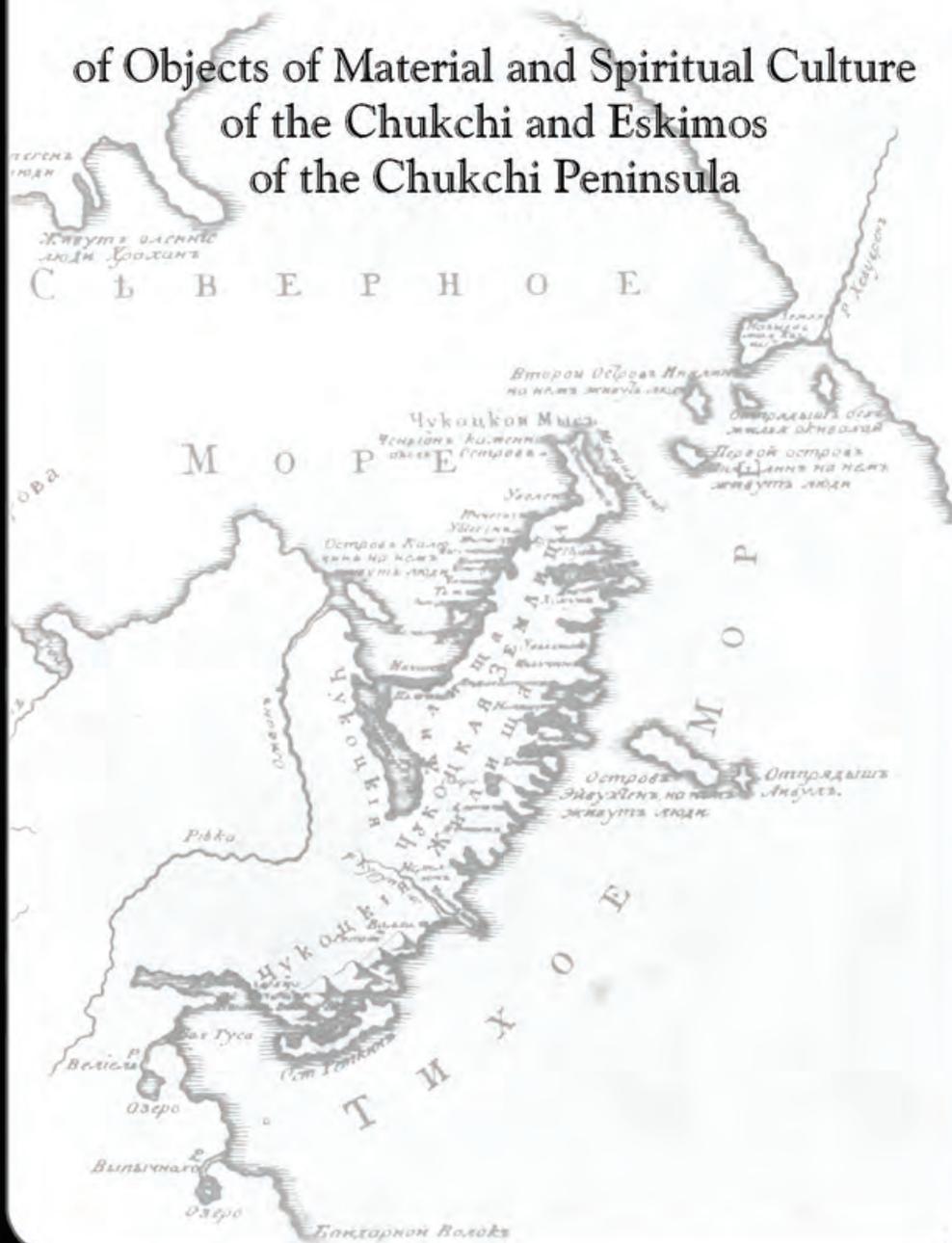


Provideniya Regional Museum

# Catalog

of Objects of Material and Spiritual Culture  
of the Chukchi and Eskimos  
of the Chukchi Peninsula



# Catalog

## **of Objects of Material and Spiritual Culture of the Chukchi and Eskimos of the Chukchi Peninsula in the Provideniya Museum Collections**

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Senior Science Researcher I. A. Zagrebin  
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Junior Science Researcher E. V. Tagrina  
Photographer V. V. Zhuravkov

Translated by Richard L. Bland



**Department of Culture and Art  
Chukotka Autonomous Region  
Provideniya Regional Museum**

# **Catalog**

**of Objects of Material and Spiritual Culture of the  
Chukchi and Eskimos of the Chukchi Peninsula  
in the Provideniya Museum Collections**

Prepared for  
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and  
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## SHARED BERINGIAN HERITAGE PROGRAM

Asia and North America were once joined by a massive “land bridge” in a region now popularly called “Beringia.” In order to promote the conservation of the unique natural history and cultural heritage of this region, the governments of the United States and Russia have proposed the establishment of an international park agreement between the two countries. The Shared Beringian Heritage Program of the National Park Service recognizes and celebrates the contemporary and historic exchange of biological resources and cultural heritage in this region. The program seeks local resident and international participation in the preservation and understanding of natural resources and protected lands and works to sustain the cultural vitality of Native peoples in the region. To these ends, the Beringia Program promotes the free communication and active cooperation between the people and governments of the United States and Russia concerning the Bering Straits region.



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April 2002

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*R.L.B.*

Museum of Natural History  
University of Oregon  
Eugene, Oregon  
03-28-01

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## Preface

*The Provideniya District as part of the Chukotka Autonomous Region (A. R.), the concept of the North Slope Borough, and the National Park Service—a Joint Project.*

The Provideniya District was formed in 1957 within the Chukotka A. R. Together with seven other districts, Provideniya is an administrative unit subject to the Chukotka A. R. of the Russian Federation. The area occupied by the District is 26,800 square kilometers [about 16,653 square miles]. The local center of population is the city of Provideniya with about 3,000 people. In the district there are a total of about 5,500 people. There are six population centers, five of which are traditional communities. The Provideniya District is located in the extreme northeast of Russia within the boundaries of the Chukchi Peninsula and is washed by the Bering and Chukchi Seas.

With the organization of observation of sea mammal migration on the shores of the Chukchi Peninsula by the “Naukan” cooperative, which is based in Lavrentiya, the Provideniya Museum also began to work on a Joint Agreement with the North Slope Borough, Alaska, in 1992. The North Slope Borough is an administrative subdivision of the state of Alaska, similar to the administrative regions (counties) in the lower forty-eight states. The North Slope carries out the management of eight population centers in the northern part of Alaska. The Joint Agreement took on new development in 1997 after the signing of an agreement between the production “Naukan” cooperative, the “Yupik” Eskimo community, the Provideniya Museum, and the National Park Service jointly with the North Slope Borough. The National Park Service is a federal organization of the USA with the central office for Alaska and Hawaii in Anchorage, Alaska.



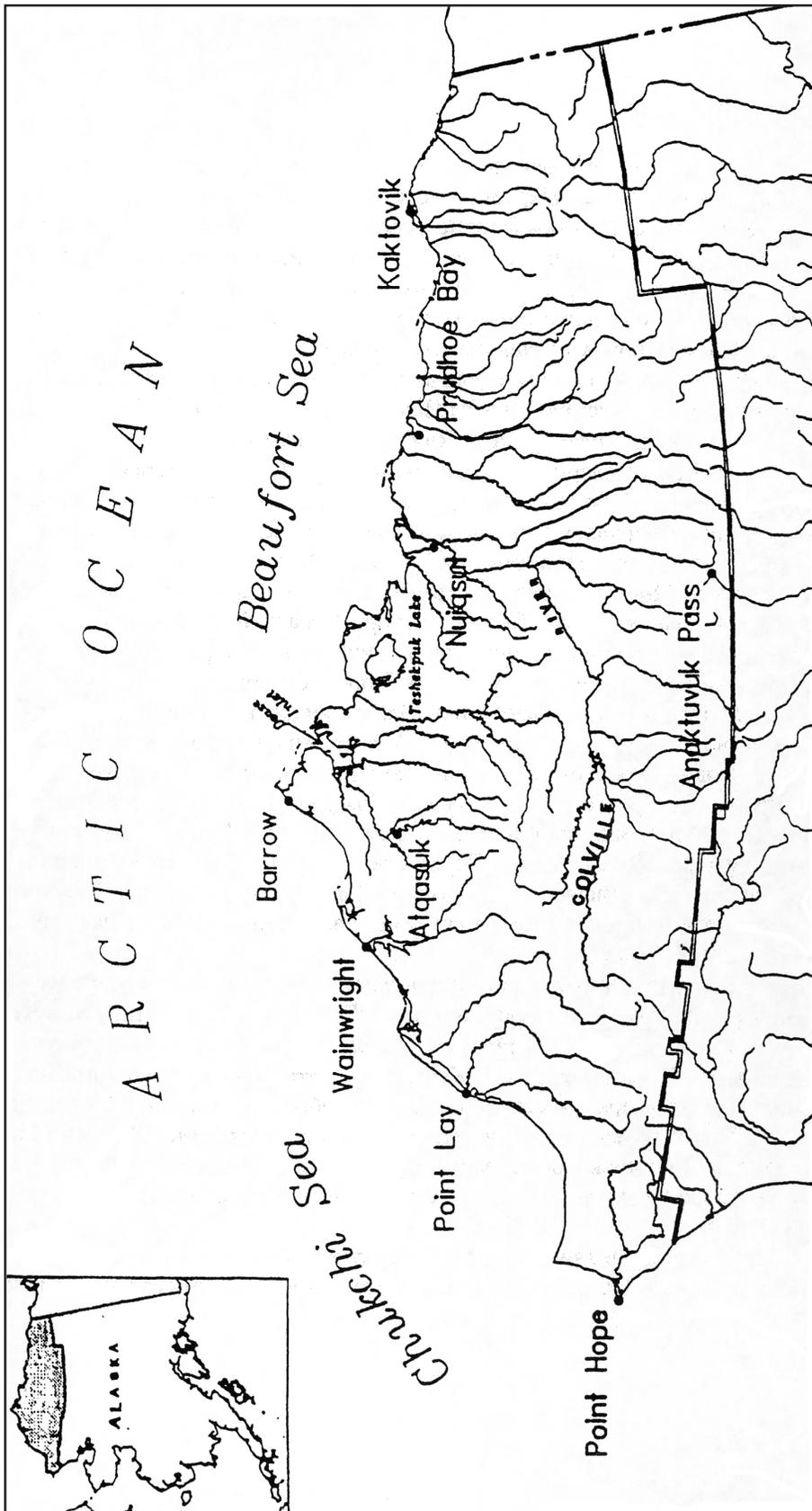


Figure 2. Map of northern Alaska, North Slope Borough. The North Slope is an administrative subdivision of the state of Alaska, similar to the administrative country in the lower 48 states.

The North Slope carries out the management of eight population points in the northern part of Alaska.

## Acknowledgments

The Provideniya Regional Museum expresses immense gratitude to the National Park Service in Alaska and the administration of the North Slope Borough of the state of Alaska for the possibility of creating and financing a Joint Agreement, out of which the creation of this catalog of items of the material and spiritual culture of the Native inhabitants of the Chukchi Peninsula became possible. The museum personnel are grateful for the possibility of collaboration, within the framework of the Joint Agreement, between representatives of Chukotka and Alaska. We express special gratitude to Robert D. Barbee, former director of the Alaska division of the National Park Service; Bob Gerhard and Peter Richter, director and manager of the “Beringian Heritage” program; the mayor of the North Slope Borough, Benjamin Nageak; the former mayor of the North Slope, George Ahmoagak; the director of the Department of Wildlife Management, Charlie Brower; the former director of the department, Warren Matumeak; as well as the leading scientific researcher of the Department of Wildlife Management of the North Slope Borough, Dr. Thomas F. Albert. Dr. Albert was and remains the chief initiator, planner, and director of all the joint projects in which the Provideniya Museum participates.

We are also very grateful to John Tichotsky; Katerina Solovjova Wessels; Mary Core; Sergey Mikhailovich Chulaki; Nataliya Serafimovna Strelkova; and the collaborators of the Department of Management of Biological Resources of the North Slope—Craig George, Robert Suydam, Harry Brower, Jr., Dolores Vinas, Liza Dela Rosa, and Tomas Perry Olemaun. We are also very grateful to Dr. David W. Norton, scholar at the Arctic Science Consortium in Barrow, for substantial technical help.

The employees of the museum are very grateful to M. A. Zelensky, president of the production cooperative “Naukan”; L. I. Aynana, president of the Chukotka Eskimo Society “Yupik”; I. V. Tanko; and V. Eremin.

Gratitude to T. Gaymisin and Umrina, residents of Provideniya; P. Yatylin, hunter from the village of Novoe Chaplino; and T. Gematagin and L. Kutylin, hunters from the village of Yanrakynnot is also felt for their consultations and practical help in collecting specimens and in the creation of the catalog.

We are grateful to all the residents of Chukotka and Alaska, who contributed to the matters of preservation, and the broad display of the cultural heritage of the Native residents of the Chukchi Peninsula. Without their active participation completion of this work would not have been possible.

The financing of this Joint Agreement was carried out by the National Park Service in Alaska and the government of the North Slope Borough of the state of Alaska under financial document No. PO#19983368.

## 1. Introduction

Organized in 1985, the Provideniya Regional Museum was initially a community museum, but in 1989 it became a government museum. For the first time, exhibits and materials on the history and geography of the region were collected by true patriots of their native land: Yu. M. Babaev, L. I. Aynana, T. N. Borodina, L. A. Tamsen, P. V. Cherepanov, and G. A. Tegret.

More than 100 paintings and graphic works, provided by the Russian Union of Artists on the initiative of the Moscow artist G. A. Sotskov, and more than 300 exhibits of material culture of the Chukchi and Eskimos, including the history of the discovery and opening up of the Chukchi Peninsula, served as the beginning point for developing the collections of the Provideniya Municipal Regional Museum.

The first visitors to the museum were admitted on 8 May 1985 in the old building with a total area of 100 sq. m. In the initial stage, many things for the establishment and organization of museum affairs were carried out by the first director, A. G. Sokolovskaya.

At present the museum is housed in a new two-story, reconstructed building, built from 1946 to 1948, with a total area of 500 sq. m. The second floor is set aside for displays and exhibition halls. On the first floor are the administrative offices, repository, photo lab, and workshop. The primary goals and aims in the creation and daily activity of the museum were, and remain:

1. Finding and gathering items connected with the history, nature, and culture of the Chukchi Peninsula.
2. Preserving objects in the museum collection.
3. Studying and scientific elaboration.
4. Dispersing knowledge about the nature, history, and culture of the local region.

To date, the museum collection includes about 14,000 items. The primary portion comprises photo prints and slides on the history of the region, objects of archaeology and ethnology, and documents, as well as works of traditional applied art, paintings, and drawings.

The entire collection of the museum is divided in five primary repositories: material, representational, written, natural, and photo-material. The items in the museum are the result of gifts from private individuals and organizations; the collections of museum members gathered on scientific trips and expeditions; and gifts from other museums, libraries, and government archives, as well as the purchases of museum quality items from individuals and businesses.

Starting with the peculiarities of geographic location, historical development, and the rich cultural and natural heritage of the region, the museum has three basic directions in its work:

1. The study of historic and cultural sites on the Chukchi Peninsula through collection, preservation, research, and extensive display of the objects of material and spiritual culture of the Native residents in the region of the Eskimos and Chukchi.
2. The study of the unique natural features of the Beringia region through traditional uses of

nature by the Native inhabitants of Chukotka.

3. The study of the history of geographic discoveries in the region of the Chukchi Peninsula, as well as the history of the founding and development of the Provideniya District.

The sphere of interests of the museum includes the Provideniya and Chukotka Districts. Here it is important to mention that this was part of the dryland isthmus that once existed between Chukotka and Alaska—Beringia. The first people who settled Chukotka about 20,000 to 25,000 years ago were mammoth, bison, and reindeer hunters. Scholars think the first inhabitants—ancestors of modern Indians—passed across the Bering Land Bridge from Asia to America. Global changes in the climate and the features of the coast about 10,000 to 12,000 years ago were the reasons for the submergence of the hypothetical Beringia.

In this connection, the role of the Provideniya museum as the primary state institution grows in the area occupied with the collection, preservation, study, and demonstration of the rich natural, cultural, spiritual, and historical heritage of the region. The museum personnel constantly work in close contact with Native peoples, old-timers, creatively gifted people of the region, and Russian and foreign scholars and researchers, which in many regards determines definite success in the formation of the collections and creation of the exhibits.

The basic financing and coordination of work at the museum, as a municipal institution, is carried out by the administration of the Provideniya District.

## **2. Goals and Aims**

In 1998 the following aims were set before the Provideniya Regional Museum:

1. To assist in the future in the collection, display, and interpretation of objects of art and material culture, which tell of the traditional way of life and uses of nature by the Native peoples of the Chukchi Peninsula.
2. To prepare a final version of a catalog of objects of Chukchi and Eskimos material and spiritual culture for the Provideniya Museum collection.

### 3. Methods

I. To attain the aim of expanding the collection, research, and display of the items of material and spiritual culture of the Native residents of Chukotka, the Provideniya Museum personnel carried out the following work in 1998:

1. At the beginning of the year a general museum plan was created for scientific research, science education, display, and repository work for the forthcoming year.

2. From January to March an anniversary exhibition for a local artist—“Artist I. Mamaev is 60”—was organized.

3. In June the exhibition “Nature and Geography of the Chukchi Peninsula” was organized with a display of natural objects (minerals, mounted birds, fish, and sea mollusks) and colorful photographs of nature and the peoples of Chukotka, as well as items of traditional applied art.

As part of the museum getting ready for tourist season 1998, in May and June the hall for the permanent display “Yaranga and Implements of the Reindeer Herders” was reconstructed and renewed. Specifically, the artistic background and illumination for the yaranga were arranged, an artificial backdrop imitating a grassy panorama was created, and a display of objects from the daily life of the Reindeer Chukchi and the execution of their rituals was added.

4. From July to September the museum workers were committed to short trips to the early and traditional settlements of the Eskimos for the purpose of recording, studying, and collecting material coming to light. During this period the following settlements were visited:

Avan—an early and traditional Eskimo village.

Plover—an early site, formerly a sea mammal hunting center.

Nayvak—an early site (Mesolithic, about 8,000 years old).

Uniyramkyt—traditional Eskimo settlement.

Tyflyak—traditional Eskimo settlement.

Tkachen—historical site and natural monument.

As a result of carrying out “Field Season 98,” museum workers collected and turned over to the museum 39 objects of material and spiritual culture of the Native inhabitants of the Chukchi Peninsula.

5. During August and September the museum personnel, in addition, aided in organizing excavations, providing transportation, and supplying provisions for the Beringia Archaeological Expedition of the Moscow Institute of Natural and Cultural Heritage directed by S. Gusev, Candidate in Historical Sciences. This expedition was the first to discover and carry out excavations

of the northeasternmost Mesolithic site dating between 7,700 and 9,000 years ago.

The museum also assisted Saunders MacNeil, an Anchorage student, in conducting research work in the region of the Provideniya District on the theme “Portrait of a Separated Family of the Maritime Culture.”

A visit to the Provideniya Museum by Laura Kendall and Alexia Bloch, personnel of the American Museum of Natural History (New York), promised good prospects for joint cooperation between the two museums.

6. During the summer the museum performed services for foreign tourists who visited Provideniya by plane and cruise ship. Tours through the displays and slide show programs on nature and the peoples of Chukotka were conducted for the visitors.

Also in summer, museum personnel V. Bychkov and I. Zagrebin worked as nature guides for foreign tourists on the scientific research ship *Akademik Shuleykin*, which traveled from Provideniya to Uelen to Wrangel Island.

During this period more than 1,500 people visited the museum.

7. In September and October the museum exhibition halls displayed two new exhibits: “Implements of the Coastal Peoples” and “The Old Quarters of Provideniya.” The archaeological and ethnographic collections, photographs, art works, and items on the history of the founding of the town of Provideniya were used to create these exhibits.

8. In conducting the work of collecting, preserving, studying, and displaying the objects of the natural, cultural, and historic heritage of the Chukchi Peninsula, the museum personnel, with substantial material support from the National Park Service in Alaska and the North Slope Borough, as well as the active participation of local residents, collected 1,179 items of significance for the museum in 1998. As a result of gifts, 1,104 objects were received in the museum, as well as 39 items from expeditionary collections and 36 items from purchases.

**II.** To attain goals connected with compiling the catalog of objects in the archaeological and ethnographic collections of the Provideniya Museum, museum personnel carried out the following work during the past year:

1. Work was completed on refining the structure of the catalog.

2. V. Bychkov and I. Zagrebin, using scientific literature and their experience with the grouping of archaeological objects left by S. Rudenko, worked on describing the objects, which were arranged in particular groups according to their functional type.

3. The Chief Curator of the museum, T. Zagrebina, and Junior Science Researcher, E. Tagrina, carried out selection, refinement of attributes, and computer entry of tables outlining the archaeological and ethnographic repositories of the museum collection.

4. The Museum Photographer, V. Zhuravkov, completed photographing and producing photographic prints of individual exhibits selected for illustration in the catalog.

5. Included in the text was an article by Candidate of Historical Sciences S. Gusev, “The Archaeological Aspect of the Settlement History of Beringia.”

