia, Mongolia, and northern China).

A route to northern Asia was also opened from the south, out of the Mongolian steppes. To the south, in eastern and southeastern Asia, was located the home of *Homo erectus*. In several Paleolithic sites in Siberia (Ulalinka, Makarovo, Osinovka) some pebble-choppers were found, perhaps indicating a connection between these Paleolithic settlements and the more ancient southern regions of Asia (Okladnikov and Pospelova, 1982).

The third route of Early Man into Siberia, from the Trans-Ural region and the Russian Plain, likewise cannot be excluded. The supporters of this concept were the pioneers of Russian archaeology, who appear to have been strongly influenced by the early evolutionist school; they include Savenkov, Petri, Gorodtsov, Efimenko, and Sosnovsky. Their ideas are supported by the magnificent discoveries in the Paleolithic sites of Mal'ta and Buret' in Cis-Baykal.

It thus follows that the settlement of Siberia by Paleolithic man proceeded not from one center and not in one direction, but from at least three centers and three directions: Soviet Central Asia, central and southeastern Asia, and eastern Europe. Each of these areas, as the origin of settlement movements, has had supporters among archaeologists who have endeavored to produce more convincing evidence concerning the settlement of Siberia by Early Man.

According to Okladnikov's and Vasil'yevsky's articles, the pebble-choppers and especially Levallois techniques are evident for the earliest Paleolithic sites of Siberia, Sakhalin Island, Japan, and North America. These earliest Siberian sites were radiocarbon-dated to 45 000-30 000 B.P. The Levallois technique was further developed through the Late Pleistocene and Early Holocene traditions of the North Pacific. Some elements of the Levallois technique were recognized in the lithic assemblages of southwestern Alaska by Ackerman, Carlson, and Hobler. For example, Ackerman points out that microcore and microblade technology as a late variation of Levallois tradition first came to North America from Asia about 12 000 years ago, and the differences between the microblade industries of the two continents are a result of cultural adaptation to a specific environment.

In his article, Dikov also attempts to correlate North Asian and American Late Pleistocene-Early Holocene archaeology by using the data from Kamchatka, Chukotka, and the upper Kolyma River. Dikov finds that the lithic assemblages from the Ushki Lake sites, specifically the technological-typological similarity of some stemmed projectile points of Asia, blade points of northwest America, and Denali and Akmak assemblages of Alaska, have a common origin. While Dikov's hypothesis is provocative, his archaeological data are limited to only a few poorly defined and dated archaeological sites in northern Asia. These limitations should be considered critical ones for the comparative analyses of archaeological assemblages. To my knowledge, the lithic assemblages of the Ushki Lake sites and ecological settings have some common traits with the Early Holocene southern Alaskan traditions, rather than with the central (Denali) and northwestern (Akmak) Alaskan traditions. Archaeologically and ecologically the Denali and Akmak are more similar to the Dyuktay complex of the middle Aldan Basin, defined by Mochanov. Furthermore, many American anthropologists, particularly Bryan in his paper, point out the difficulties in observing the technological origin of Paleoindian traditions in North Asia and Alaska. Based on the faunal remains from the Old Crow site of the northern Yukon River, he dates the appearance of Early Man in North America to 25 000-40 000 years ago.

In sum, this monograph, as a joint work of specialists from USSR, USA, Canada, and Japan, demonstrates the necessity of comparative analyses and cooperative research for the study of North Pacific prehistory, since in the past it was a homogenous cultural area where the development of Early Man took place. One important aspect of Soviet archaeological methodology must be mentioned, the traditional artifactual and economic orientation. While ecological principles are currently very popular for the explanation of culture change in the Soviet Union (Dolukhanov, 1978), there has hardly been any research undertaken by Siberian archaeologists which has conceptually and quantitatively utilized ecological data for explanation of human behavior. But it would be worthwhile to try this.

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CANADA'S NORTH — THE REFERENCE MANUAL. Indian and Northern Affairs Canada. Ottawa: Minister of Supply and Services, 1983. ix + 177 p., 48 tables, 20 figs. Looseleaf in ring binder. Can \$39.00.

This ambitious work presents an extremely broad range of basic information on Canada north of 60°. Its detail, wealth of tables and figures, careful attention to regional variations across the North, and the amendments which will be issued periodically to update it will make the *Manual* a valuable reference work for general readers and for specialists seeking basic factual information outside their areas of expertise. However, specialists will not find this volume very helpful in their own research because shallowness is the inevitable price of the *Manual's* breadth. Every specialist will find a particularly galling omission; for a political scientist, the absence of public accounts is most unfortunate. To their credit, the anonymous authors do acknowledge the limitations of space and attempt to rectify the resulting problems by closing most of the chapters with bibliographies. These ought to be expanded to include more non-governmental publications, but they do at least indicate some supplementary sources of information.

While the factual presentation is generally laudable given the constraints of available space, as soon as the *Manual* moves away from the strictly factual, the perspective of its analysis becomes ambiguous and its credibility suffers. What is never clear are the true proportions of disinterested analysis and "official line" in the *Manual*. It is hard to avoid the feeling that the text is designed to present a vision of the North which reflects most favourably on DIAND or at least which pays more respect to DIAND's policy needs than to the reader's need for insight.

The bias takes several forms. The first is to paint a generally rosier picture of the North than would most observers. The *Manual* does not tell the reader that the Yukon economy is on its knees, that while the text was being written not a single mine was operating in the Territory nor that the problems of the White Pass and Yukon Railway have become so severe as to lead to the suspension of its operations. Similarly, the reader is not troubled by information on the severe market difficulties facing the fur industry or on the disappointing history of native employment in the mining and oil and gas sectors of the economy. Northern social problems are acknowledged, but only in a brief and partial fashion.

A second, equally tendentious, pattern is the *Manual's* presentation of the policies of the Government of Canada in the most favourable light, while negative aspects of these policies receive little or no attention. For example, the discussion of Ottawa's policy regarding native claims presents it as a most benign position, downplays Ottawa's disdain prior to the 1973 Calder court case, and ignores completely the great controversy surrounding Ottawa's insistence on extinguishment clauses in the settlements it negotiates. In contrast, criticism of DIAND policy is conspicuously absent; it is noteworthy that the excellent, moderate, and constructive, though often critical, publications of the Canadian Arctic Resources Committee find their way into the chapter bibliographies only once. That such a staggering omission can only be attributed to politics casts doubt on the objectivity of the *Manual*, hence on its reliability as a reference work except regarding the most elementary factual matters.

The confusion as to whether the *Manual* should be read as one would read the annual report of a governmental department or an official statement of policy, or should be treated as an independent and nonpartisan reference, produces a third problem. This is that any judgment that it offers which goes beyond existing officially-established policy may be interpreted as a statement of policy or at least as a precursor of policy. Particularly regarding questions involving stakes which are both very high and dependent on future governmental decisions, prudence compels the *Manual* to avoid offering judgments or even background information. Because of the risk involved, the chapter on northern hydrocarbon transportation proposals is silent about the respective prospects of the projects it outlines and even about the considerations which define these prospects. In the case of the Alaska Highway Gas Pipeline, the *Manual* reports neither the favourable information that the project is authorized by the *Northern Pipeline Act* nor the unfavourable financing prospects facing the project. Similarly, the marketing problems facing the Arctic Pilot Project are not even hinted at. Particularly as no bibliography is provided for