As a result of this work, a rough draft of a *Catalog of Objects of the Material and Spiritual Culture of the Chukchi and Eskimos from the Collections of the Provideniya Regional Museum* was composed.

The creators of this catalog hope that this work will serve as good scientific and popular illustrative material, both for many researchers of the Eskimo and Chukchi cultures and for residents of Chukotka who are not indifferent

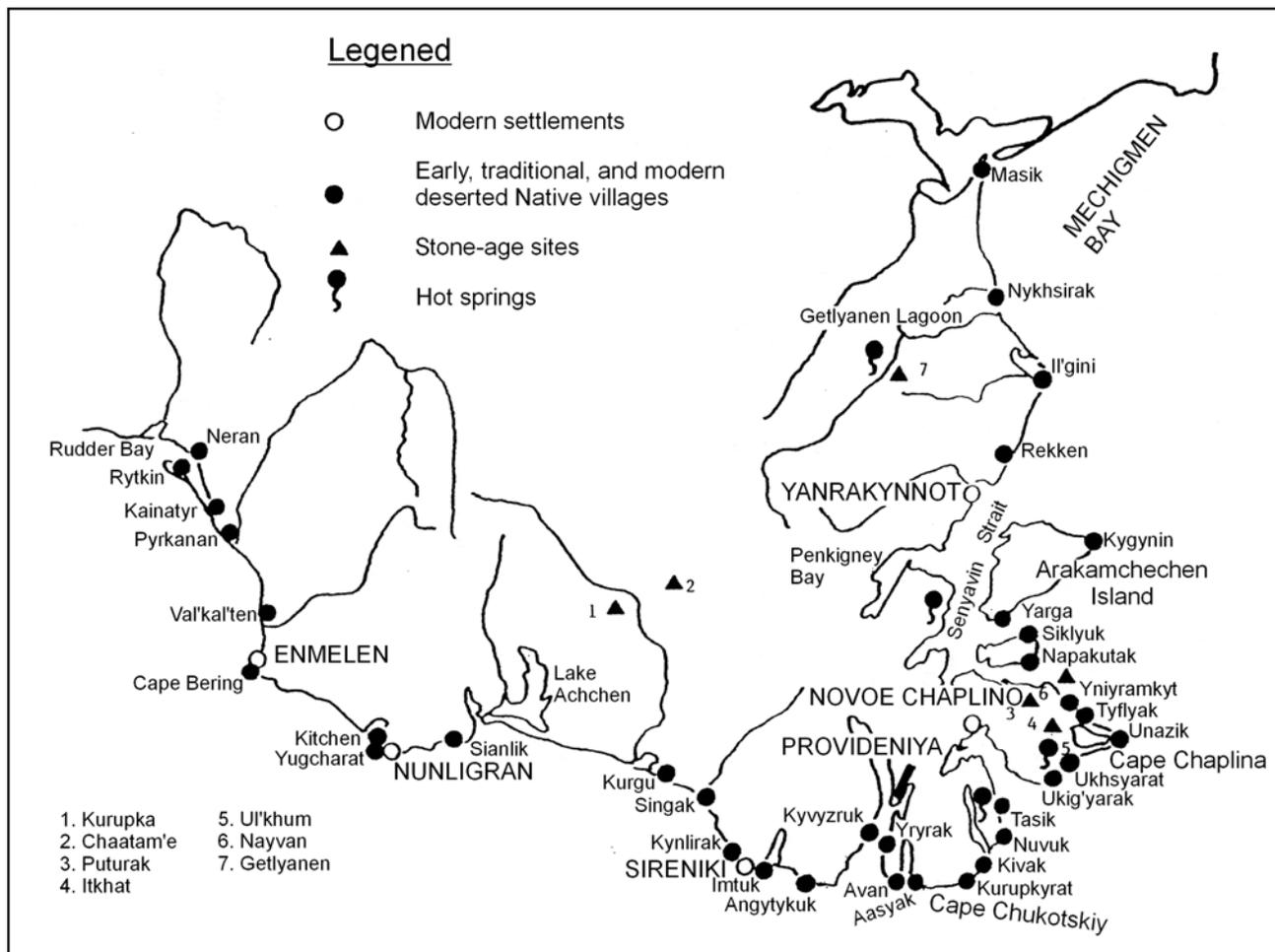


Figure 3. Natural, historical, and cultural sites of the Provideniya District.

## The Archaeological Aspect of the Settlement History of Beringia

by S. V. Gusev

Geographically, eastern Chukotka is located on the Chukchi Peninsula. It is bounded in the west by the Amguema River and the Iskaten Range, and in the north, east, and south it is washed by the waters of the Arctic and Pacific Oceans. Administratively, eastern Chukotka includes three districts of the Chukotka Autonomous Region: the Chukotka, Provideniya, and Iultin (in part). This huge region has an area of about 90,000 km<sup>2</sup>. Its situation at the northeastern extremity of Eurasia and the threshold of America determines its unique geopolitical position.

A complete discussion of the prehistory of eastern Chukotka cannot be done within the confines of this article. The article gives an overview, and its basic aim is to note the primary periods of settlement of this territory, as well as the development and changes of cultural traditions.

The interior regions, cut by river valleys and a chain of mountains in a southern direction, formed the basis for the penetration of land mammal hunters here. The rocky southern coast is washed by Pacific Ocean waters, while the coastal plains of the northern shore terminate on the coast of the Arctic Ocean. The prehistory of Chukotka has great significance for the study not only of the history of the peoples of Northeast Asia but of the population of America as well. Across Chukotka rolled waves of migrating populations, which formed the type for American native inhabitants. In the system of population contacts of the North Pacific, including the Asiatic and American coasts and island territories, Chukotka was a natural projection where all cultural impulses from more southern regions were reflected.

During the late Pleistocene, eastern Chukotka was a tundra steppe (or mammoth tundra) where lowland forests grew in refugia closed from the winds. The remains of such refugia are located in various parts of eastern Chukotka—alder groves in Chegiton and thickets of red currants in Getlianen. The commonly accepted view is that 10,000 years ago Bering Strait was formed as a result of the melting of the ice and the rise in sea level. The commonality of the natural history of Chukotka and Alaska was breached. South of the throat of Bering Strait the Bering Sea was formed, and north of it the Chukchi Sea.

At the time of the arrival of the Russian peoples in Chukotka (1648) the coast was settled by peoples adapted to life on a coast bound by winter ice. On the coast lived the Eskimos, Coastal Chukchi, and Kerek. The Asiatic (or Siberian) Eskimos speak a “Yupik” dialect and are part of the Eskoaleut language family. The Chukchi and Kerek speak languages of the Paleo-Asiatic language family. The Chukchi and Koryak lived in the interior regions of Chukotka (in the south). In the same place roamed the hunting-gathering Yukagir, whom some researchers view as the nearest relatives of the American Indians.

Western Chukotka is different from eastern Chukotka primarily because each is in a different climatic region. In addition to the tundra zone, there are areas of forest-tundra and taiga (along the river valleys). For western Chukotka the primary landscape-forming factors are the Anadyr River and the tributaries of the Kolyma River (Aniui River and others), and the chain of high mountain massifs of extinct volcanos. The rivers of eastern Chukotka are not large in dimensions, but each forms some niche favorable for life. During warmer periods the forest-tundra pushes far to the north, creating conditions for cultural monopolies.

The prehistory of Beringia can be described in today's level of knowledge as a series of cultural traditions. Each cultural tradition represented a group of components that a type of economy defined. The cultural traditions are represented by archaeological sites: camps, villages, cemeteries, and petroglyphs.

At the present time, when the level of study of Beringia is not high, researchers attempt to construct chronological series on the basis of those few sites where small excavations have been carried out (Dikov 1979, 1993, 1997; Kir'yak 1993). These models are superimposed over broad geographic

regions. These constructions are based on the comparison of small sets of artifacts (generally, of stone). A purposeful program of archaeological research is necessary for Chukotka, with the execution of large-scale excavations of broad territorial scope. There are areas of the coast with very rich bio-resources, where in general no archaeological research has been carried out (for example, from the Russkaya Koshka Spit to Enmelen in the Gulf of Anadyr). In the interior regions, the most interesting zone on the border between western and eastern Chukotka, from Chaunskaya Bay along the river valleys to the Gulf of Anadyr, is a blank spot. The region from Chaunskaya Bay in the north to the Gulf of Anadyr in the south and from the Belaya River in the west to Kresta Bay in the east is an area of the Bering Land Bridge along which the earliest settlers of the American continent passed. West of this region, early Stone Age sites have been discovered on Lake Chirovoe and Lake El'gygytgyn, in the east—early sites on the Ekitiki River, Lake Ekitiki, and the Amguema River. North of the region, sites have been investigated on Ayon Island on the lower reaches of the Pegtymel' River (sites and petroglyphs in the south), the Kanchalanskaya site, villages at Cape Nizkii, and Sedmoi Moorage (the Anadyr Estuary).

The complexity of research in Chukotka can be explained by the poor development of the transport network, as well as the high degree of industrial change of the landscape in the most favorable microregions for living: the mouth of the Anadyr River, the back of Kresta Bay, and Provideniya Bay. Archaeological investigations were not carried out here before the construction of modern dwellings and industrial complexes. As a rule, sites lie on the surface and can be destroyed even with insignificant mechanical force. In several cases, the sites were destroyed as a result of coastal erosion, landslides, solifluction, and wind abrasion. The smallest damage to the surface of the site can bring on the acceleration of natural processes of destruction.

Another complication is the fact that almost all the archaeological sites of the pre-Eskimo period that have been discovered are temporary camps with a very unsubstantial cultural layer and few artifacts. Offsetting this has been the discovery in eastern Chukotka in the last two decades of several large sites with a substantial cultural layer: Puturak and Ul'khum (Dikov 1993, 1997); Ekitiki (Kir'yak 1993a); Nayvan (Gusev 1998); and in north-central Chukotka, Tytyl' (Kir'yak 1997).

The chronology and periodization of Chukotka's prehistory still has not been put together, so we will try to make sense of it at the level of knowledge currently available.

One of the most important problems for the study of Beringian prehistory is the settlement of America. In the broad sense this problem includes the question of the time of initial penetration by people from Asia into America across the Bering Land Bridge, as well as the study of subsequent waves of migration during the period of existence of the Bering Land Bridge. The accepted view of this is that 13,000 years ago groups of hunter-gatherers were already crossing from Siberia to Alaska. From this connection the question arises regarding the discovery of traces of the migrants in Chukotka. Unfortunately, at present no real traces of people in Chukotka are evident from the Pleistocene. One interesting site, Kymyneykey, in the Vankarem lowlands (western Chukotka) (Laukhin et al. 1989) cannot be reliably dated because it was discovered while boring to a depth of 30 m in disturbed geological layers, the age of which was determined to be 30,000 years. The Puturak workshop site and the Ul'khum site, assigned by N. N. Dikov to the Late Paleolithic, are, in the context of recent investigations, nevertheless early Holocene in time and scarcely earlier than 10,000 years. Quite another matter is the fact that eastern Chukotka was favorable for occupation by mammoth hunters. The in situ find near Uelen of a mammoth tusk with an age of 14,380 years (GIN) attests to the fact that at the isthmus itself no ice sheet existed during this period. Sites dating from this period of the Bering Land Bridge will probably not be found in the context of modern landscapes, but with regard to geomorphological processes that occurred from 15,000 to 10,000 years ago. Based on the analysis of linguistic, genetic, and morphophysical data, the hypothesis of three waves of migrants, who arrived in Alaska from Siberia and Northeast Asia, can neither be confirmed nor refuted today by the archaeological materials.

## The Microblade Tradition

The earliest archaeological evidence from the settlement of Chukotka is present in sites that illustrate the technology of making tools on microblades. This tradition is represented by a series of sites with radiocarbon dates. In eastern Chukotka, Dikov (1993, 1996) discovered the sites of Ul'khum, Chel'kun IV (with a date of 8,150 B.P.), Ananayveem (8,410 B.P.); M. A. Kir'yak—Ekitiki (1993a); S. V. Gusev—Nayvan (Le, 7,700 B.P. and 9,000 B.P.) (1999) and Nunligran 3 (1998). Especially interesting, the Nayvan site is located on Cape Chaplina on a terminal moraine at the base of a 500 meter-wide sand spit. The site is situated at the entrance of the Itkhat River valley near the small Peschanoe and Svetloe Lakes, which some time ago formed a whole with Lake Nayvan. Several early Holocene sites have been found in this area (Dikov 1993, 1996). The lakes still abound with fish, specifically, cisco and lake loach. The site was discovered in 1997, and in 1998 an area of 51 m<sup>2</sup> (the total area of the site is 2,500 m<sup>2</sup>) was excavated by a joint expedition of the Russian Science Research Institute of Cultural and Natural Heritage and the museums of Provideniya and Anadyr. The cultural layer was as much as 60 cm thick. Six-hundred artifacts were found: cores, microblades, and flakes. Eight blades bear traces of use as knives and micro-scrapers. One skreblo of obsidian was found. With the exception of three objects, all the artifacts were made from one kind of material—dark-gray quartz-chlorite slate. It is interesting that all the artifacts at Puturak and Ul'khum were made of this same material. At the Nayvan site, two dwellings were found. The form of one can be defined as roundish, with a diameter of about 9 m. The dwellings were built on aeolian sands; at the base of the sands (at a depth of 1 to 1.2 m) lie moraine deposits. In the dwellings were found three workshop areas and traces of hearths with wood charcoal. The dates obtained, 7,700 and 9,000 B.P., attest to an early Holocene age for the site. The small fragments of mussel shell found in the cultural layer indicate the use of marine bio-resources. Even the first results of the archaeological investigations at the Nayvan site permit making it a type site for the study of Beringian history in the early Holocene.

In broad plan the materials from Nayvan and Chel'kun are similar in technology and time to analogs in eastern Chukotka—Ekitiki, in the west—Tytyl', and in Alaska—sites of the Paleo-Arctic tradition (Dumond 1977, 1987). At the Zhokhova site (New Siberian Islands) (Pitulko 1988) the materials look like the Sumnagin culture of eastern Siberia (Mochanov 1977) and the Anangula site in the Aleutian Islands (Laughlin and Aigner 1966; Aigner 1970). The population that used microblades in its economy mastered not only the interior regions, where it hunted large mammals and fished in the rivers and lakes, but also the sea coast. Possibly during this period, the maritime adaptation of the Bering Strait population began. Discoveries in recent years suggest the presence in Chukotka of still more interesting early Holocene sites containing strata filled with cultural material.

The subsequent period, which can be tentatively called the Neolithic by analogy with European periodization, is still less clear. In the Early Neolithic stage the use of retouch began in the preparation of tools on flakes and blades. With the preservation of small blades, the technique was generally developed in the direction of an increase in the size of blades and the use of grinding in the preparation of tools. Sites of this period are few in number and are represented in Dikov's materials from the Amguema and Dikova's (Kir'yak's) from western Chukotka.

The sites are characterized by their small dimensions and modest cultural layers. Finds are frequently few in number. Wandering hunter-fisher-gatherers continually traveled in search of food. They also mastered the most productive niches on the sea coast. The cultural layers in Neolithic sites are often covered by thick cultural deposits of Eskimo settlements.

In 1997 the largest area of Neolithic sites on the shore was found in Preobrazheniya Bay (Nunligran—Cliff) on the highest cape by a stream in the vicinity of an Eskimo settlement. Not far to the west of Nunligran on a cape standing by the mouth of the K'khuyveem River (Gusev 1998) still another

Neolithic site was found. Isolated finds of Neolithic appearance were obtained from excavations in the Eskimo cemeteries at Uelen (Arutiunov and Sergeev 1969) and Chini (Dikov 1974), as well as the Dezhnevo site (Gusev 1992).

During the Neolithic period and early metal ages in Yakutia and in Chukotka (Lake Tytyl', Amguema River, and along the Anadyr and Aniui Rivers), the Ymyyakhtakh tradition existed everywhere (Fedoseeva 1980). For this tradition the characteristic features are the presence of ceramics with waffle stamp, multifaceted burins, file-like arrow points, subtriangular knives, and the retention of a small number of blades in the assemblage. The Ymyyakhtakh tradition flowered during the period 4,200 to 3,300 years ago. Eastern Chukotka was a peripheral region for this tradition, where it continued to exist in the form of isolated tool types after it had been replaced by other cultures that arrived from southern regions into Yakutia and western Chukotka. In eastern Chukotka the Ymyyakhtakh culture absorbed several earlier features of Neolithic hunters with smooth-walled ceramics. The Ymyyakhtakh tradition in eastern Chukotka existed up to the first millennium A.D. Tools of this tradition are represented in Preobrazheniya Bay, in the upper layer of the Nayvan site. These were the temporary camps of wandering hunter-fisher-gatherers. The Ymyyakhtakh people came on the coast to spear seals and possibly walruses. Their seaside sites were often located at the places where Eskimo cultures later settled. Ymyyakhtakh tools have been found at the Uelen (Arutiunov and Sergeev 1969) and Chini cemeteries (Dikov 1974). In parallel with the Ymyyakhtakh tradition the Severo-Chukotskaya [Northern Chukotka] culture existed in northeastern Chukotka (Dikov 1979), while in the southwest, on the coast of the Bering Sea from the Anadyr Estuary to Cape Navarin, existed the Lakhtina culture (Orekhov 1987, 1999) with archaic Neolithic features in its assemblage. No clear traces of any culture dating from the second and first millennia B.C. have been revealed in eastern Chukotka. This is possibly connected with the climatic cooling during the interval 1500 to 1100 B.C. Evidently the population during this period was sparse. Such small populations were also evident in Alaska (Dumond 1977, 1987; Giddings and Anderson 1986).

In the study of the Ymyyakhtakh tradition an important question has arisen: what is its connection with the Eskimo cultures? Undoubtedly, some component of the Ymyyakhtakh tradition formed a part of the Eskimo cultures of Chukotka, along with population assimilation. Ymyyakhtakh features can be traced in the stone assemblage of the Siberian Eskimos (especially in the Sirenikis, Singak, Chini, and Uelen). At the same time, "waffle" ceramics with large indentations from the Eskimo settlements of the Sireniki and Singak are assigned to the first millennium A.D. and are analogous to synchronic sites of Yakutia.

In the first centuries of our era the Thule tradition (which includes Old Bering Sea-Okvik, Birnirk, Punuk, and late Thule cultures) became widespread on the coast and islands of the Bering and Chukchi Seas. These were the bearers of a developed maritime culture. Characteristic remains of these cultures are toggling harpoon heads for hunting sea mammals, ground slate tools, iron burins, oil lamps, kayaks and umiaks, close waterproof clothing, semi-subterranean dwellings with whale bone frames, and dog traction devices. The vividness and originality of the cultures is manifested especially in the art of carving ivory, specifically the elegant designs on splendid artifacts of walrus tusk. Different designs on the walrus tusks distinguish the cultures (Collins 1937; Rudenko 1947; Larsen and Rainey 1948; Arutiunov and Sergeev 1969, 1975; Bockstoce 1973; Dumond 1977, 1987; Giddings and Anderson 1986). The efflorescence of the art of carving bone occurred in the Old Bering Sea-Okvik culture. The cultures are distinguished primarily in their organization of sea mammal hunting. The cultures were often synchronic, that is, different subtypes of tools appear in the same layer in sites and even items differing in design—and thereby signaling different cultures—can be found in a single burial. Radiocarbon dates also indicate the synchronicity of complexes (Gerlach and Mason 1992; Gusev, Zagoroulko, and Porotov 1999). The Old Bering Sea-Okvik culture was spread along the shore of Chukotka from the Gulf of Anadyr to Cape

Shmidta on the coast the Arctic Ocean during the period of the first centuries A.D. to the sixth-eighth centuries A.D. In the Bering Strait region, there were contacts with the Ipiutak people of the Alaska coast. The Old Bering Sea-Okvik people hunted walruses, seals, and whales. Walruses were the primary food source.

The Birnirk culture was located from the mouth of the Kolyma River to Bering Strait, including the southern edge (Gusev 1995), and chronologically appears between the sixth and tenth centuries A.D. During this period seal hunting was the primary economic-driven occupation. No harpoon heads for hunting whales have been found. Decoration is substantially simplified. The significantly rarer use of iron in the preparation of harpoon heads is possibly connected to weakening contacts with regions to the south and west, where metal was widespread and even produced (Khlobystin 1998).

Evidence of the Punuk culture is everywhere on the coast of Chukotka, its area extending from the mouth of the Kolyma River to the southern shore of the Gulf of Anadyr. During the period from the eleventh to thirteenth centuries A.D. a group of land mammal hunters entered the maritime population of Chukotka. The share of land mammals (reindeer-caribou and snow sheep) in the food ration sharply increased. At the same time, development of walrus and whale hunting began again. “Waffle” ceramics with large indentations have emerged at Eskimo sites, which attest to connections with the Lena-Kolyma region. Connections with southern regions became permanent; a marble spindle from Primorye dating from the eleventh-twelfth centuries and found in the Ekven cemetery attests to the existence of trade with distant regions. Iron burins have been found. Punuk design in many ways is different from that of the Old Bering Sea-Okvik and Birnirk cultures. For example, the percent of decorated artifacts made from antler increases.

The late Thule tradition is characterized by large-scale whale hunting. Not only were young whales procured, but also large adults—especially bowhead whales. The villages stand on the edges of capes. Their dwellings become substantially larger in area and generally use the bones of bowhead whales in their frames. The villages also are larger. Late Thule began in the thirteenth-fourteenth centuries A.D. and continued up to the arrival of European whale hunters in the nineteenth century. Its area can be traced from the Gulf of Anadyr to the mouth of the Kolyma River.

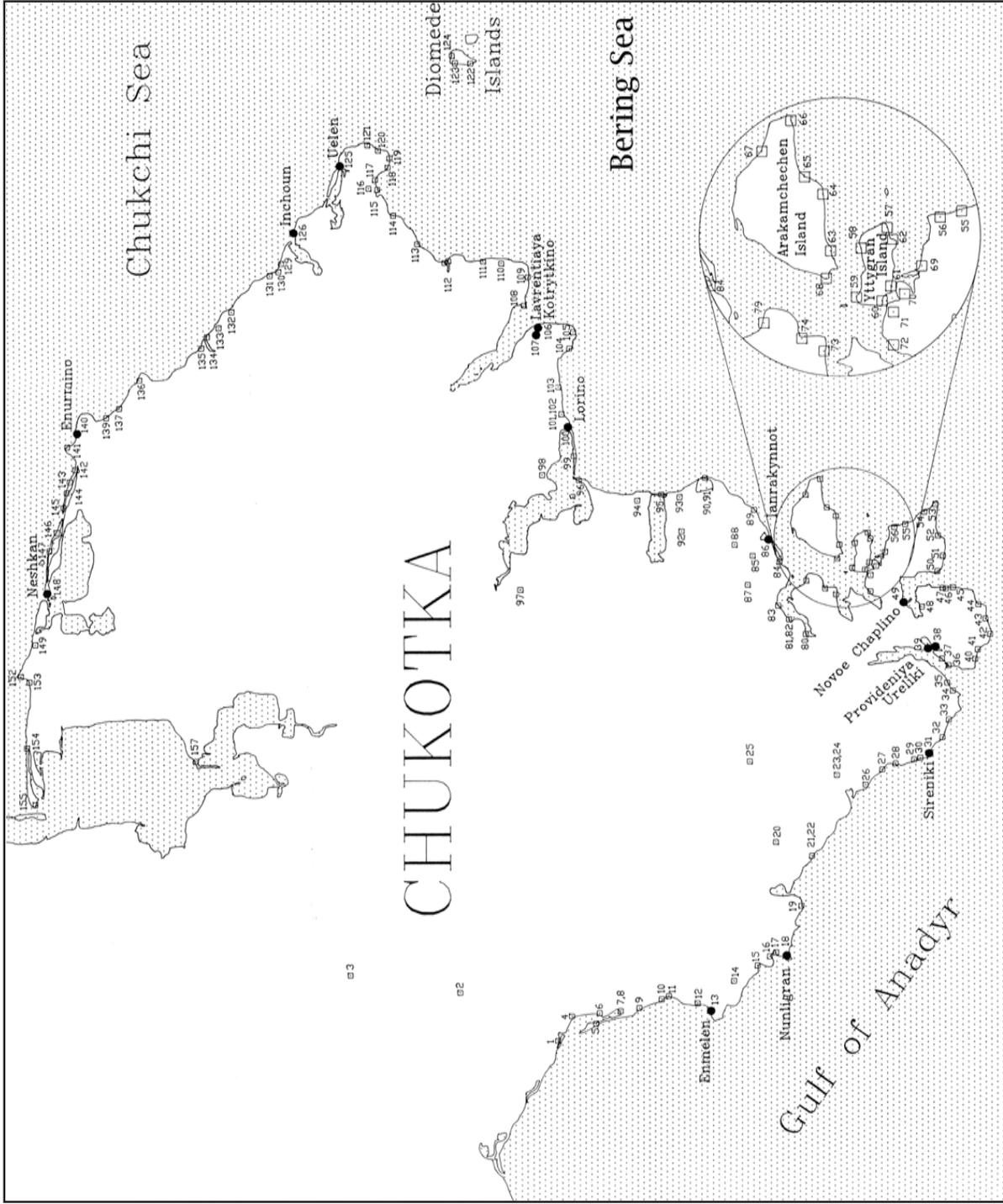


Figure4. Map of early and modern settlement of the Chukchi Peninsula (see Appendix 1 for additional information about this map).

## Toggling Harpoon Heads and the Periodization of Eskimo Culture

by I. A. Zagrebin

In structural complexity, toggling harpoon heads vary according to the material from which they are made (walrus tusk, antler, bone); by the size, form, and in the proportions of the different parts; in the combination of the component parts; and in the technique of preparation and decoration. All these features make it possible to establish types and identify them in cultural complexes of Eskimo sites. In addition, harpoon heads made of walrus tusk, bone, or antler are much preserved, and owing to their variability over time and space, they are the leading forms for characterizing the developmental stages of Eskimo culture.

The typology of toggling harpoon heads and their structural peculiarities lay down the foundation for the dating and periodization of early Eskimo cultures.

There are several classifications of types of toggling harpoons. The first detailed classification of early Eskimo harpoon heads was worked out by the American researcher H. Collins at the end of the 1930s. The classification of harpoon heads he elaborated was based on archaeological materials from excavations of early Eskimo sites on St. Lawrence Island (Alaska, USA). Especially rich archaeological material was provided by excavations of early sites at the village of Gambell (at the northwestern extremity of the island). A total of 417 toggling harpoon heads were found there. The finds permitted the researcher to trace changes in the material culture of the Eskimos of St. Lawrence Island and propose a chronological periodization of its cultural stages.

The periodization of Eskimo culture on St. Lawrence Island (according to Collins) is:

- Old Bering Sea—fourth century B.C. to ninth-tenth centuries A.D.
- Old Bering Sea and early Punuk—ninth to tenth century A.D.
- Early Punuk—tenth to eleventh century A.D.
- Punuk—twelfth to fourteenth century A.D.
- Late Punuk—fourteenth to seventeenth century A.D.
- Proto-historic culture—seventeenth to eighteenth century A.D.
- Contemporary culture—end of the eighteenth century to present.

The periodization proposed by Collins is assigned to the Neo-Eskimo Northern Maritime tradition. This classic Neo-Eskimo culture was first distinguished as a result of pioneering investigations by Diamond Jenness, Henry Collins, Otto W. Geist, S. I. Rudenko, Louis Giddings, and Froelich Rainey.

This culture includes the highly specialized maritime cultures of Okvik, Old Bering Sea, and Punuk, the chronological frameworks of which are unclear at present. Excavations in the Arctic have led to the discovery of stages of development of Neo-Eskimo culture, including Okvik, Old Bering Sea, Birnirk, Punuk, and Western Thule (for North America). Excavations of five sites in the vicinity of Gambell, St. Lawrence Island (USA), indicated an unbroken 2,000-year history of Eskimo culture in the form of periods of development successively superceding each other—from Old Bering Sea-Okvik to the present time. The most characteristic features of these cultures have an Asiatic origin. In Collins's (1937) opinion, Northeast Asia—the country between the Anadyr and Kolyma Rivers—is the place of origin of Neo-Eskimo culture. However, the roots of this culture are found deep in the interior of Northern Asia. The most recent excavations in Northeast Asia have provided additional evidence on the distinctiveness of the material culture of the early Eskimos. A “classic” site of the period of the Okvik culture was discovered by Otto W. Geist on one of the Punuk Islands situated near the eastern coast of St. Lawrence Island. The successively superceding cultures from Okvik-Old Bering Sea to modern ones have been noted in sites located from Northeast Asia to Greenland, representing an unbroken community of cultures under the common name Northern Maritime tradition.

In the opinion of Soviet (Russian) researchers of the Eskimo problem, S. A. Arutiunov and D. A.

Sergeev (1975), according to its time of emergence the Old Bering Sea culture is the oldest (the first centuries B.C. to fifth-sixth centuries A.D.). In the early and late stage of its development (third-fourth centuries) the Old Bering Sea culture existed in parallel with the Okvik culture (Okvik culture: second-third to eighth centuries A.D.). Coming to the end of its development, this complex of early Eskimo cultures gradually changed into a later range of forms known as the Birnirk and Punuk cultures. The transition from Old Bering Sea to the early Punuk culture extended into a rather long time—approximately from the eighth to the ninth century. The period from the eighth to the tenth century is usually called the early Punuk period, and from the ninth to the twelfth century—developed Punuk, which is replaced by the Thule culture—twelfth to fifteenth centuries. In Soviet (Russian) literature the period from the twelfth to fifteenth centuries is assigned to the developed Punuk period. This is followed by the proto-historic culture, and then the modern one, from the beginning of the twentieth century. The Birnirk culture, which was also formed as one of the variants of the Old Bering Sea culture, had an area of development north of Bering Strait. The Birnirk people were late arrivals in the villages of Bering Strait. The dates of the Birnirk culture are the sixth to tenth centuries.

The general scheme for dating the Northern Maritime tradition is:

Early Old Bering Sea	second century B.C. to third-fourth century A.D.
Late Old Bering Sea	third-fourth to fifth-sixth century A.D.
Okvik	second to eighth century A.D.
Birnirk	fifth-sixth to tenth century A.D.
Early Punuk	eighth to ninth century A.D.
Developed Punuk	ninth to twelfth century A.D.
Late Punuk	twelfth to sixteenth century A.D.
Proto-historic	seventeenth to nineteenth century A.D.
Modern	from the beginning of the twentieth century A.D.

## 4. Equipment for Hunting Sea Mammals.

### 4.1. Sea mammal hunting by the coastal residents of the Chukchi Peninsula.

More than 2,000 years ago the ancestors of the modern Eskimos, arriving on the shore of the Bering Sea, found the richest walrus haulouts. It was at these haulouts that sea mammal hunting both began to develop and improve. Later, the basic tool for such hunting became the harpoon with a toggling head.

Hunting walrus became the basic kind of traditional activity for the coastal residents over the extent of many hundreds of years, and it preserves its significance to the present day. The walrus represents life for the coastal people: meat and fat for nourishment of the family; food for the sled dogs; the cover for the baidar, the semi-subterranean or frame dwelling, as well as the floor for the dwelling; material for the most varied sorts of items of the hunting and household inventory (tusk, bone, baculum, hide); fuel (bones were covered with oil and burned); and trade goods.

The mastery of this kind of traditional economic activity first began on the shore, at the haulouts, in the fall, then on the ice in the spring and beginning of summer. Hunting on the shore and on the ice did not require a complicated harpoon complex for hunting sea mammals. Spearing walrus was done with a lance or spear.

With the transition to hunting walrus in open water, in ice-free water, and polynyas in the ice, a method of hunting with a harpoon with a toggling head began to develop and be refined.

Sea mammal hunters of the northern part of the Pacific Ocean invented the toggling harpoon head, which became widespread in those regions where the sea was covered by floating ice and ice conditions permitted hunting walrus while afloat. The coast of the Chukchi Peninsula is assigned to a region with just such ice conditions. In Bering Strait in winter there is constant movement of the ice, patches of ice-free water, and areas of open water. From Cape Chaplina to Kresta Bay (the southern shore of the Chukchi Peninsula) a permanent polynya is formed beyond the shore ice.

The appearance and widespread distribution of toggling harpoon heads in regions with floating ice or polynyas can be explained by the fact that in hunting at or near the edge of the ice, as well as on floating ice, a harpooned animal tries to go under the ice. The basal end of a non-toggling harpoon head, sticking from its body with the line fastened to it, could be broken off by the submerged part of the ice. The natural conditions in the region of hunting sea mammals dictated the appearance of a head that would become deeply fastened in the flesh of the animal, with only the pliable line protruding from the surface of the animal's body.

The initial tool for a toggling head could have been the blade of a lance or spear, which was used for spearing animals, or a non-toggling harpoon head or leister.

Lateral stone insets (microliths) of the earliest toggling heads descend from knives and spears with lateral insets of stone worked by pressure retouch. Later end blades, which were set in a slot in the front end of the head, replaced lateral insets. Initially they were of stone, but later they began to be made of slate and were carefully ground. At the end of the nineteenth century iron end blades replaced slate ones. The end blade as part of the toggling harpoon head has been preserved even in modern heads.

For hunting sea mammals it was necessary to disconnect the blade, the stem of the harpoon head, and the head of the forward part of the harpoon shaft, that is, to have a compound construction. Presumably, the blade of a lance or spear was transformed into a toggling harpoon head in which there were a central hole for fastening a line (originally there were two), a slot for the end blade (in the earliest specimens—side blades) in the front part of the head, and a rear spur (various features of construction were possible). The haft as a part of the single whole head yielded a place for the harpoon foreshaft, a

spindle-shaped bone rod with one end set in the socket (of open or closed type) of the toggling harpoon head and the other in a hole in the end of the harpoon shaft or shaft head. The toggling harpoon and foreshaft were held on only by the tension of the line.

Upon striking an animal's body the harpoon head separated from the foreshaft and completely disappeared in the body of the animal. The jerk of the animal upon being harpooned caused the harpoon head to turn in the animal's body—it turned perpendicular to the entry hole. The shaft floated on the water and was later picked up by the harpooner; the foreshaft was tied to the shaft head or to the line and was not lost.

The early Bering Sea residents used various types of toggling heads for hunting. The final version of the toggling head included a closed socket, end blade, and one hole for a line. It is a well-known type of toggling harpoon head that sea mammal hunters of the ethnic villages of the Chukchi Peninsula presently use.

## **4.2. The harpoon complex and its component parts.**

1. *The toggling harpoon head*—the primary tool for hunting sea mammals, equipped with an end blade, has a basal spur for turning under the skin of the animal being procured and one or several holes for lines.

2. *The end blade of the toggling harpoon head*—the part of the toggling harpoon head—the primary tool for hunting sea mammals—that cuts through the tough hide of the sea mammal and eases the penetration of the harpoon into the body.

3. *The foreshaft for the toggling harpoon head*—the part of the harpoon complex that is assigned to implant the toggling harpoon head, and is the link of the compound union: toggling harpoon head—harpoon foreshaft—head of the harpoon shaft.

4. *The head of the harpoon shaft*—the part of the harpoon complex that is fastened to the forward part of the shaft and is intended for increasing the striking force of the harpoon.

5. *The harpoon finger rest*—a device attached to the harpoon shaft and intended to provide a better grip for throwing the harpoon.

6. *The harpoon ice pick*—of various types and made of different materials, ice picks have the same purpose; it is fastened to the butt end of the harpoon shaft and is intended for testing the strength of the ice and giving additional support to the hunter when hunting.

7. *The float stopper or mouthpiece*—an item set in the opening of a float. It has a bone or wooden aperture through which the float is inflated. It is a part of the harpoon complex.

8. *Plug*—an item that is intended for closing slits and other holes in a seal hide used as a float.

### **4.2.1. Toggling harpoon head.**

#### **4.2.1.1. The common features of a toggling harpoon head.**

The toggling harpoon head is compound and usually comprises: the socket and slots or grooves for the band that covers the open socket and keeps in place the foreshaft set in the socket; the spur; the

hole for the line; the barbs or grooves for stone insets; and the slot for the stone end blade.

The socket of the toggling head is of two types—open and closed—and is intended for seating the toggling harpoon head onto the foreshaft.

In the case of the open socket: on the end are additional devices for keeping the foreshaft in the socket of the head, which are made in a kind of slit for a band or groove, or a combination of them. A thin, supple strip of baleen is often used as a band.

Approximately in the center of the toggling head there is a hole for a line into which passes a leather thong that ends with a float of the *pykh-pykh* type. Heads are found with one or two holes for the line. The technique of making the holes and their form differs substantially among the various types of heads. The number and character of the holes for the line is one of the elements used to date toggling heads.

A spur is on the pointed rear end of the toggling harpoon head. There are a substantial number of variants in the form of the rear end of the head. Standing out are types of spurs that are symmetrical and asymmetrical in relation to the longitudinal plane of the head, as well as simple single ones, or complex ones—double or triple spurs.

Some heads differ from others by the presence of lateral barbs—serrated—which give the head an arrow-like appearance.

A distinguishing feature of the early toggling harpoon heads is the presence of lateral slits for stone insets (blades) of microliths. Many heads retain these stone insets, which are examined for how compactly they sit in the grooves.

In the front part of the head there may be a slot for an end point.

The investigations of ethnographers of the end of the nineteenth and beginning of the twentieth centuries are important sources about the general features of toggling harpoon heads and their use. A great deal of factual material is preserved in W. G. Bogoras's (1904) monograph *The Chukchee. Material Culture*. Bogoras spent several months in Chukotka in the spring and summer of 1901 traveling along the coast of the Chukchi Peninsula to Cape Chaplina. The bulk of the information is dedicated to the material culture of the Coastal Chukchi, but Bogoras makes numerous references to the culture of the Eskimos because he collected the primary material in the largest Eskimo settlement of that time—Unazik, located on Cape Chaplina.

The form of the heads is more or less uniform, while there are two different ways of attaching the head to the shaft, the method being the same for short as for long harpoons. The head of the Chukchi harpoon is cut out of bone, ivory, or antler. It is from three to four inches long, and has a piece of iron inserted in a slit at the top. I obtained one harpoon-head the body of which is made of brass, with the usual slit for inserting the iron piece. Two varieties of blade are used. One, found chiefly in the smaller heads, has a lanceolate form, with lower ends curved and filed off almost close to the body of the head (Fig. 30, a); the other form is broader, with lower ends protruding on both sides in sharp, cutting angles (Fig. 30, b). The two styles of blade correspond probably to two distinct forms of stone and slate harpoon-points, which were used before the iron ones (Fig. 31). The iron blade is firmly fastened into its slit with a wooden, bone, or iron peg. The usual hole for the line is, for the most part, parallel to the plane of the blade. The same two types occur among the Eskimo (Bogoras 1904:115-116).

...

Of all the contrivances employed by the Eskimo in maritime hunting, the detachable harpoon-head is most widely employed on the Asiatic shore (Bogoras 1904:116).

Regarding hunting walrus and whales, Bogoras notes that:

At the present time, however, walrus-hunting is done almost exclusively with rifles, especially on the Pacific (Bogoras 1904:122).

.....

Whaling was done in former times chiefly by the Arctic Chukchee, and on the Pacific coast by the Eskimo. For this purpose a large harpoon, with a heavy head perforated at right angles to the blade, was used. The line was very long and stout, and floats were attached to it in pairs in several places. Altogether there were two, three, or even four pairs. Now, on the Pacific, but little whaling is done, and that exclusively by the Eskimo of Indian Point, of Cape Chukotsky, of Cape Ulakhpen, and also by the inhabitants of *\_ibu`kak* on St. Lawrence Island. They all use explosive harpoons (Bogoras 1904:124).

#### ***4.2.1.2. The scheme for describing the toggling harpoon head.***

1. The socket for the foreshaft, at the lower end of the head.
  - a. Open.
  - b. Closed.
2. The presence of slots, grooves, or combinations of them for keeping the foreshaft in the socket of the head, as well as the characteristics of these devices.
3. The presence of a basal spur and its characteristics.
4. The central hole in the head for attaching the line.
  - a. One.
  - b. Two.
5. Lateral stone inset and the grooves for them.
  - a. Present.
  - b. Absent.
6. The location of the lateral insets or the grooves for them with regard to the hole for the line.
  - a. Parallel.
  - b. Perpendicular.
7. Slot for the end blade.
  - a. Present.
  - b. Absent.
8. The location of the slot for the end blade with regard to the hole for the line.
  - a. Parallel.
  - b. Perpendicular.
9. Material.
10. Form of the head.
11. Technical preparation.
12. Decoration.
13. Dimensions.

#### ***4.2.1.3. Whaling harpoon heads.***

On the Chukchi Peninsula the prevailing number of sea mammal bones—of walrus, various kinds of seals, and whales—in the cultural layer of the coastal residents' early sites and the obligatory presence of meat caches in these sites point to the paramount importance of sea mammal hunting.

According to S. I. Rudenko (1947, 1972), finds of whaling harpoon heads, in comparison with finds of seal and walrus harpoon heads, in excavations on the Chukchi Peninsula, as on St. Lawrence Island, are extremely few in number. During archaeological excavations in 1945 Rudenko found four whole and several damaged whaling heads. All of these heads are connected with late sites, belonging to the second half of the Punuk cultural period (900 to 1200 A.D.).

All the whaling heads Rudenko found have closed, conically drilled sockets, a large triangular hole for the line, a simple basal spur, and a slot for an end blade in the plane perpendicular to the hole for the line. They are all made of walrus tusk and without decoration.

On St. Lawrence Island whaling harpoon heads appear for the first time during the Punuk cultural period. In Collins's (1937) view, this shows that the Eskimos began to hunt whales, though in insignificant measure, only during the Punuk period. Collins explains the use of whale bones as the remains of whales washed onto the shore.

Another researcher of Eskimo material culture, Froelich Rainey (1941), suggests that the ancestors of the Eskimos began procuring whales as early as the Okvik stage of development of the culture (the beginning of our era).

Rudenko believes that the lack of whaling harpoon heads found for Old Bering Sea times does not prove the lack of whale hunting.

Among the hundreds of harpoon heads in the cultural deposit at Sirhenik, we found only one whaling harpoon head, and a damaged one at that, though in Punuk times whales were hunted there most actively. . . . On the other hand, the Eskimos could have hunted young animals or small whales such as the beluga using large walrus harpoons. . . . Apart from harpoons, whale hunting also entailed the use of lances, the points of which do occur in Old Bering Sea artifact assemblages (Rudenko 1972:122).

On the whole, the question of when whale hunting began among the peoples of the Bering Sea, though much discussed, continues to attract the attention of scholars—Eskimologists.

I. I. Krupnik conducted one of the most complete and well argued investigations on this problem. These investigations are especially valuable for their basis on ethnic knowledge and ethnic memories of the Eskimos.

Relying on the archaeological materials, several chronological variants can be distinguished in the history of maritime systems for sustaining life on the Chukchi Peninsula. . . . In the Old Bering Sea-Okvik period (end of the first millennium B.C. and first half of the first millennium A.D.) walrus hunting played the primary role in the life support of maritime hunters. The life-support system of the Birnirk culture (middle of the first millennium A.D.) was oriented predominantly toward taking seals and reindeer, which is corroborated by the prevalence of small harpoons and the wealth of tools of reindeer antler. The Punuk model (second half of the first and beginning of the second millennium A.D.) reflects an obvious orientation toward group procurement of large bowhead whales and the general efflorescence of whaling in the early culture. In the life-support system of the subsequent Thule culture (middle of the second millennium A.D.), as among ethnographically known Asiatic Eskimos and Coastal Chukchi of the eighteenth and nineteenth century, the procurement of pinnipeds again prevailed, though whale hunting retained great significance (Krupnik 1989:166).

. . .

For Eskimo life support, hunting whales and walrus was the most progressive form of

mastering the hunted resources—a kind of “superior stage” in the use of Arctic maritime natural resources (Krupnik 1989:169).

. . .

Hunting whales began on the Chukchi Peninsula at least at the beginning of our era. In the settlements and cemeteries of the Old Bering Sea and Okvik cultures clusters of whale bones and baleen, large toggling harpoons, and slate knives for butchering whales have been found. The primary object of the hunt was probably bowhead whales; the bones of smaller—gray whales (*Eschrichtius robustus*) are encountered as isolates. But, in the sites and burials of the Birnirk culture (fifth to eighth century) the bones of bowhead whales are almost absent, while the number of bones of “small” (gray) whales notably increases. In sites of the Punuk culture (ninth to fourteenth century) the reverse picture is again observed: the remains of “small” whales disappear, but the bones and baleen of large bowhead whales are encountered in large quantity, as well as tools for hunting them: large toggling harpoons, killing spears and lances, and fragments of slate butchering knives (Krupnik 1989:169-170).



#### **Whaling harpoon head.**

Of large dimensions and elongated form, a harpoon head compressed on the sides with closed socket for the foreshaft; simple, single, asymmetrical basal spur with a pointed end; one central hole for the line, of large dimensions, and rectangular form; in the front end, a slot perpendicular to the plane of the hole for the line; ornamentation in the form of “dots” and short lines.

Surface find from the early Eskimo village of Kivak by a resident of Provideniya, V. P. Cherepanov, in the 1980s. Given to the museum as a gift in 1991.

Fossilized ivory; walrus tusk. 19.6 x 3.3 x 2.2 cm.

**Cat. # 2661**

#### **4.2.1.4. Toggling harpoon heads for walruses and seals.**

The toggling harpoon heads for walruses, and especially for small pinnipeds, are different from those for whaling in their great diversity of structural features and dimensions.

Rudenko believes that harpoon heads of more than 15 cm can be assigned to whaling, heads 10 to 12 cm to walrus hunting, and heads 9 cm to sealing. On the whole, this division by dimensions, especially for walrus and seal hunting heads, is rather tentative.

Toggling harpoon heads can be subdivided into several large groups based on structural features:

- number of central holes for the line,
- character of the socket for the foreshaft,
- presence of lateral insets or end blade.

The so-called barbed harpoon heads can be viewed as a separate group.

In the Catalog, toggling harpoon heads are grouped by the character of the socket and, based on data from the scientific literature, by age.

*A. Toggling harpoon heads with open socket for the foreshaft.*

Harpoon heads with an open socket prevail in number in the archaeological collection of the museum. They vary greatly by structural features, dimensions, and age.

The type of heads that Collins (1937), and after him Rudenko (1947, 1972), assigned to the earliest stages of development of Eskimo maritime culture, has the following features:

- open, trough-shaped, shallow, and wide socket for the foreshaft, two grooves for the band that keeps the foreshaft in the socket;
- a triple symmetrical spur with the middle barb longer and two round holes for the line;
- lateral insets located in the plane of the holes for the line or perpendicular to it; a variant has an end blade; decorated in Old Bering Sea style or without decoration;
- material is walrus tusk.

Typical Old Bering Sea harpoon heads are only rarely encountered. Several variations for making them exist. But the most characteristic feature is the two round holes for the line, which are retained in all variations of the heads. Heads with two holes for lines are characteristic for the first stage of the Old Bering Sea period. A derivative type, which existed simultaneously, was a toggling head with one hole for the line. The appearance of a toggling head of such type was brought on by structural shortcomings in the head with two holes for the line.

In the “body” of the toggling harpoon head two round holes were drilled, located along the length of the head. Between the holes a groove was carved in which the line was placed (the line was passed through the holes and a knot tied in its end; it did not form a loop as in the case of a head with one hole). When the wounded animal jerked, the partition between the holes could be broken, which resulted in the loss of the head and the prey. It is probable therefore that heads with one hole replaced heads with two holes.



**Toggling harpoon head (blank).**

Socket for foreshaft open and wide; for attachment of the band of the socket, two slits brought closer together on the back of the harpoon head are located in the longitudinal groove between the holes; symmetrical basal spur, with three barbs, the middle one is not much longer than the lateral ones; two, round central holes for the line; on the front end, two false barbs and grooves for lateral insets, located in the plane perpendicular to the holes for the line; without decoration.

Surface find, from a denuded cultural layer in the vicinity of Cape Lesovskiy by a resident of Provideniya, B. Gilyazov, in the 1980s. Given to the museum as a gift in 1996.

Fossilized ivory; walrus tusk. 9.6 x 2.2 cm.

**Cat. # 5603**



decoration, made by thin lines, of the Old Bering Sea type.

Surface find from the early Eskimo site of Nuvuk. Purchased from a resident of Novoe Chaplino, M. Agnagisyak, in 1998. Fossilized ivory: walrus tusk. 8.0 x 1.9 cm.

**Cat. # 6994**

In the development of Eskimo culture during the late stage of the Old Bering Sea period and the early period of Punuk toggling harpoon heads with one hole for the line and the following structural features were characteristic:

- open, shallow and wide socket for the foreshaft; two slits (a slit and a flute) for the band that supported the foreshaft in the socket;
- double, triple, or more complex, asymmetrical spur, one of the spurs usually longer; a variant is the simple spur and one line hole;
- lateral insets or end blade located in the plane of the hole for the line or perpendicular to it; decorated in Old Bering Sea style or without decoration;
- the material is walrus tusk.



#### **Toggling harpoon head.**

Socket for foreshaft open and wide; two slits with grooves for the band of the socket, brought closer together on the “back” of the harpoon head; basal spur asymmetrical, with three barbs, the middle one longer than the lateral ones; one central hole for the line; in the front end, two lateral slits for insets in the plane of the line hole; head equipped with stone insets; curvilinear decoration, made with thin lines, in Old Bering Sea style.

Found among early dwellings at Chechen. Surface find. Given to the museum by a resident of Novoe Chaplino, E. Enan, in 1998. Fossilized ivory: walrus tusk; stone; carving of ivory. 7.2 x 1.8 cm.

**Cat. # 7095**

In the collection of toggling harpoon heads, the best represented is the group of harpoon heads with open socket and the following features:

- socket for the hafting of the foreshaft is from open to half closed, one slit with opposite groove or two slits for attaching the band of the socket;
- one hole for the line, form from round to triangular; an asymmetrical simple, more rarely double or triple, spur;
- slot for end blade; material is of antler or bone, more rarely walrus tusk;
- decoration predominantly Punuk or without decoration.

Heads with such features can be assigned to different periods in the development of Eskimo culture and, as Rudenko (1972:119) notes: “On St. Lawrence Island this type existed from the Old Bering Sea period to recent times. Harpoon heads of this kind from the Chukchi Peninsula likewise vary in date.”

This type of head, comparatively few in number in the Old Bering Sea period, becomes prevalent in the Punuk period.



**Toggling harpoon head.**

Socket for foreshaft open; one slit with opposite groove for attaching band of socket; basal spur asymmetrical and triple; one round central hole; in the front end, a deep slot for the end blade located in the plane of the line hole; covered by rectilinear decoration of the Punuk type.

Found among early dwellings at Sireniki. Surface find. Purchased from a resident of Sireniki, Rakhtilkun, in 1997.

Bone: antler; carving in bone. 8.2 x 2.2 cm.

**Cat. # 6352**



**Toggling harpoon head.**

Socket for foreshaft open; two slits for the band of the socket brought closer together on the “back” of the harpoon head; basal spur asymmetrical and simple; one central hole; in the front end, a slot for an end blade in the plane of the line hole; covered with rectilinear decoration of the Punuk type.

Found among early dwellings at Sireniki. Surface find. Purchased for the museum from a resident of Sireniki, Rakhtilkun, in 1977.

Bone: antler; carving in bone. 9.3 x 1.9 cm.

**Cat. # 6353**

The form of the open socket of toggling harpoons continually changed over time, tending to narrow constantly. Among Old Bering Sea heads the socket for the foreshaft is very wide, often shallow, and trough-shaped. In the course of later, Punuk times, the open socket of the head becomes narrower, with straight walls. By late Punuk times heads appear with sockets having trapezoidal form in cross section. These replace heads with sockets rectangular in cross section. While for heads with straight socket walls the foreshaft is kept in it by the band of the socket, in the trapezoidal form the socket itself can partially support the foreshaft. This is achieved by constructing the socket walls inward—the base of the socket made wider than the top and the foreshaft kept in place even without a band.

**Toggling harpoon head.**

Socket for foreshaft half closed and trapezoidal; two slits for the band of the socket; basal spur asymmetrical and simple; one round hole for the line; deep slit for an end blade in the plane of the line hole in the front end; without decoration.

Found among early semi-subterranean dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1985.

Fossilized ivory: antler. 7.5 x 2.0 cm.

**Cat. # 135**

**Toggling harpoon head.**

Socket for foreshaft half closed and trapezoidal; one slit and groove opposite for the band of the socket; basal spur asymmetrical and simple; one hole for the line, with grooves that run toward the socket; in the front end, a deep slot for an end blade in the plane of the line hole; without decoration.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1985.

Fossilized ivory: antler. 7.5 x 1.5 cm.

**Cat. # 88**

The wedge-shaped construction of such a socket further developed owing to still more narrowing of its open part. Ultimately, the open socket takes the form of a cone or three-sided pyramid, situated in the body of the head, with a narrow slit in its outer wall. In this case, the band becomes superfluous and there are forms of heads with a half-closed socket and without any adaptation for the band of socket.

*B. Toggling harpoon heads with closed socket for the foreshaft.*

Gradually toggling harpoon heads with open sockets disappear entirely, making way for heads with only a closed socket. This transition occurred by proto-historic times. In spite of this development from heads with an open socket to heads with a half-closed socket, and, as a result, with a closed socket for the foreshaft, it is incorrect to assign the last heads only to the late stages of development of Eskimo culture.

Excavations by Collins (1937) on St. Lawrence Island indicate that the Eskimos used toggling heads with closed sockets in the early stages of development of their culture (Old Bering Sea). Materials from Rudenko's excavations on the Chukchi Peninsula in 1945, materials from excavations at the Uelen and Ekven cemeteries (Arutiunov and Sergeev 1969, 1975), and the most recent finds have confirmed the use of harpoon heads with closed sockets during the many centuries of Eskimo history. But these heads became the prevailing type in the proto-historic period, and in the historic (modern) period toggling heads completely vanish from use.

The collection of the Provideniya Regional Museum includes specimens of toggling harpoon heads with closed sockets, which are assigned to different stages of the development of Eskimo culture. Toggling heads of walrus tusk are covered with curvilinear decoration from the Old Bering Sea period. At the same time, simple heads of the proto-historic and modern periods are represented. All these confirm the existence of heads with closed sockets over the extent of the whole history of the Northern Maritime tradition.



#### **Toggling harpoon head.**

Socket for the foreshaft closed and conical; the basal spur symmetrical and triple; for the line, one round hole with a groove that runs toward the socket; on the front end, a slot for an end blade in the plane of the line hole; covered with curvilinear decoration of the Punuk type.

Found among early dwellings at Sireniki. Surface find. Purchased for the museum from a resident of Sireniki, Tatapiya, in 1995.

Fossilized ivory; antler: carving of ivory. 7.1 x 1.8 cm.

**Cat. # 5457**



#### **Toggling harpoon head.**

Socket for the foreshaft a closed triangular form; basal spur symmetrical and simple; one oval hole for the line with grooves running toward the socket; in the front end, a slot for an end blade in the plane of the line hole.

Found among old dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen, A. Tareev, in 1989.

Fossilized ivory; antler. 9.0 x 1.5 cm.

**Cat. # 1689**

#### **4.2.1.5. Blanks for toggling harpoon heads.**

The museum collection contains a significant number of toggling harpoon heads found in various stages of manufacture.

In order to make a harpoon head, a person had to prepare a blank of walrus tusk, bone, or antler. They usually took small walrus tusks and, at some distance from the front end, depending on the dimensions of the future head, notched the tusk. The tusk was notched obliquely around the circumference with a stone adze to approximately a depth of two thirds its thickness, then the blank was broken off. Antler was treated the same way. Traces of a stone adze and the location of the breaking of the blank have been well preserved in available finds.

In the following stage the blank was given the customary form and a central hole was drilled for the line. After this, the spur was formed, the socket for the foreshaft was marked, and slits for the groove (when necessary), incisions for the lateral insets, or a slot for the end blade were made. After the socket was formed, the surface was ground, the insets or an end blade were completed, and the decoration was

applied, the toggling harpoon head was finished.

As already noted, the Provideniya Regional Museum collection contains both initial blanks and almost finished toggling harpoon heads.



**Toggling harpoon head (blank).**

Object of triangular form, with simple symmetrical basal spur and marked, bifacial, oval depressions for a line hole. Possibly intended as a whaling or a walrus harpoon head.

Found among old dwellings on Arakamchechen Island. Surface find. Bought by the museum from a resident of Novoe Chaplino, L. Arat, in 1997.

Fossilized ivory: walrus tusk. 13.6 x 3.6 cm.

**Cat. # 6177**

**4.2.1.6. End blades for toggling harpoon heads.**

Most of the toggling harpoon heads in the museum collection have a slot for an end blade.

Almost all heads that are equipped with an end blade have a very narrow slot, which permits the insertion of only a thin end blade. Often the base of the slot in the front end of the head was made in the form of a broad rectangular slit, sometimes like a roundish hole, and then a thinner terminal slit was made. The inserted end blade was squeezed tightly by the ends of this slit at the front end of the head. Along the remaining length of the slit the end blade could be easily inserted or taken out.

This, or a similar technique of fastening the end blade, evolved because of the fragility of the material from which the end blade was made and was meant for easily changing end blades. The end point was set directly into the body of the point during hunting and the hunter kept spare end blades, which he changed after almost every thrust of the harpoon, in a container. Bogoras notes (1904:209): “The slate blades were rather weak and ineffectual. I was told by the older people that a fresh blade was usually placed in the whaling-harpoon after each blow, on account of the old one being spoiled.”

At the beginning of the twentieth century Bogoras describes the end blades of the harpoon heads (see Bogoras’s description on page 26-27\* of this volume).

End blades made of siliceous stone are rarely found; in time they precede ones made of slate. The working edges of end blades made of siliceous stone are worked by bifacial retouch, and the support area (lateral sides that come into contact with the edges of the slot of the front end of the head) is ground.

Slate was the primary material used for making end points up to the middle of the nineteenth century. But Karl Merck (1785-1795) mentions the use of metal end blades in his manuscript on the Chukchi. At the end of the nineteenth century iron end blades finally replace slate ones.

Ground slate end blades that have a somewhat elongated triangular form with a straight base are encountered most often. The two working edges and the surface of the end blade are carefully ground.

Another type of end blade is a triangular blade of ground slate with a coarse, uneven break of the base, a triangular flat area for fastening in the slot of the front end of a head, and a bifacially beveled working edge. This type of end blade almost copies the form of slate dart points. The chief difference between end blades and dart points is in the lack of stem.



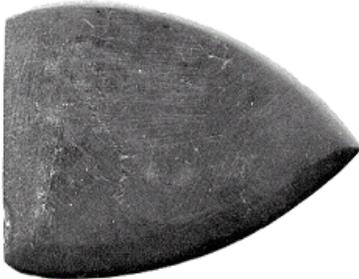
**End blade of a toggling harpoon head.**

Triangular in form with straight base; double-edged blade with small notches; surface carefully ground.

Found among early dwellings at Kivak. Surface find. Given as a gift to the museum by a resident of Provideniya, P. Cherepanov, in 1988.

Stone: slate. 3.3 x 2.3 cm.

**Cat. # 4488**



**End blade of a toggling harpoon head.**

Broad triangular form with straight base; double-edged blade with small notches; surface well ground.

Found among early dwellings at Kivak. Surface find. Given as a gift to the museum by a serviceman of the frontier post, P. Vasil'ev, in 1994.

Stone: slate. 5.4 x 4.2 cm.

**Cat. # 4778**

#### **4.2.2. Harpoon foreshaft.**

The harpoon foreshaft was intended to have the toggling head hafted onto it. Two types of foreshafts correspond to the types of sockets for the foreshaft found in the body of the toggling harpoon head (open and closed).

Foreshafts for hafting toggling heads with an open socket have a flattened front end. Foreshafts for toggling heads with a closed socket have a truncated conical front end form.

On the whole, the overwhelming majority of harpoon foreshafts are long rods of walrus tusk with a thick end—set in the head of the harpoon—and a thin front end. The foreshaft thickness most often diminishes from the back to the front end, though foreshafts are found with a uniform thickness along the whole length but pointed on the ends.

A common feature of foreshafts is a hole for attaching it by thong to the shaft head. The hole is usually narrow, of elongated form, and displaced toward the back end of the foreshaft. The holes vary in the form.

Large harpoon foreshafts without a hole form a special group, so-called “glukhie” harpoon foreshafts. These long and large foreshafts are fastened directly into the harpoon shaft. Most often they were used with whaling harpoon heads. A long harpoon foreshaft permitted harpooning a whale; the toggling head deeply penetrated the body of the animal and inflicted a severe wound. Great physical force was required to drive the large whaling head to a great depth. The fixed attachment of the harpoon shaft to the foreshaft gave the whole construction great durability and permitted harpooning of the

whale.

Some harpoon foreshafts are decorated and, as researchers of Eskimo culture note, the decoration of the foreshaft corresponds to the decoration of the toggling head and the harpoon shaft head.

Both Collins (1937) and Rudenko note that the number of harpoon foreshafts found is small in comparison with finds of toggling harpoon heads. The latter notes that “The foreshafts from the Chukchi Peninsula are homogeneous in type, and vary but little in details” (Rudenko 1972:125).

Twenty to thirty harpoon foreshafts are in the collection of archaeological materials in the Provideniya Regional Museum (the assignment of some of the items as foreshafts is dubious). The correspondence of foreshafts and toggling heads in the museum collection corroborates Rudenko’s statement about the small number of finds—there are a total of only 25 (rounded off) foreshafts to 110 (rounded off) toggling heads.



**Harpoon foreshaft.**

Of flattened-extended form, bent like an arc along the whole length; with a triangular hole for attachment of to the shaft head, displaced toward the rear end of the foreshaft; thinner front end; back end set into the harpoon shaft head, thickened with conical point.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1993.

Fossilized ivory: walrus tusk. 14.6 x 1.1 x 0.7 cm.

**Cat. # 3129**



**Harpoon foreshaft.**

Elongated rod, oval in cross section with oblong hole for attachment to the shaft head, displaced toward the rear end; ends have conical points; middle part thicker than the ends.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1993.

Fossilized ivory: antler. 13.0 x 0.7.

**Cat. # 3317**



**Harpoon foreshaft.**

Of flattened conical form with an oval hole in the center; rear end is flattened and with conical point; thinner front end with conical point.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1993.

Fossilized ivory: walrus tusk. 7.5 x 1.5 x 1.0 cm.

**Cat. # 3127**

### 4.2.3. Harpoon shaft head.

One of the components of the harpoon was the shaft head. Practically all the heads are long, thick bone rods with a pit or depression in the front end and a device for attachment at the back end. This part was attached to the front part of the shaft, and the heads differ in the manner of attachment to the shaft.

Two basic types of attachment can be distinguished:

- heads hafted onto the harpoon shaft;
- heads set into the harpoon shaft.

The museum collection of harpoon shaft heads contains several whole specimens and two fragments. These include all types of heads—with conical and bifurcated stem and wedge-shaped stem. It is difficult to determine the practical assignment of a harpoon shaft head of miniature dimensions found at the early Eskimo site of Kivak. It was probably part of a ritual or toy harpoon. The best represented type is the most recently made harpoon shaft heads—bone rods of various dimensions, simple in form and construction.

#### *Heads hafted onto the harpoon shaft.*

The rear part of a head of this type is bifurcated and was hafted to the thinner, upper part of the shaft. This attachment is the “swallow tail” type. For a more secure attachment, a dowel or thongs were used for fastening. The end parts of the head were wound round by a soaked thong of sea mammal hide, which upon drying shrunk and held the head tightly to the shaft.



#### **Harpoon shaft head (ritual).**

Stretched in form, oval in cross section; bifurcated stem in the form of a “swallow tail,” part is lost; cylindrical body with shoulders and an oval hole for attachment of the foreshaft in the central part; cylindrical and shallow socket; covered with curvilinear decoration with deep dots of Old Bering Sea type; might have served as a ritual object during the execution of a ceremony.

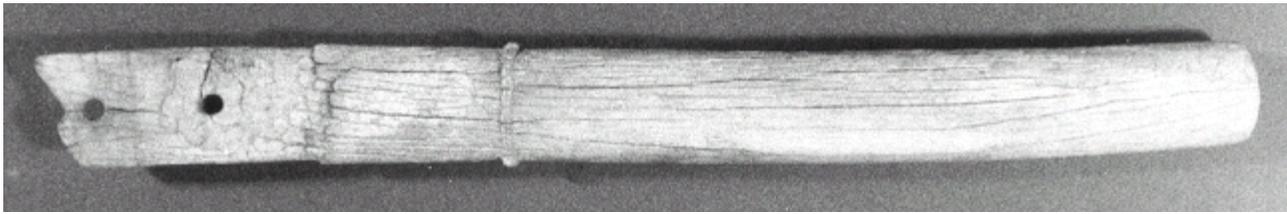
Found among early dwellings at Kivak. Surface find. Purchased for the museum from a resident of Provideniya, A. Pozganov, in 1996.

Fossilized ivory; walrus tusk: carving in bone. 8.4 x 1.4 cm.

**Cat. # 6056**

#### *Heads, set onto the harpoon shaft.*

The second type of shaft head has a conical or wedge-shaped base. Heads of this type were set in the slot in the front part of the harpoon shaft. The bone head could be attached to the shaft in various ways, but a thong binding was obligatory in all cases. Some heads have holes in the wedge-shaped or conical rear end for fastening by a thong or dowel, but the thong played a more important role by attaching through a hole in the body of the shaft head.



#### **Harpoon shaft head.**

Extended cylindrical form; body slightly bent; stem hewn into a wedge shape for setting into the shaft; two holes for fastening to the shaft with the aid of dowels; closer to the stem, a rim with two lugs for attaching a tie; nearer the socket, a lug for tying up the foreshaft; conical socket with a slit along the rim.

Found among early dwellings at Kivak. Surface find. Given to the museum as a gift by a serviceman of the frontier post, P. Vasilev, in 1994.

Ivory: walrus tusk. 29.4 x 2.9 x 2.4 cm.

**Cat. # 4800**



#### **Harpoon shaft head.**

Elongated cylindrical in form; stem conical and pointed with shoulders; one perforating and one non-perforating hole for attachment to the shaft with dowels; a lug; and nearer the shoulders, a perforating hole for attachment by a thong that holds the shaft where it is hafted to the stem; body of the shaft head bent inward in the middle; conical socket for the foreshaft

Found among early dwellings at a site on Arakamchechen Island. Surface find.

Fossilized ivory: walrus tusk. 18.3 x 2.9 cm.

**Cat. # 6414**

Shaft heads were carved from walrus tusk. Old Bering Sea heads were decorated, some of them representing true art. Shaft heads of later periods were denied “excesses” in the form of decoration and are only smooth bone rods, simpler in construction. The features of harpoon shaft heads are also a dating element for Eskimo culture. Collins (1937) points out that harpoon shaft heads with a conical or bifurcated stem belong to the earliest stages of development of Eskimo culture. Heads with a wedge-shaped stem or a cut on one side replaced them.

This detail of the harpoon still existed at the beginning of the twentieth century. In 1901 Bogoras found harpoons with shaft heads of walrus tusk. In later times shaft heads were replaced by metal bindings—metal rings fastened to the end of the shaft. This use of metal is connected exclusively to the use of metal in the preparation of toggling harpoon heads and their end blades. A massive, heavy bone head combined with a slate end blade provided additional force. The pointed metal blade easily cut through the thick skin of the sea mammal, and thus the necessity for a heavy head disappeared.

#### **4.2.4. Harpoon finger support.**

“The shaft of the long harpoon sometimes has a small wooden or bone peg, halfway of its length, to allow a firmer grasp of the hand in throwing the weapon” (Bogoras 1904:118). Bogoras describes in

this way another component of the harpoon—the harpoon finger support. The museum collection contains only two of these objects, one of which is without any doubt a harpoon support, while the other is probably a blank of a harpoon support. It is possible that this component of the harpoon is generally rare. Rudenko found no finger supports in early Eskimo sites. During excavations two supports were found—at Nunligran and Naukan—which “are characteristic of Punuk and protohistoric times” (Rudenko 1972:125).



**Harpoon finger support.**

Triangular in form with a platform on the base and an oval hole in the body for attaching the support to the harpoon shaft by means of strap or binding.

Found presumably in Sireniki. Surface find. Given to the museum by the “Provideniya Bay” customs house in 1994.

Fossilized ivory: walrus tusk. 2.7 x 2.0 x 1.9 cm.

**Cat. # 4834**

#### **4.2.5. Harpoon ice pick.**

The ice pick is a part of the harpoon fully equipped for winter hunting. The appearance in harpoon equipment of an ice pick is connected with the natural features of the coast of the Chukchi Peninsula and the annual economic cycle of the coastal residents. Beginning in November-December and on through June the hunters procure sea mammals on the ice—at patches of ice-free water, at breathing holes, and at the edge of the ice.

For winter hunting the end of the harpoon shaft was usually equipped with a pick, and therefore was called the harpoon pick. The pointed end of the pick was intended for sounding the ice, and it created additional support for the hunter when walking and struggling with a harpooned animal. For hunting walrus in winter hunters first tried to harpoon the animals, then to kill them with gun shots or with a spear. The harpooned animal tried to pull itself loose, and the harpoon, thrust into the ice with the aid of the pick, gave additional support. The second name of the harpoon pick—ice pick—came out of its assignment.

The harpoon ice pick is a widely distributed artifact, found in numerous specimens from excavations of practically all sites on the coast of the Chukchi Peninsula and all their cultural layers, beginning with Old Bering Sea and coming up to historical times.

The ice pick can be divided into several parts. The upper part is the stem. The middle part of the pick is the body, usually its thickest part. The lower pointed part is the working end. Ice picks found at sites on the Chukchi Peninsula can be divided into three basic types with numerous variants.

1. Small (average size more than 10 cm) spindle-shaped picks, usually made of the forward end of the tusk of a young walrus, ellipsoid in cross section, with smooth surface, and without holes. The stem is conically pointed and usually covered with deep transverse notches, and the working end is pointed (conical or wedge-shaped) or blunted from wear. The method of attachment to the harpoon shaft: the conically pointed stem is seated in the back end of the shaft and, to make it more durable, reinforced with a thong. Ice picks of such type are the earliest and date to the Old Bering Sea-Punuk period—second millennium B.C. to the sixteenth century A.D.

2. Transitional type—from a smooth, spindle-shaped pick, seated in the back end of the harpoon shaft, to the pick with a steep, projecting shoulder and a flat side obtained by cutting off some of the upper half of the pick and attaching it by placing the pick’s flat side to the shaft. The pick is spindle-shaped, but the stem is separated from the body of the pick by a somewhat projecting shoulder. The stem is covered with notches. There are usually no holes.

3. This type of pick is attached to the harpoon shaft. On the upper part of the pick is a cut to half the thickness of the body of the pick, which forms a steep, pronounced shoulder. Very often the outside of the upper part was covered with transverse notches for better coupling of the body of the pick with a thong, by which it was connected to the shaft. Besides the thong attachment, fastening was practiced with the aid of rivets through holes bored in the upper part of the pick, as well as thin thongs through holes in the body of the pick. A material frequently used was the baculum (usiq) of a walrus. Picks attain substantial dimensions—to 30 cm or more. Ice picks of such type are dated from the proto-historic to modern times—seventeenth to twentieth centuries.

Numerous harpoon ice picks are found in the materials from Rudenko's archaeological excavations of 1945. As Rudenko notes, the first type "is characteristic of the older sites, such as the older Uwelen site, Kiwak, the western sector of the cultural deposit at Sirhenik and the eastern settlement in Nunligran. This same type has been found in the Old Bering Sea complex on St. Lawrence Island and at the Okvik site in the Penuk Islands. In the general features, they are similar to the ice picks of the Thule type in the Central Eskimo area of America" (Rudenko 1972:125-126).



**Harpoon ice pick.**

Spindle-shaped ellipsoid in cross section; stem conically pointed and covered with continuous transverse notches for seating in the shaft; working end conically pointed.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen, V. Ankarol'tin, in 1991.

Fossilized ivory; walrus tusk. 14.5 x 1.9 cm.

**Cat. # 3159**



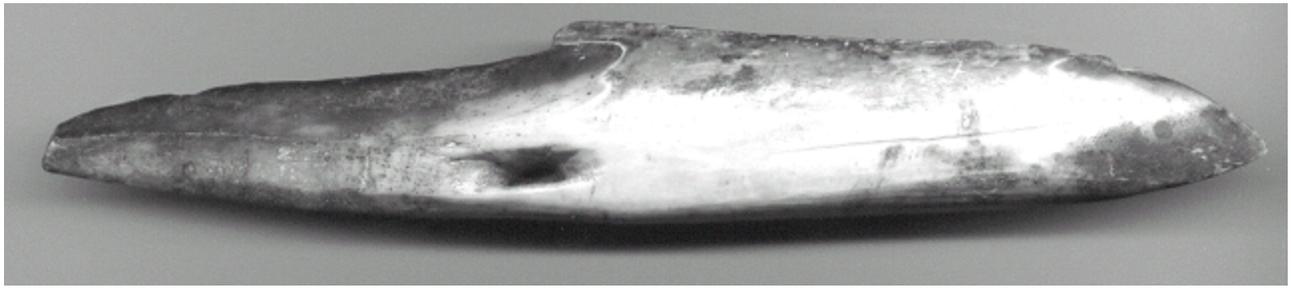
**Harpoon ice pick.**

Ellipsoid in cross section; stem sharpened to a wedge shape with bilateral notches for hafting to the shaft; body separated from the stem by shoulders; working part sharpened to a wedge shape in the plane opposite the stem.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1993.

Fossilized ivory; walrus tusk. 11.0 x 2.2 cm.

**Cat. # 3281**



#### **Harpoon ice pick.**

Of elongated form and oval in cross section; upper part has a cut to half the thickness of the pick, which forms a platform, and a projecting shoulder for applying and fastening to the shaft; on the opposite side of the shoulder, a lug for attachment of a stem's thong; working part conically pointed.

Found among early dwellings at Chechen. Surface find. Purchased for the museum from a resident of Novoe Chaplino, A. Kutulin, in 1998.

Fossilized ivory; walrus tusk. 17.1 x 2.7 cm.

**Cat. # 7032**

#### **4.2.6. Float stopper mouthpieces and fasteners.**

The float is an indispensable item in hunting sea mammals with a harpoon. Floats are made from the whole skins of seals, taken off like a stocking, for the heavy harpoons used in hunting walruses and whales. Light floats of treated seal gut were used for light, sealing harpoons.

Stoppers are set in the openings of the skin float. They are solid or have a hole that is closed by a plug.

The last are called float stopper mouthpieces (Rudenko 1947, 1972). They were set in the throat of the seal-skin float and were intended for inflating the float. The stopper mouthpieces were equipped with a special bone or wooden plug. There are two types of stoppers:

- flat, oval wooden plugs with a central hole and surrounding groove;
- oblong bone stopper mouthpieces with a central hole and an uneven outer surface (with transverse ridges, grooves, and so on for better attachment to the float)—the opening.

In spite of the small number of objects of this kind, both types of stopper mouthpieces are represented in the museum collection.



#### **Stopper mouthpiece.**

Flat, oval with round central hole or opening and a deep surrounding groove for fastening the stopper in the float by means of a thong.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1985.

Wood. 5.0 cm.

**Cat. # 158**



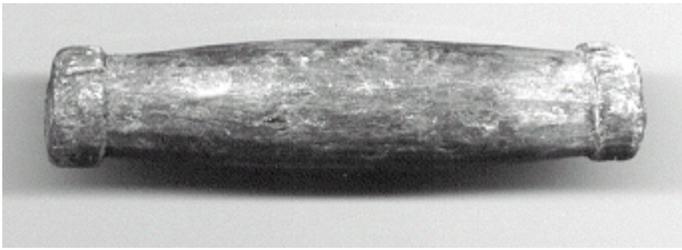
#### **Stopper mouthpiece.**

Cylindrical in form, oblong in cross section, with a hole through the center and wavy body surface (ridges and grooves) for better attachment to the float.

Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Sireniki, L. Fed'ko, in 1991.

Fossilized ivory; walrus tooth. 3.0 x 1.5 cm.

**Cat. # 2821**

**Float fastener.**

Of stretched cylindrical form with the ends raised, thicker in the middle of the body than on the ends.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1993.

Wood. 7.0 x 1.4 cm.

**Cat. # 3258**

Special plugs closed up natural holes or cuts from wounds in a seal skin, which was intended as a float. As researchers note (Nelson 1899; Rudenko 1947), such plugs could be either of wood, like float mouthpieces but without a central hole, or of walrus tusk. They were usually flattened, rounded objects with a thin surrounding groove. The stoppers had to be larger in diameter than the hole in the skin and had to fit into it tightly.

#### 4.2.7. *Points of whaling spears.*

**Walrus point.**

Of elongated form; working end triangular in cross section; body oval in cross section; stem ellipsoid in cross section with continuous longitudinal notches for seating it in the shaft; could be used for striking a walrus.

Found among early dwellings at Kivak. Surface find. Given as a gift to the museum by a resident of Provideniya, P. Cherepanov, in 1988.

Bone: walrus baculum. 27.1 x 3.0 cm.

**Cat. # 4459**

**Whaling point.**

Of triangular form with straight base and bilateral edges that have facets and small notches; three holes: one at the base and two parallel ones in the middle, which were used for fastening to a shaft; well-ground surface.

Found among early dwellings at Vankarem. Surface find. Given as a gift to the museum by a resident of Provideniya, A. Memel', in 1996.

Stone: slate. 7.4 x 4.2 cm.

**Cat. # 6104**

#### 4.2.8. *Seal scrapers.*



**Seal scrapers.**

Extended, oval in cross section; on the end, two “claws,” the third damaged and lost; on the sole, a lug for tying a thong; on the butt end, crude facets; used by hunters for scratching on the ice and imitating a seal.

Found among old dwellings at Enmelen. Surface find. Given to the museum by the Regional Pioneers Home in 1985.

Wood: carving on wood. 13.7 x 3.5 cm.

**Cat. # 4317**

**4.2.9. Pin and plugs for wounds.****Pin.**

Of extended form; body oval in cross section; pointed ends sharpened; a heel in the form of an oval nail head; a depression in the middle. Found among early dwellings at Sireniki. Surface find. Given to the museum by V. Bychkov in 1993.

Fossilized ivory: walrus tusk. 5.0 x 1.5 cm.

**Cat. # 4116**

**Pin.**

In the form of a long nail; body oval in cross section; point sharpened to a flattened wedge shape; heel ovally rounded. Found among early dwellings in Sireniki. Surface find. Given as a gift to the museum by a resident of Provideniya, A. Razganov, in 1996.

Fossilized ivory: walrus tusk. 10.3 x 0.8 cm.

**Cat. # 6062**

**Plug for a wound.**

Of triangular form; body oval in cross section, with straight base and conically pointed end; near the end a hole through for fastening a binding.

Found among old dwellings at Kivak. Surface find. Registered as a result of collections by an expedition of the Provideniya Regional Museum in 1997.

Wood. 9.3 x 2.9 cm.

**Cat. # 6271**

**4.3. Winged objects—stabilizers.****Winged object (harpoon stabilizer).**

Made like a butterfly with one preserved “wing”; middle part triangular in form with a depression in the butt end for a spear thrower and trapeziform socket for hafting the harpoon shaft; second “wing” broken along the edge of two piercing and one non-piercing hole; at base of the “wings” two piercing holes that come together beneath the depression for the spear thrower; surface covered with curvilinear design with dots and insets of baleen in Old Bering

Sea style; could have been used as a counterweight and stabilizer in the harpoon complex.

Found presumably among early semi-subterranean dwellings in Sireniki. Surface find. Given to the museum by the Provideniya Bay customs house.

Fossilized ivory: walrus tusk: carving on bone. 13.0 x 5.0 x 2.5 cm.

**Cat. # 4830**



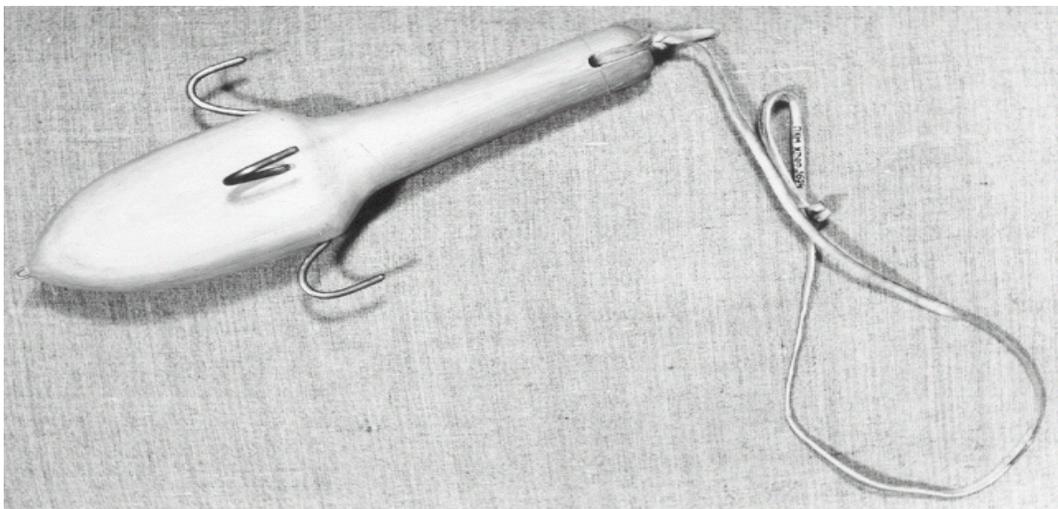
#### **4.4. Harpoon complex (reconstruction).**

Sireniki village, 1995. By master craftsman Petr Tipykhkak.



#### **4.5. Grappling hook.**

A tool for retrieving prey from the water (reconstruction). Sireniki village, 1995. By master craftsman Petr Tipykhkak.



## 5. Equipment for Hunting Land Mammals and Birds.

### 5.1. Darts and spears.

The main land animal hunted in Chukotka up to the twentieth century was the reindeer.

Of land-game, the wild reindeer is the most important. It is nevertheless not so abundant in northeastern Asia as the caribou in America, because the best pastures are occupied by domesticated herds. Only the depths of the forests and the higher slopes of the mountains are left quite undisturbed for the wild breed, because they are unsuitable for the breeding of domesticated animals. Wild reindeer, however, are met everywhere in northeastern Asia, in single heads or in small herds.

The wild reindeer is larger than any of the domesticated varieties. Its step is wider, and its footprint longer, because its hoof-joints are more supple. Its antlers are more or less similar to those of the Lamut reindeer, but generally the ends are bent up in a hook-like shape. Also the difference in size of the antlers between the buck and the doe is still more marked than with Lamut reindeer (Bogoras 1904:132).

Reindeer were usually taken in the water at river crossings during annual migrations. They always migrated along the same route and crossed the river in the same place.

This eased the hunters' task of preparing the reindeer meat. "According to ancient Yukaghir custom, hunting was strictly forbidden on land, and allowed only on the river" (Bogoras 1904:133).

In boats the hunters joined in large artels and killed the river-crossing reindeer with spears, arrows, and a special double-bladed paddle with a small iron spear on one end. Downstream the women and children dragged out the carcasses and butchered them.

In the early and traditional settlements on the Chukchi Peninsula stone and bone points, as well as a variety of blades, are encountered often among finds.

By no means in all cases is it possible to decide the purpose for which a given point or blade was intended. . . . A small point may be that of an arrow; a large one of the same type may be the point of a dart if the shaft is light, or of a spear, if it is heavy. Points of the classes enumerated above may also serve as knives. It is easier to determine the purpose of such implements if a shaft or a handle is present (Rudenko 1972:128).

The archaeological collection of the museum has both stone and bone spear and dart points.

Stone points were made from slate and siliceous tuff by grinding and pressure retouch. Such points were found in the early sites of Sireniki, Enmelen, Singak, Nunligran, and others.



#### **Spear point.**

Pointed, elongated, with well ground bifacial edges; has a stem for hafting on the shaft.

Found in the vicinity of early semi-subterranean dwellings in the Eskimo settlement of Sireniki.

Surface find. Given to the museum by the Sireniki Village Cultural Center.

Stone: slate. 9.2 x 3.5 cm.

**Dart point.**

Pointed, of average dimensions; lateral edges worked by pressure retouch; small stem for hafting on a shaft.

Found at the old Eskimo site of Singak. Surface find. Given to the museum by a resident of Provideniya, A. Kanunnikov, in 1997. Stone. 5.5 x 2.5 cm.

**Cat. # 6255**

In the museum collection, along with small and medium stone points, are large, coarsely worked slate points. It is evidently possible to designate them as spear points, used for hunting bears or reindeer.

**Spear point.**

Large, pointed, with missing stem, coarsely worked through surface flaking.

Found in the vicinity of early semi-subterranean dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

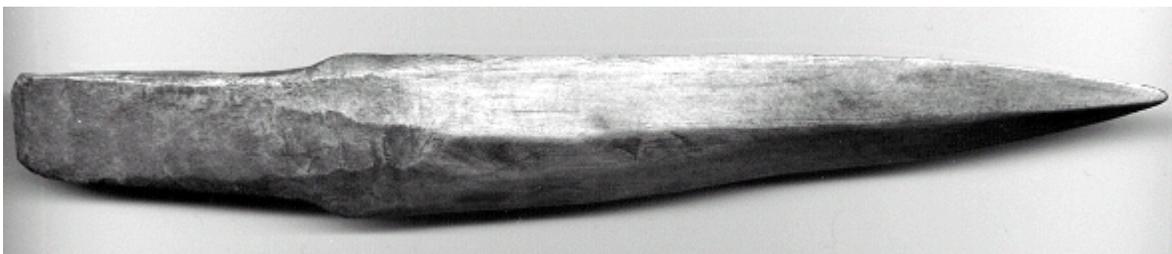
Stone: slate. 14.5 x 8.0 cm.

**Cat. # 37**

Bone spear and dart points are often found in the early and traditional sites. In the museum collection bone points are of different form and assignment.

Not all the artifacts can be easily assigned to spear and dart points, and especially to points of bird throwing darts.

Is it possible to assign finds from the village of Sireniki to bone points.



**Spear point.**

Narrow, flat, and pointed, three-edged with stem for hafting in a shaft; working edges well sharpened. Found among early dwellings at Sireniki. Surface find. Given to the museum by G. Kanikhina (Nanulik) in 1997. Bone: antler. 20.7 x 3.0 cm.

Cat. # 6372

It is possible to designate as dart points finds from the settlements of Sireniki, Arakamchechen Island, Avan, Enmelen, Naukan, Unazik, and Chechen.

**Dart point.**

Pointed, elongated, with ground lateral edges and bifacially rough-hewn stem for insertion into the shaft. Found among early sites on Arakamchechen Island. Surface find. Given to the museum by a resident of Provideniya, N. Mymrin, in 1985. Porous bone. 19.6 x 1.0 cm.

Cat. # 4248-1

Prongs of throwing darts used for hunting birds, which were found among semi-subterranean dwellings at the settlements of Singak, Sireniki, and Kivak, are represented in the museum collection.

**Prong of a bird dart.**

Narrow, elongated, with seven asymmetrically placed lateral barbs and a pointed stem. Found in the early settlement of Sireniki. Surface find. Purchased for the museum in 1996 from a resident of Provideniya, A. Rozganov. Ivory: walrus tusk. 8.0 x 0.7 cm.

Cat. # 6067

**5.2. Throwing boards.**

The Eskimos and Aleuts used a special device—a throwing board—for throwing darts and light harpoons.

During an examination of the coast of the Chukchi Peninsula in 1946 Rudenko found a decorated bone dart or harpoon throwing board at the Sekliuk site and a wooden one at Sireniki village.

Similar implements have been found on St. Lawrence Island.

The dart or harpoon throwing board is an early invention of Eskimo culture, an artifact of the Old Bering Sea period found at many excavations. Unfortunately, the museum has no throwing boards of such type.

**5.3. Bow, wrist guard, tightener.**

In former times it was the favorite weapon of the Chukchee. . . . The epic tales are full of descriptions of shooting-bouts and contests. Ability to split a blade of grass

with the point of an arrow was proof of the greatest skill of the archer (Bogoras 1904:151-152).

Rudenko, in conducting excavations of early Eskimo sites, also found the remains of the components of reinforced compound bows.

It is possible to distinguish two kinds of bows. One—simple, from a single piece of wood. The other—complex, of several pieces of wood with insets of bone or baleen, reinforced by a binding of sinew or fibers of baleen.

A bow could be used for hunting wolves, reindeer, and foxes, as well as during local “wars.”

The museum collection contains a simple bow of a single piece of wood, entered into the museum from Yanrakynnot.



**Bow.**

Long, narrow, thickened in the middle. One end bent, the other damaged and lost.

Found at the old camp of Voyvyn. Surface find. Purchased in 1998 from a resident of Yanrakynnot, Yu. Konko.

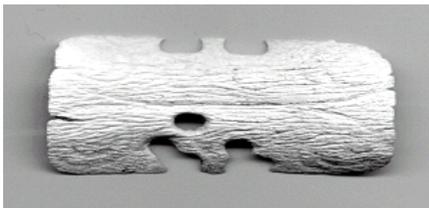
Wood. 114.8 x 4.9 cm.

**Cat. # 6460**

Special bone wrist guards were used to protect archers’ wrists from damage by the brushing of the string when shooting the bow.

In the museum collection the majority of such wrist guards are from the settlement of Sireniki. They differ in size, form, and decorative features. All the wrist guards were made in the form of a slightly or significantly concave, thin plate, and have along the edges one or two symmetrical pairs of oval holes for fastening to the wrist with thongs.

Of special interest are decorated plates for wrist bands from the Avan and Sireniki sites.



**Wrist guard.**

Thin, oval, with two pairs of symmetrical oval holes along the edges and a hole through the middle; upper, decorated layer and edges of the plate partially destroyed.

Found in the old settlement of Avan. Surface find. Given to the museum by a service man of the border patrol, P. Vasil’ev, in 1990.

Ivory: walrus tusk: carving on ivory. 5.2 x 2.7 cm.

**Cat. # 2710**



**Wrist guard.**

Thin, elongated, slightly concave, with one pair of symmetrical oval holes in the middle and decoration on the obverse

side; upper layer of enamel partially damaged.

Found among early semi-subterranean dwellings of Sireniki. Surface find. Given by the Sireniki Village Cultural Center. Ivory: walrus tusk: carving on ivory. 11.1 x 2.2 cm.

**Cat. # 3179**

The stretched bowstring required special devices, such as a tightener made in the form of a bone piece with asymmetrically bent ends.

In the museum collection such tighteners are from the early and traditional sites of Kivak and Sireniki.



**Tightener for a bow.**

Narrow, oval in cross section, with asymmetrically bent ends.

Found at the early site of Sireniki. Surface find. Purchased by the museum from a resident of Sireniki, G. Kanikhina (Nanulik), in 1997.

Ivory: walrus tusk. 11.1 x 1.2 cm.

**Cat. # 6371**

**5.4. Arrows.**

Among the numerous finds of arrow points in early and traditional sites, arrows with a shaft are rarely found and are usually fragments or already decayed parts of the wooden shaft.

In the collection of the Provideniya Museum not one arrow with a shaft is preserved. However, arrowheads are broadly represented in form, time of preparation, material, and functional assignment. This catalog makes a typological division of all the points that is based on earlier published materials by Collins and Rudenko.

*1. Old Bering Sea type of arrow.* With conical stem, two pointed barbs pressed to the body at the stem, with a slot for the end point. These are usually made of bone or antler. Such points were found at the sites at Sireniki and Arakamchechen Island.

On these points, of special note is decoration in the form of oblique incised lines.



**Arrowhead.**

Stretched, with conical stem, two barbs pressed to the body and a slit for an end point; equipped with a stone end point worked by pressure retouch.

Found among early semi-subterranean dwellings at Sireniki. Surface find. Purchased from a resident of Provideniya, A. Rozganov, in 1996.

Bone: antler. 14.0 x 1.6 cm.

**Cat. # 6065**

2. *Early type.* Round with conical base, slot for end point and with split stem. Such points in the museum collection are from the sites of Kivak, Sireniki, and Enmelen.



**Arrowhead.**

Oval in cross section, with slot for end point and split stem; two lateral oval, holes through it, probably for fastening by a thong, which ties the stem to the shaft.

Found at the early Sireniki site. Surface find. Given by the Sireniki Village Cultural Center.

Bone. 10.2 x 1.7 cm.

**Cat. # 3287**

3. *Bone points of the late stage.* Early Punuk. Flat and short points with two symmetrical barbs and flattened with one or two barbs and conical stem with shoulders. Such points were found at the sites of Singak, Sireniki, and Enmelen.



**Arrowhead.**

Flat, short, with two symmetrical barbs.

Found at Singak. Surface find. Given to the museum by a resident of Provideniya, A. Kanunnikov, in 1997.

Bone. 4.3 x 0.9 cm.

**Cat. # 6251**



**Arrowhead.**

Flattened, with two lateral barbs and conical stem with shoulders.

Found at the early Sireniki site. Surface find. Given to the museum by a resident of Provideniya, A. Rozganov, in 1996.

Bone: antler. 11.9 x 1.9 cm.

**Cat. # 6102**

Late Punuk. Points with one or two barbs, conical stem with lug, round or triangular in cross section.

Such points in the museum collection are from the sites of Avan, Vankarem, Sireniki, and Enmelen.



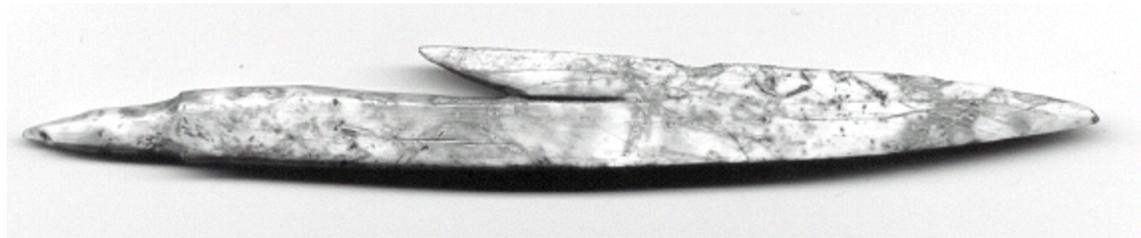
**Arrowhead.**

Elongated, with two symmetrical barbs, body oval in cross section, conical stem with lug.

Found at the old site of Avan. Surface find. Given to the museum by a resident of Provideniya, N. Birtsev, in 1989.

Bone: antler. 17.8 x 1.5 cm.

Cat. # 2658



**Arrowhead.**

Elongated, with one lateral barb, conical stem, and body triangular in cross section.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen village, Yu. ETTYEGIN.

Ivory: walrus tusk. 14.5 x 1.6 cm.

Cat. # 4767

4. *Proto-historic, near historic times.* Round with two or more lateral pointed barbs, conical stem, and a slot in the end for a stone point. The only point of such type was found at the early site of Sireniki.



**Arrowhead.**

Oval in cross section, with three lateral barbs and a slot for an end point.

Found at the early site of Sireniki. Surface find. Given to the museum by V. Bychkov in 1991.

Bone: antler. 7.8 x 1.1 cm.

Cat. # 3725

5. *Blunt points.* For hunting birds or more likely small fur-bearing animals, points with a blunted end were used in order not to ruin the skin of the small fur-bearing animal.

Such points in the museum collection are from the sites of Kivak and Sireniki.

Those with a thickened, blunted front end and forked stem are represented by:

**Arrowhead.**

Oval in cross section, with blunted end and bifurcated stem for hafting to a shaft.

Found at the early site of Sireniki. Surface find. Given by the Sireniki Village Cultural Center.

Bone: antler. 9.1 x 1.6 x 1.3 cm.

**Cat. # 3184**

Those with a blunted front end and a socket for hafting to a shaft are represented by:

**Arrowhead.**

Oval in cross section, with blunted end, socket for hafting to a shaft and lateral hole of small diameter through it for attachment by a binding to a shaft.

Found at the early site of Sireniki. Surface find. Given by the Sireniki Village Cultural Center in 1985.

Ivory: walrus tusk. 4.0 x 2.0 cm.

**Cat. # 48**

**5.5. Bird bola weights.**

Both Alaskan and Chukotkan Natives, up to the beginning of the twentieth century, used the bola to take waterfowl.

The device consists of several (4 to 10) cords or thongs (60 cm-70 cm in length), tied together at one end. The free end of each cord is tied to a bone weight. The device is thrown into a flock of birds as they pass overhead. In flight, the weights spread in a circle, the radius of which is formed by the cords, while the center is the point at which they are tied together. When the device comes in contact with a bird, the balls, acting as bola balls, became entangled around it and it falls to the ground (Rudenko 1972:133).

The forms of such weights differ from spherical and teardrop to almost rectangular. They were made of unworked walrus teeth, with a hole made in the root, and small scraps of walrus tusk and whale bone.

Such bola weights in the museum collection are from the early and traditional sites of Kivak, Sireniki, Singak, Uniyramkyt, and Chechen.

**Bird bola weight.**

Unworked walrus tooth, with a round hole through the root for attachment of the cord.

Found among early pithouses at Kivak. Surface find. Given to the museum by I. Zagrebin in 1995.

Ivory: walrus tusk. 5.0 x 2.2 cm.

**Cat. # 5273**

**Bird bola weight.**

Rectangular-oval, scrap of small tusk, with an eye in the upper part.

Found at the old site of Chechen. Surface find. Purchased for the museum from a hunter at Novoe Chaplino, A. Kutylin, in 1998.

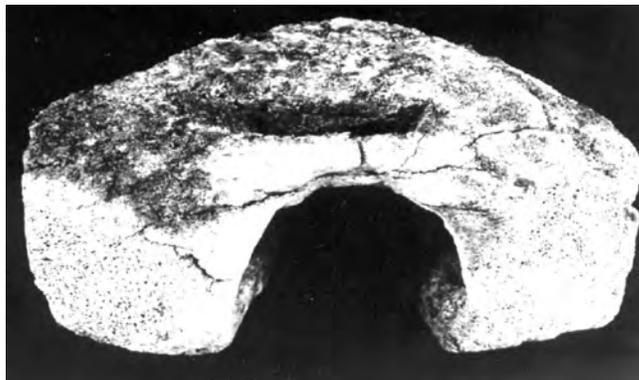
Ivory: walrus tusk. 3.8 x 3.2 cm.

**Cat. # 7034**

**5.6. Traps and snares.**

From the works of Bogoras, Murdoch, and Nelson, as well as from other ethnographic literature, we know that the Eskimos and Chukchi widely used a variety of deadfalls, snares, and traps. Such traps were set for foxes, Arctic foxes, hares, wolverines, wolves, and even geese and swans. These could be special traps of a cord of sinew, a trap made of wooden poles—adopted from the Russians, traps in the form of a depression in the ground and heavy pieces of tree trunks loaded over it, and various snares and nooses, as well as metal traps that appeared later.

In the museum collection are a few small strips of baleen, but it cannot be said with complete certainty that these were parts of snares. In the museum collection only one large component of whale bone from the site of Rudder is similar to the chamber of the special trap with a sinew cord.

**Component of a trap.**

Cylindrical, with hole piercing the whole length; oblong hollowed-out hole in the top; on the butt end, traces for the attachment of four more parts.

Found at the old site of Rudder. Surface find. Given to the museum by a resident of Provideniya, A. Kanunnikov, in 1998. Whale bone. 23.6 x 16.4 cm.

**Cat. # 7044**

**5.7. Snow goggles.**

In spring in Chukotka the sun's rays reflect strongly off the snow cover. Thus, both the Eskimos and Chukchi used special snow goggles, made of wood, leather, and more rarely of bone. The earliest goggles, judging by the results of excavations, are of bone with ornamentation.

The narrow slit for the eyes, which was made in such goggles, protected the hunter's pupils from the direct rays of the sun, as well as those reflected from the snow.

A fragment of such wooden snow goggles is in the museum collection. It was found in the vicinity of the old settlement of Enmelen.

**Snow goggles.**

Stretched, ovoidly concave, with one narrow slit for the eye preserved and depressions along the edge for the nose; part of the second slit damaged and lost.

Found in the vicinity of the old site of Enmelen. Surface find. Given to the museum by a resident of Enmelen, A. Tareev.

Wood. 11.2 x 2.8 x 1.5 cm.

**Cat. # 2777**

## 6. Fishing Equipment.

In spite of the fact that the coastal inhabitants of the Chukchi Peninsula can with good reason be called a “walrus” or “whaling” people, fishing was significant among their traditional uses of nature. With a predominantly meat diet (the meat and oil of sea mammals comprised 85% to 90% of the total food ration of the Eskimos and Coastal Chukchi) fish was second in significance, though it comprised only 2% to 6% of the nutritional ration.

The significance of fish in the diet of the coastal residents increased in the summer and winter seasons of the economic year. The seasonality of procuring fish and features of the tools for catching them are connected with the biological features of the fish that live along the shores of the Chukchi Peninsula. In summer, salmon came to the shores of the peninsula: chum, humpback, sockeye, coho, and king salmon, as well as char. The fish spawned in the numerous streams and lagoons and were caught in the shallow water or at the shore. In winter different kinds of cod were available.

For catching the different kinds of fish, the coastal residents made special fishing equipment. The numerous finds of fishing equipment in the early and traditional sites of the coastal residents illustrate the development of fishing. In the archaeological and ethnographic collections of the museum no fewer than 120 tools and objects are connected with fishing.

The following equipment was used to catch salmon and char:

- fishnets;
- multi-tined leisters (fish spears).

### 6.1. Fishing harpoons of various types. Fishnets.

In the monograph *The Chukchi*, volume 1, in the chapter dedicated to hunting and fishing, Bogoras describes the use of the fishnet in this way:

Fish-nets of sinew are used everywhere by the Reindeer and Maritime Chukchee. . . . The length of [large net of Pacific fishermen] varies from fifteen to twenty-five feet; the meshes are from two to four inches square. Other nets are made of thin strips of leather, and in former times they were made also of whalebone. . . . Large pebbles were used as sinkers. They are strung on loops of thin leather, and, having no notch, easily fall off. Pieces of bone or of walrus-ivory, with a strip of leather fastened through a hole on the upper edge are also used for the purpose.

Floats are made of wood, or of pieces of sea-intestines inflated with air and carefully tied up (Bogoras 1904:146-148).

Bogoras also describes the technique of catching with a net:

The Maritime Chukchee push their nets into the sea by means of a long pole make up of two or three pieces joined together. A large stone is fastened to the water end of the net with a strong piece of leather. The shore end is tied to some stones or to a stake. These nets are used on the Pacific . . . [and] on the Arctic [Ocean] (Bogoras 1904:148).

It is interesting to note that nets are used in precisely the same way now – with the aid of a *tolkach* (pusher) – a compound pole up to 10 m long.

From the information of early researchers on the material culture of the coastal inhabitants of the

Chukchi Peninsula and from finds at village sites, observations can be made about the fishnets, as well as about other objects and tools of the Eskimos and Chukchi. Fishnets and objects connected with catching fish in nets include:

- the net gauge and the needle or shuttle for weaving the net;
- the net of baleen and stone or bone sinkers for catching fish.

### 6.1.1. Needle for mending the net. Fishnets.

Whole nets, which belong to the early stages of development of the Northern Maritime Tradition, have probably not been preserved. They were made of strips of baleen from bowhead whales, not a very durable line. Most often only pieces of nets made of baleen can be found in the sites.



#### **Fragment of a net of baleen for catching salmon.**

Net of fine baleen from a bowhead whale. Dimensions of the meshes: 20 x 20 mm. A strip of baleen with loops tied at both ends passes through the mesh. Difficult to date for lack of additional information. Bogoras did not find any fishnets of baleen on the southeastern Chukchi Peninsula in 1901. Edward Nelson, who visited Provideniya Bay in 1881 on the customs ship *Thomas Corwin* (USA), noted the presence of fishnets made of sinew.

Surface find – a fragment of a net found in 1989 among shoreline dwellings of the early Eskimo site of Avan.

Baleen. 120.0 x 20.0 cm.

Cat. # 2825

### 6.1.2. Fishnet sinkers.

All nets were equipped with sinkers of various types. Large, heavy sinkers are often found in sites. Most often pieces of walrus tusk with two holes drilled in the upper part were used as net sinkers. Sinkers are flat, but also broad and of large dimensions, as well as with two holes. This type of sinker has

been found not only on the Chukchi Peninsula but also on St. Lawrence Island. Net sinkers with one hole are rarely found.

Keeping the fishnet in place, sinkers were suspended at both holes and were arranged along the length of the lower edge of the net. Along the upper edge of the net floats of wood or inflated seal gut were attached. The net, with the aid of the floats and sinkers, stood perpendicular to the bottom of the sea in the path of fish movement along the shore.

In the museum collection there are both types of fishnet sinkers.



**Fishnet sinker.**

Large (diameter: 0.7 cm), flat, rectangular sinker with two holes through both sides of the upper part; holes are conical with round depressions around them; edges are smooth, rolled by the sea. Probably dates to the Old Bering Sea period (third-fourth to fifth-sixth centuries A.D.).

Found at a semi-subterranean dwelling in the Old Eskimo site of Kivak in 1997 during the PC-97 Expedition of the museum.

Bone: walrus jaw. 15.9 x 6.2 cm.

**Cat. # 6261**



**Fishnet sinker.**

Long, oblong sinker, oval in cross section; small lugs carved on the ends of the sinker through which small (diameter: 0.4 to 0.5 cm) holes were bored; holes situated in the same plane.

Found in the vicinity of early semi-subterranean dwellings of the Eskimo village of Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Piece of the front end of a walrus tusk: fossilized ivory. 15.2 x 3.3 cm.

**Cat. # 3250**

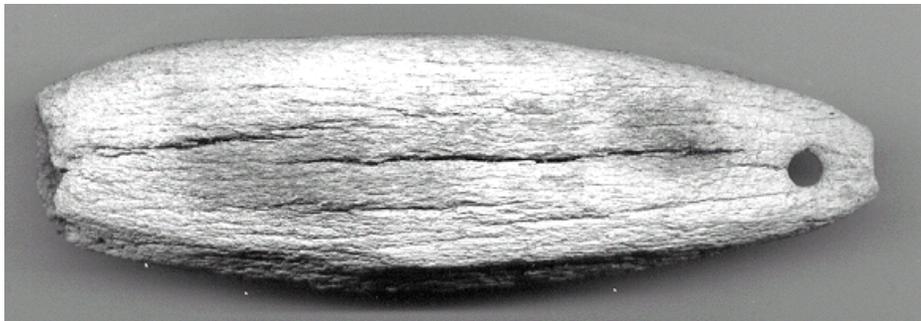
**Fishnet sinker.**

Flat, long, rectangular sinker with two large (diameter: 1.5 cm) holes through the upper part of the object, located on both sides; edges of sinker are smooth, rolled in the sea.

Found in the vicinity of early semi-subterranean dwellings of the Eskimo site of Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

A spall of the upper layer of walrus tusk: fossilized ivory. 17.6 x 4.5 cm.

**Cat. # 3261**

**Fishnet sinker.**

Elongated oval; sinker substantially thickened, rounded in cross section; in the thin, wedge-shaped, rough-hewn end of the sinker a small (diameter: 0.5 cm) hole drilled through.

Found at the early and traditional Eskimo site of Avan in 1990.

Given to the museum.

Fragment of porous bone. 13.1 x 3.8 x 3.4 cm.

**Cat. # 2677**

**Fishnet sinker.**

Short, broad sinker; oval in cross section; in upper part of sinker, two round holes made by counter drilling.

Location of the find unknown. Given as a gift to the museum in 1990.

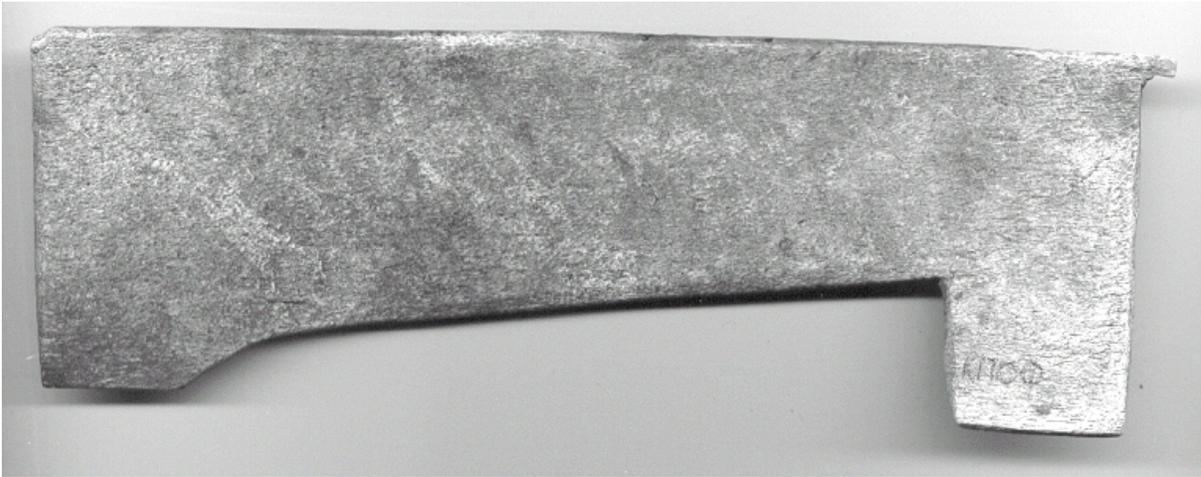
Short piece of a thick walrus tusk. 8.8 x 6.5 x 3.7 cm.

**Cat. # 3396**

**6.1.3. Making and repairing of fishnets.**

For weaving a net the Eskimos and Coastal Chukchi used several devices. In order for the

mesh to be even and of the same dimensions they used a special net gauge.



**Net gauge.**

Flat, rectangular bone plate. One side even, the opposite side cut out for a hand-hold. On front part of plate, a rectangular projection with the dimensions of the mesh.

Found during the excavation of a frame dwelling from the end of the nineteenth-beginning of the twentieth century at the Eskimo site of Kivak in 1997.

Bone – upper: dense layer of whale rib. 19.3 x 6.4 x 0.5 cm.

**Cat. # 6195**

For weaving nets, shuttles were used onto which the line for the nets – sinew, thongs, or cord – was wound. The shuttles were made primarily of wood and baleen, and were all used in the same way. The line for the net was wound on the shuttle. With the shuttle, and the line wound on it, the net is woven.

In the museum collection two shuttles belong to the modern period.



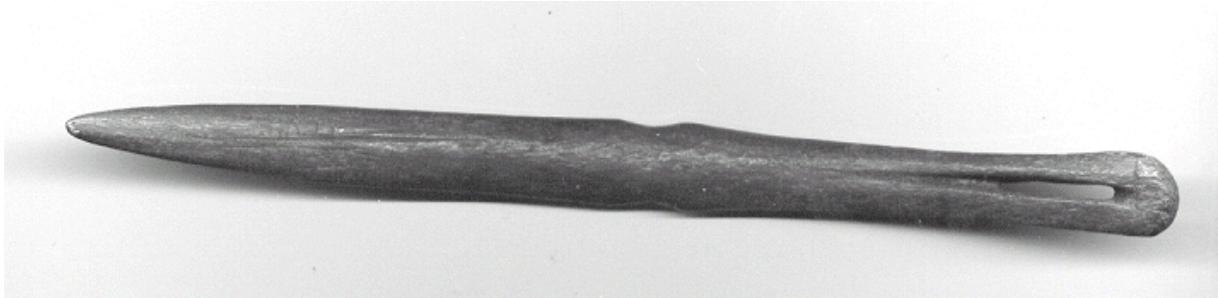
**Shuttle for weaving nets.**

Oblong, narrow, and flat plate of baleen with deep cuts in both ends and slits. Line (sinew, cord, or fishing line) wound on the central part of the shuttle. The thin lateral sides held the wound line in place and did not permit it to become tangled. Found in a cabin in the modern village of Plover MZRK on the Iyen Spit in 1990 (MZRK (*Morzverokombinat*) is the Enterprise for Harvest and Utilization of Marine Mammals.). Dated from the modern period. The settlement of Plover existed only from the mid 1940s to 1958.

Baleen from a bowhead whale. 17.5 x 3.2 x 0.5 cm.

**Cat. # 4828**

Archaeologists and ethnographers have identified objects encountered in early Eskimo villages as needles for repairing nets. It is probable that nets of baleen were often torn, thus the reason for the evidence of so many needles. These needles are usually “thick” with an eye in the rear part. The eye is intended for the attachment of strips of baleen, sinew, or thongs for repairing the net.



**Needle for repairing nets.**

Thin and narrow, rather strongly curved bone working end with pointed front. A narrow oblong eye has been carved in the rear part; depressions for the fingers carved in the sides of the front part. Accuracy of manufacture of object is noteworthy. Found among early dwellings of the Eskimo site of Sireniki in the mid 1980s during the construction of a fur farm. Given to the Provideniya Museum in 1996.

Fossilized ivory. 17.1 x 1.3 x 0.8 cm.

**Cat. # 6072**

**6.2. Fish leisters.**

Rudenko, characterizing the fishing tools of the early coastal inhabitants, notes that “Fish spear points occur ubiquitously and in large numbers on the coast of the Chukchi Peninsula. This indicates intensive fishing of large fish in lagoons, lakes, and at river mouths” (Rudenko 1972:135).

These points were usually made with blunt barbs and were large in dimension. Leisters might also have had only a central tine and been used as a spear or dart, or they could have been compound with a central and lateral tines, and with several lateral tines.

Several (two to four) lateral tines were arranged on the front part of the shaft.

Leister tines are similar to the tines on bird throwing darts. Rudenko believed that the basic distinguishing feature of leister points is their substantial dimensions and massiveness. More rare, in Rudenko’s opinion, are the tines of small and light fishing leisters.

Specimens of fishing leisters and their points are also described in the ethnographic literature (Nelson 1899). According to information from Native consultants, fishing leisters with bone tines were used for procuring fish in shallow lagoons and lakes as late as the 1960s.

Leister points were fastened to the shaft with the aid of a binding of sinew or raw thongs. Thin strips of baleen might also have been used.

The central tines were usually set in a forward cut in the harpoon shaft and therefore had a pointed stem. Some central tines of fishing leisters were fastened to the sloping cut on the forward part of the shaft; consequently the stem of the tine had a comparable sloping cut.

The lateral tines were usually set in narrow slits in the front part of the shaft. On the lateral tines of a fishing leister the stem is flat, carved at a slope, with a projection on the rear end and/or a hole for attaching it.

The lateral tines of a fishing leister were attached in such a way that the barbs of the tines were turned toward the interior of the leister, toward the shaft. Upon spearing a fish, the central tine pierced

the fish and held it with the barbs. With lateral tines on a leister, the fish ended up between them; the lateral tines, being moved apart (owing to the elasticity of the binding), clasped the fish, and held it with the barbs, which were turned inward, and the tension of the tines.

Whole tines and fragments have been found in substantial quantity at all sites. They vary in form, tine characteristics, size, and material. Many pieces, and even whole tines, are difficult to interpret – it is always possible mix up the tines of fishing leisters with those of bird throwing darts.



**Central tine of a fishing leister.**

Large flat tine with three barbs arranged along one edge; pointed stem. Triangular barbs arranged one behind the other with an equal distance between them.

Found at the old site of Kivak by the first general director of the Provideniya Museum, P. V. Cherepanov, in 1970s and 1980s and given to the museum as a gift in 1990.

Porous bone. 22.0 x 2.1 x 1.1 cm.

**Cat. # 5652**



**Central tine of a fishing leister.**

Flat tine of medium size, with a pointed tip and one large barb cut out at the front end. On the inside of stem, a beveling cut forms the platform; on the back end of tine, on the outside, a small restricting projection was carved out.

Found at the old site of Kivak by the first general director of the Provideniya Museum, P. V. Cherepanov, in 1970s and 1980s and given to the museum as a gift in 1990.

Porous bone. 18.2 x 1.7 x 1.0 cm.

**Cat. # 5653**



Given to the museum by the Sireniki Village Cultural Center.

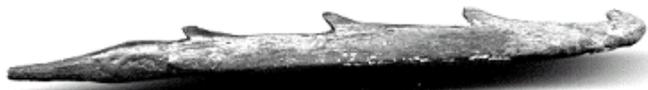
Fossilized ivory; walrus tusk. 8.1 x 1.0 x 0.5 cm.

**Lateral tine of a fishing leister.**

Small flat tine with three pointed barbs arranged along one edge; pointed front end. Relatively short stem, flattened triangle in cross section. Broad groove on the outside of stem.

Found in the vicinity of early semi-subterranean dwellings of the Eskimo site of Sireniki. Surface find.

**Cat. # 3067**



**Central tine of a fishing leister.**

Small tine with four small, pointed, lateral barbs and a pointed stem.

Found in the vicinity of early semi-subterranean dwellings of the Eskimo site of Sireniki. Surface

material. Given to the museum by the Sireniki Village Cultural Center.  
Fossilized ivory: walrus tusk. 8.4 x 0.7 x 0.4 cm.

Cat. # 3737

### 6.2.1. Compound salmon leister.

On the coast of the Chukchi Peninsula compound salmon leisters with attached barbs like a type of boat-hook, but small in size, were also used for catching large salmon going to spawn.

During an archaeological expedition in 1945 Rudenko found such barbs at an early campsite in Uelen and at the Sirenikis. He notes that F. Rainey found leister barbs at the Okvik site in the Penuk Islands, among items of the Penuk complex on St. Lawrence Island, at sites of the Thule culture in Canada, and at Point Barrow. The researcher concludes as follows:

On the basis of finds of barbs at the older Uwelen site and in the western sector of the cultural deposit at Sirhenik, as well as the occurrence of similar examples at the Okvik site in the Penuk Islands, it may be supposed that we are dealing here with one of the oldest Eskimo implements (Rudenko 1972:136).

Barbs of compound leisters are typologically similar and are distinguishable only by their dimensions and structural components, that is, in some of the ways they attach to the shaft. Some of the barbs have a long slit through which thongs passed (sinew or strips of baleen) for the binding. Others have round holes, usually three. All the barbs are short but pointed and slightly turned back, and a projection, for attachment to the shaft, was made by cutting out some part of a barb.

The barbs (one or several) were fastened to the lower end of the leister shaft. With an upward movement they clutched the fish with the sharp points of the barbs on the compound leister.

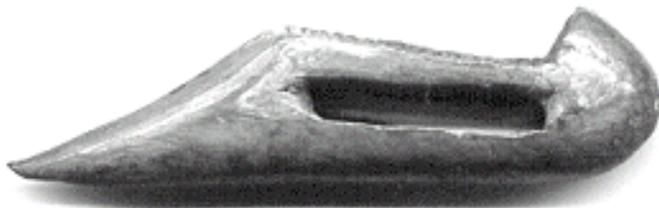


#### **Barb of a compound salmon leister.**

Tiny barb with oblong slit for fastening to a shaft. Found at the early Eskimo site of Sireniki in 1975-1980 and given to the museum by a resident of Sireniki village, Aron Nutaug'e, in 1993.

Fossilized ivory: walrus tusk. 4.3 x 1.0 x 0.8 cm.

Cat. # 3080



#### **Barb of a compound salmon leister.**

Medium size barb with longitudinal slit for fastening to a shaft.

Given as a gift to the museum by the Provideniya Bay customs house in 1994.

Location of the find unknown.

Fossilized ivory: walrus tusk. 6.0 x 1.6 x 1.2 cm.

Cat. # 4832



#### **Barb of a compound salmon leister.**

Medium size barb with three round holes, arranged along a cut, for attachment to a shaft.

Obtained from the public museum of Sireniki village in 1985.

Fossilized ivory: walrus tusk. 7.5 x 2.2 x 1.05 cm.

### 6.3. Fish harpoon heads. *Toggling harpoon heads for catching large salmon.*

Small and simple bone heads are most often viewed as intended for procuring large salmon, though some researchers believe they are toy harpoon heads.

The period of existence and character of use of the tiny heads has not been completely determined.

Tiny harpoon heads are also evident in materials from the excavations of the Ekven cemetery (Old Bering Sea period). S. A. Arutiunov and D. A. Sergeev (1975) believed that such type of heads were toys.

According to the ethnographic data, tiny harpoon heads served children in their training play, which imitated hunting. When they brought the liver of a procured walrus into the dwelling, the boys ‘harpooned’ it (Arutiunov and Sergeev (1975).

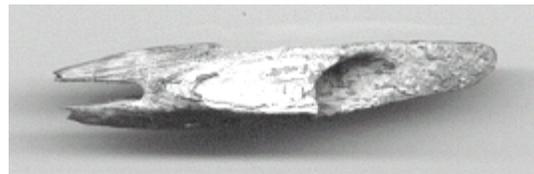
Rudenko believed that judging by their dimensions these heads were too small to be used for procuring sea mammals; in all likelihood these points were used to catch fish.

In 1945 tiny harpoon heads were found in excavations (Rudenko) at the early Uelen campsite (no earlier than the Punuk period), at the Sirenikis (middle layers of the eastern sector, which date to the early Punuk period), Nunligran (“western campsite,” which dates to the late Punuk period), and Enmelen.

Collins found heads of this type on St. Lawrence Island in comparatively late Old Bering Sea cultural layers. T. Mathiassen described similar harpoon heads, based on his excavations of the early site of Naujan in the region of occupation of the central American Eskimos (northwestern part of the Hudson Bay coast), as salmon harpoon heads, from the Thule cultural complex (twelfth to thirteenth century).

The ethnographic literature has information about harpoon heads for procuring fish. These heads have an open socket and narrow hole for a thin line in the upper part of the head (based on the excavations of a site assigned to the Dorset culture [northern part of Hudson Bay, late Dorset period—tenth to twelfth centuries]).

The construction and principal action of fishing heads are the same as that of toggling harpoon heads for hunting sea mammals. It is entirely probable that fishing heads were used without a foreshaft, and were hafted directly on the thin end of the harpoon shaft. As a variation, a thin bone rod was inserted in the end of the shaft and the head hafted on it. It is also possible that these harpoon heads were used as the points for arrows, and such arrows were shot from bows at fish.

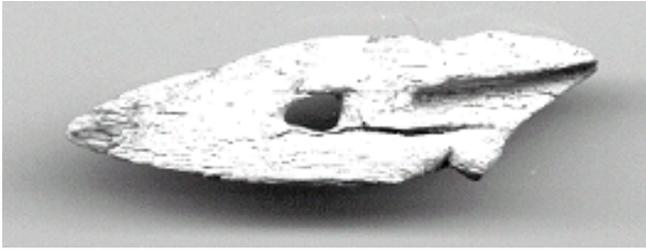


#### **Fish harpoon head (toggling).**

A type of small harpoon head with closed socket; simple spur; one central round hole for a line, bored from two sides (biconical); front end pointed. A broad (0.3 cm) slit in it for an end blade is in the plane perpendicular to the line hole.

Found at the early Eskimo site of Kivak in 1980 and given to the museum in 1990.

Ivory: walrus tusk. 5.4 x 1.1 x 1.0 cm.

**Fish harpoon head (toggling).**

A small type of harpoon head with open socket; two notches for attaching the band that keeps the head on the foreshaft or shaft. Simple spur; one triangular central hole; front part pointed in the form of a working end, without a slot for an end blade.

Found at the early Eskimo site of Avan in the 1980s and given to the museum in 1990.

Ivory: walrus tusk. 5.1 x 1.4 x 0.7 cm.

**Cat. # 3464**

**6.3.1. Non-toggling harpoon heads for procuring large salmon.**

Non-toggling harpoon heads are represented by small points with usually one barb, a pointed stem, and a hole for attaching a fine line. The head is set in a hollow in the harpoon shaft and kept in place by a stretched line. The fisherman stood in the water or on the bank with the harpoon at ready and waited until a large fish was swimming past. With the appearance of a suitable prey the fisherman threw the harpoon, the head pierced the fish, sprang off the shaft, and the fisherman had the prey on the line. The barbs held the head in the body of the fish. Large fish were finished off with a stone or a special club.

**Fish harpoon head (non-toggling).**

Small head with pointed front end, with one pointed barb; a lateral oblong hole for a line; pointed stem. Flattened point, diamond-shaped in cross section.

Found among early dwellings at the Eskimo site of Sireniki in the mid 1980s during the construction of a fur farm. Given to the Provideniya Museum in 1996.

Fossilized ivory: walrus tusk. 6.6 x 1.1 x 0.7 cm.

**Cat. # 6071**

**6.4. Dip nets (íalyu).**

In addition to salmon, of great significance in the nutrition of the coastal residents were, and continue to remain, fish of the cod family – *sayka* (*Boreogadus saida* Lepechin [Arctic cod]), Far East *navaga* (*vakhnia*) (*Eleginus gracilis* Tilesius [saffron cod]), and *treska* [cod – in general].

In excavations of sites on the coast of the Chukchi Peninsula a substantial quantity of scraps of baleen nets have been found. In addition were found strips of wood, baleen, and stone sinkers made from cobbles with grooves around the middle. All these were parts of the traditional dip net (*íalyu*) for catching saffron cod in winter. The Chukchi borrowed this Eskimo tool for catching fish from their neighbors. In the Chukchi language such dip nets are called *íelyungið*.

Dr. Karl Merck, a member of the Northeastern Geographic Expedition (better known as the Billings-Sarychev Expedition), cites information on the uses of a variety of fishing equipment, including the dip net.

Concerning catching fish, the Natives occupy themselves with it only sometimes, for the use of fish in the dry form, though do not store it up for the future. They use nets of cord . . . though sometimes the dip net of baleen strips, to which they attach a stone at the bottom; a bone rod serves for catching small fish. (Merck 1785-1795).

The dip net (*íalyu*), along with bone rods and large fishnets, is a traditional tool for fishing that existed up to the modern era in the development of the Eskimo culture. The *íalyu* is a net of baleen woven in the form of a cone. Around the broad end it is fastened to a rim about 0.5 m or slightly more in diameter. The rim could be wooden or of baleen. In the lower part of the net is a hole. This hole is filled by a cobble sinker with a groove around its middle for attachment to the net. The lower end of the net is drawn tight with a strip of baleen. Fastened to upper edge of the net are three thongs that are tied together slightly above it.

In winter large schools of saffron cod approach the shores of the Chukchi Peninsula. The coastal residents usually made holes in the ice within which to lower dip nets. Looking into the hole, they waited for a fish to appear over the dip net, then with a quick movement they pulled out the dip net along with the trapped fish. But most often the dip net was thrown into the sea from the shore-fast ice.

E. Nelson cites a description of a dip net from a village in Plover Bay.

Figure 12, plate LXX, represents a dip-net from Plover Bay, Siberia, made of whalebone, which is used for catching small fish in the lakes and streams of that vicinity. The mouth of the net is held open by a stout rim of whalebone. Four strands of the same material are attached at intervals around the rim and fastened together about sixteen inches above it. A heavy granite boulder, grooved to receive the lashing, is fastened to a whalebone ring in the bottom of the net, which is used by being thrown out into the water and then hauled to the shore by a cord (Nelson 1983:187).

Rudenko notes that nets and sinkers were found predominantly in late sites (Cape Kygynin on Arakamchechen Island and Cape Chaplina). Collins found such sinkers on St. Lawrence Island in the late Penuk complex, describing them as a sinker for a dip net for catching cod. Rudenko, who conducted archaeological investigations on the Chukchi Peninsula in 1945, writes that the dip net “still persists among the Asian Eskimos” (Rudenko 1972:137).

In the Yupik Eskimo language, connected with the name of this dip net is the name of one of the months of the year – *íalyuvik* – the month when fishing for Arctic cod (*íalyu*) begins (approximately November).

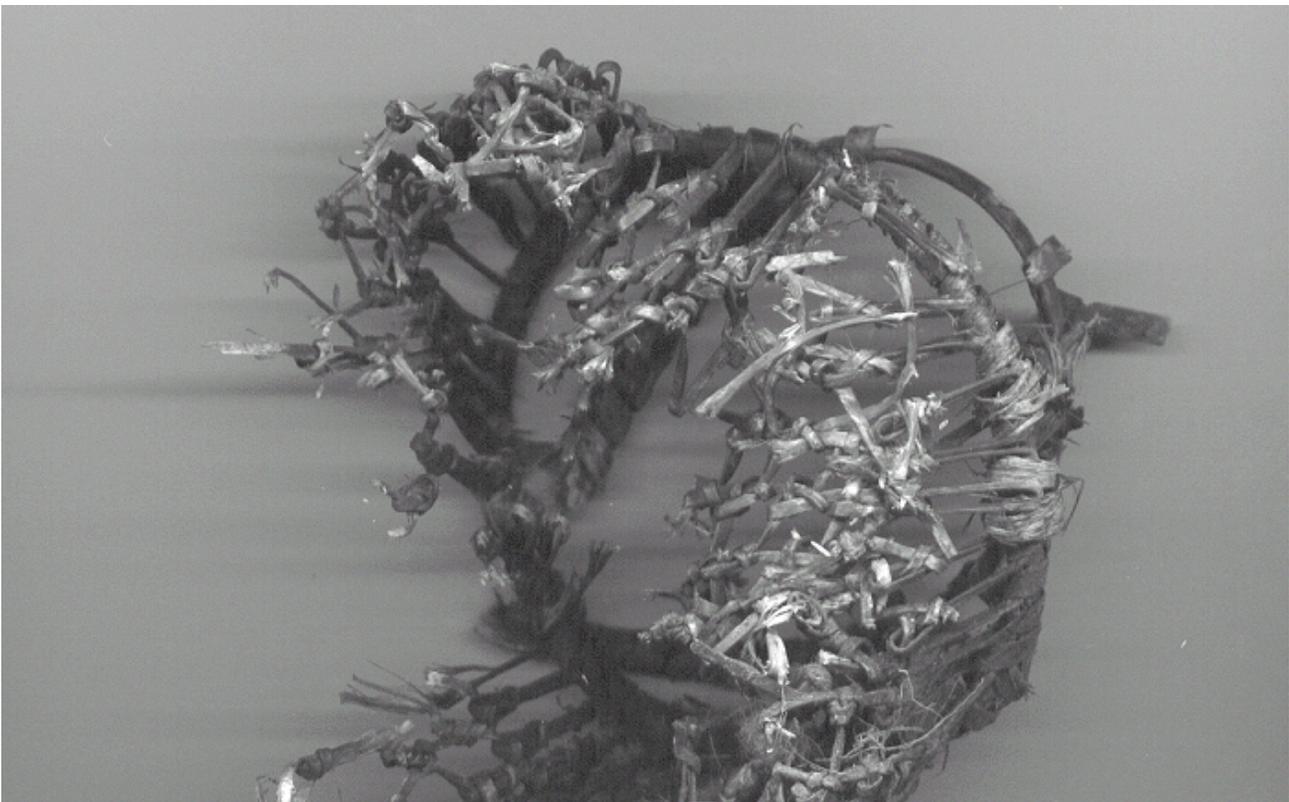
In Ukig'yarak and Chaplino saffron cod and Arctic cod are caught with a dip net. Up to the 1930s and 1940s the dip net was made of baleen. A net of baleen was fastened to a rim of baleen. During these years the net began to be made of cord. In the lower part of the net a stone with a groove was set and it was fastened by a slender thong of bearded seal skin. The stones were preserved (since they were sinkers for the nets). In Ainana's family, her father had several stone sinkers that remained from former times. To the rim a thong of bearded seal or young walrus hide was fastened. The signal to fish for Arctic cod was a cluster of seals or the approach of belugas to the shore. Also, the stomachs of procured seals were examined to see if there were Arctic cod there. The net was thrown into the sea from the shore-fast ice. The fish were frozen and preserved in pits; when there were many they were simply buried in the snow. In summer fish were dried. In summer on the shore sometimes Arctic cod, smelt, and capelin were thrown up by the sea (Ainana 1997, personal communication to I. Zagrebin).



**Dip net sinker.**

Large, light-colored cobble with hollowed-out, surrounding groove.  
 Found among the shoreline dwellings of the Eskimo site of Kivak.  
 Granite. 9.25 x 7.2 cm.

**Cat. # 2748**



**Dip net (*ialyu*).**

Two small fragments of baleen net with 15 x 15 mm mesh. One fragment, from the middle part of a net, in the form of a ring; the second fragment, from the lower part of a dip net, with two borders for holding the sinker.  
 Given by the People's Museum of Lavrentiya in 1990.  
 Baleen. 40.0 x 20.0 cm; 14.0 x 8.0 cm.

**Cat. # 2636**

### 6.5. Rods for catching saffron cod and Arctic cod under the ice.

With the establishment of a stable ice cover and the arrival of fish to the coast, the season for fishing under the ice begins.

The fishing-tackle used in salt water is employed chiefly for various gadoid species. . . . Three or four hooks are fitted together into an ivory stem, and several implements of this kind are fastened with short strips of whalebone to a common ivory or iron support. If the support is of iron, it serves also as a sinker. No rod is used. The line is of sinew or of thong (Bogoras 1904:150).

At the end of April-beginning of May large schools of saffron cod approach the shore. During this time, it is possible to see old and young sitting by long cracks in the ice along the shore. The cracks appear as a result of spring tidal activity. The saffron cod run. During this time the saffron cod are caught with the rod. The cracks permits chipping out a hole with little effort; usually, they must peck the ice out with a metal – in the past a bone – ice pick and scoop out small chunks of ice with an ice scoop.

For fishing under the ice, the earlier coastal residents used a hand line of baleen or sinew for fishing. The rod was usually equipped with several compound or simple hooks and a sinker. No bait was used. The fish were lured to the light color of the sinker or the bone shank of the hook. The fishermen constantly jerked the hook up and down, hooking passing fish.

Sinkers for rods are the most frequently found. The sinkers were necessary because the bone hooks were light and did not sink readily. These are found in substantial number and a large variety of forms in excavations of all sites of the coast of the Chukchi Peninsula. The sinkers vary greatly in form and dimensions, though typologically they are homogeneous. Sinkers are most often oblong with lugs on both ends.

The form of a sinker can vary – spindle-shaped, rounded, flat, and, in some cases, in the shape of a small dumbbell. Sinkers for the fishing rod were carved, as a rule, from walrus tusk, but sometimes a walrus tooth was also used for this. Sinkers made of other objects or tools have also been found. Sinkers for rods also vary in dimensions – from tiny (3 to 4 cm) to very large (more than 10 cm).

Collins (1937) distinguishes eight types of sinkers just among the earlier forms.

Of the total variety of sinkers two basic groups can be distinguished – simple and complex.

#### 6.5.1. Simple sinkers for fishing with a rod.

To this group belong sinkers of different form and size, but with only two holes, usually the upper and lower end holes (the sinker for a fishing rod was situated in the water in a vertical position). They could be arranged in the same or different planes. The primary line of baleen was fastened to the upper lug, and one or several lines with hooks were attached to the lower lug. Sinkers made of walrus tusk are found most often, but others are made of antler and sea mammal bone.



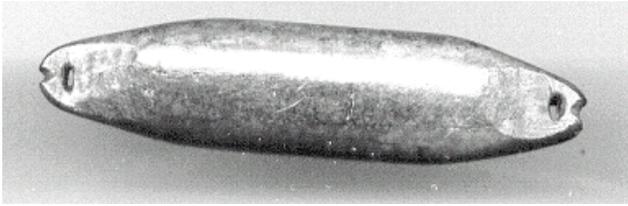
#### Sinker for a fishing rod.

Large, oblong, spindle-shaped sinker for a fishing rod, somewhat flattened on the sides. On the ends, cut out narrow, oblong (to the length of the sinker) holes for the line.

Found among old dwellings of the Eskimo site of Sireniki between 1975 and the 1980s and given as a gift to the museum by a resident of Sireniki village, Aron Nutaug'e, in 1993.

Fossilized ivory: walrus tusk. 10.55 x 2.9 cm.

Cat. # 3069

**Sinker for a fishing rod.**

Medium size, oblong sinker, oval in cross section, with wedge-shaped lugs on both ends in which oval (perpendicular to the length of the sinker) holes were cut; with an incised groove for the line.

Obtained from the Public Museum of Sireniki village in 1985.

Fossilized ivory: walrus tusk. 7.9 x 1.9 cm.

**Cat. # 129**

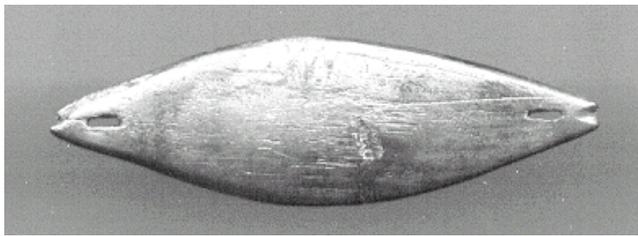
**Sinker for a fishing rod.**

Small spindle-shaped sinker with flattened ends, carved in different planes. End holes large and oblong (one is cut along the length of the sinker, the other perpendicular).

Obtained from the Public Museum of Sireniki village in 1985.

Fossilized ivory: walrus tusk. 6.6 x 1.6 cm.

**Cat. # 127**

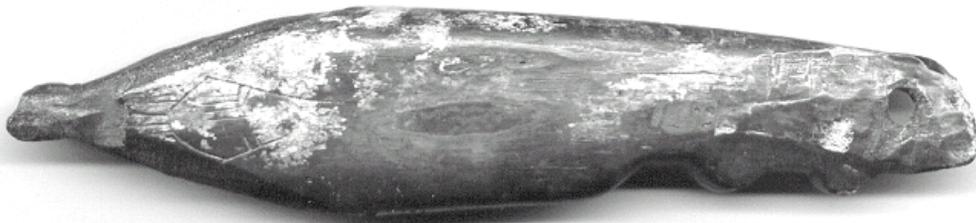
**Sinker for a fishing rod.**

Small, somewhat bent, flat sinker from an oval spall of walrus tusk. Narrow rectangular holes cut in the ends; with grooves for the line.

Surface find of the 1970s – 1980s from the early Eskimo site of Kivak. A gift to the museum (1988) by P. V. Cherepanov.

Fossilized ivory: walrus tusk. 7.8 x 2.4 x 0.6 cm.

**Cat. # 5651**

**Sinker for a fishing rod.**

Large sinker, with wedge-shaped rough-hewn ends, in which large (0.7 cm in diameter) holes were bored. Probably made from the handle of a stamp for ceramics; three incised depressions for fingers. Decorated on one side of the sinker.

Surface find of the 1970s – 1980s from the early Eskimo site of Kivak. Gift to the museum (1988) by P. V. Cherepanov.

Fossilized ivory: walrus tusk. 15.0 x 3.2 x 2.0 cm.

**Cat. # 5747**

**6.5.2. Compound sinkers for a fishing rod.**

Some of the sinkers not only have end holes, but also lateral lugs embedded in the plane of the sinker and usually located in its middle. Sinkers that have both lugs and pointed barbs can be assigned to this same group. In this case, the sinker was also used as a hook.



**Compound sinker for fishing rods.**

Oblong sinker, broader at the lower end, with round holes in both ends. Holes drilled in different planes. On the lateral surface, a lug was carved, embedded in the surface of the sinker.

Surface find at the early Eskimo site of Kivak, 1996. Purchased by the museum in 1997.

Fossilized ivory; walrus tusk. 12.2 x 2.0 cm.

**Cat. # 6314**



**Compound sinker for fishing rods.**

Medium size, pear-shaped sinker. In the upper part, a hole drilled and a groove carved for a line; a hole in the lower end. In the thickened lower part of the sinker four lugs, embedded in the surface of the sinker, carved for tying hooks. In all four lugs, the rawhide loops were preserved, to which short leaders for hooks were fastened. One preserved leader for a hook, 6.5 cm long. Two holes bored into sinker and lead rods inserted to make the sinker heavy.

Surface find in the vicinity of Cape Kygynin on Arakamchechen Island in 1996. A purchase of the museum in 1997.

Walrus tusk; leather; baleen; cord; and lead. 8.3 x 2.3 cm.

**Cat. # 6179**

One or several hooks were attached to the sinkers on leaders.

### 6.5.3. Fishhooks.

Over the course of a long time the residents of the coast used compound fishhooks. This type of hook was used widely as a fishing tool. According to Collins (1937), this form of the compound fishhook, for catching cod on St. Lawrence Island, only emerges in the Punutuk period. The same kind of hooks were also found on the same island by O. W. Geist and F. Rainey (1936) during excavations of late proto-historic dwellings. Meanwhile, Rainey (1941) believed that compound fishhooks were in use by the Okvik (the earliest) stage of development of the Eskimo culture.

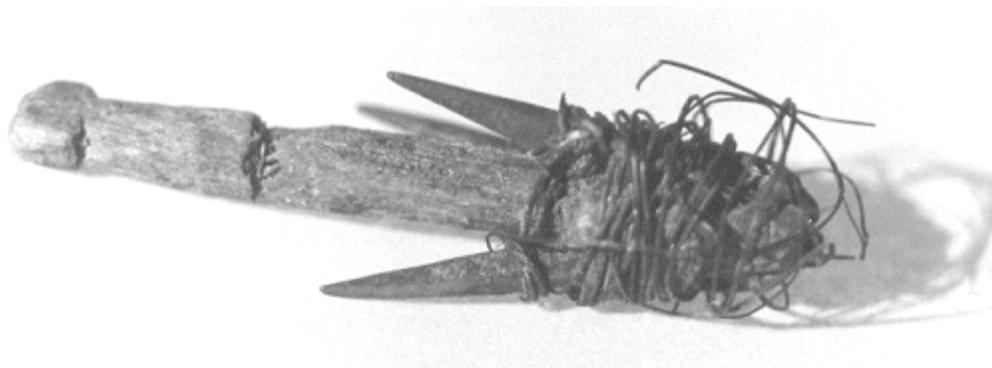
Bogoras (1904) describes such compound hooks. And Rudenko depicts this fishing implement thus:

In a late Old Bering Sea implement assemblage on St. Lawrence Island, Collins found a small wooden shank with a small weight in the form of a pebble attached by a strand of baleen and with a small pointed bird bone suggesting the barb of a fishhook.

.....

The presence of barbs, usually of ivory, at a number of sites on the Chukchi Peninsula indicates the wide distribution of compound fishhooks. Barbs of this kind are available from the later site at Nunligran, from Sirhenik, from Cape Chaplin and from Uwelen. . . . [W]e do have shanks of compound fishhooks with three barbs from Sirhenik, both of wood and of ivory (Rudenko 1972:136).

The base for the compound fishhook is the shank to which the barbs are attached. The shank is characteristically club-shaped in form – with a relatively long stem, usually rounded, and a thickened lower part. Usually three longitudinal depressions or slots are carved in it, in which bone barbs are set. The shank varies greatly in dimensions – from less than 5 to 15 cm. A variety of materials was used to make the shank – walrus tusk, sea mammal bone, and wood. On the lower part of the club a surrounding groove is usually carved so that the binding holding the barbs in place did not come off. Strips of baleen from a bowhead whale were used for the binding. A hole bored in the upper part of the shank is for tying on the primary line.



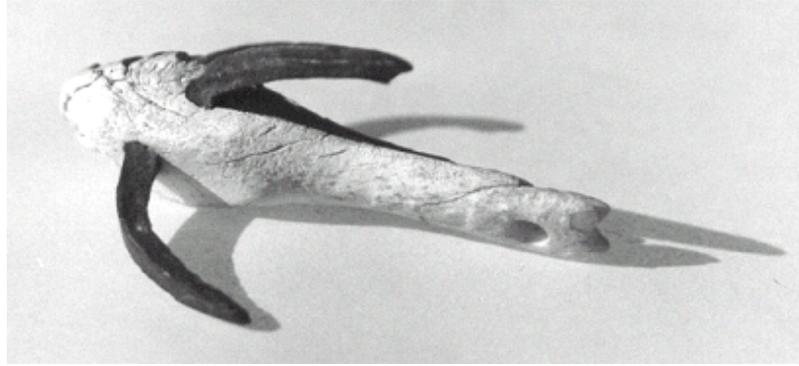
#### **Fishhook.**

Tiny hook comprising a wooden shank, three bone barbs set in slots in the shank, and a binding of baleen holding the barbs on the shank.

Found at the early Eskimo site of Kivak in 1980 and given as a gift to the museum in 1991.

Wood; bone; baleen from a bowhead whale. 3.6 cm.

**Cat. # 2836**

**Fishhook.**

Tiny hook; club-shaped bone shank, into the lower part of which were set, perpendicular to each other, two pointed metal rods which form four hook barbs. One of the barbs has been lost.

Found at a Chukchi camp in the vicinity of Rudder Bay in 1989 by an inspector from the Okhotsk Fisheries and given to the museum in 1990.

Ivory: walrus tusk; metal. 4.2 x 0.9 cm (shank); barb length 1.9 cm.

**Cat. # 4369**

**Shank of a compound fishhook (blank).**

Small, carefully carved bone shank with three slots for barbs. In the upper part of the stem, a round hole carved for tying the line; on the very end, a groove for the line. Found in the vicinity of early semi-subterranean dwellings of the Eskimo site of Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Walrus tusk. 6.5 x 0.7 cm.

**Cat. # 3113**

**Shank of a compound fishhook.**

Large, somewhat bent, bone shank with three slots for barbs. Flattened upper part of stem, with a large round hole for tying the string.

Found in the vicinity of early semi-subterranean dwellings of the Eskimo site of Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Bone. 13.2 x 1.35 cm.

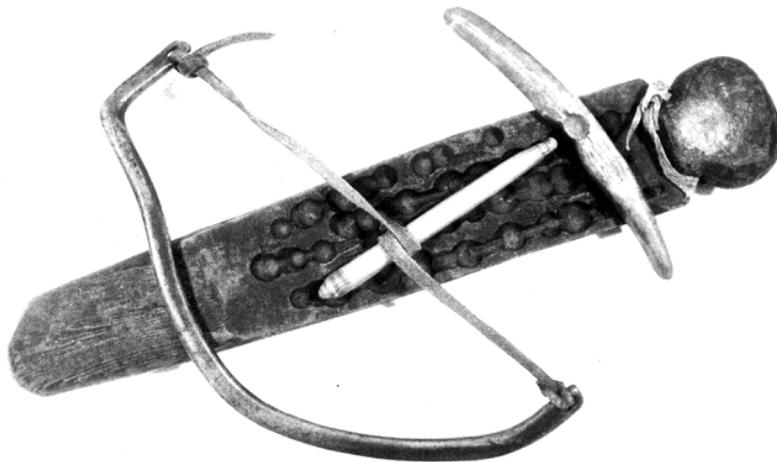
**Cat. # 160125**

## 7. Tools for Working Stone, Bone, Wood, and for Making Fire with a Drill.

### 7.1. Making fire with a drill.

As among many peoples of the world, the Native residents of Chukotka practiced making fire with a drill. Archaeologists have found objects that served this purpose in many early sites, and it is possible to assign them with confidence to various periods in the development of the Eskimo and Chukchi culture.

Instruments for making fire were a wooden spindle, a small bow, a wooden hearth, and a drill rest (Fig. 1).



**Figure 1.**

Wooden spindles are the most frequent finds in coastal sites. Their dimensions differ greatly, but in form they are always thicker in the lower part and of smaller diameter in the upper end. Many of such spindles in the museum collection are charred on the lower part, which attests to the use of these objects for making fire.

The hearths in the museum collection are vary in size and form. Some have a distinctive head or support for holding the hearth in the hand. Others were made like a small rectangular board, but all are easily recognizable by the rows of pits—from one to four.

The drill rests, which served for holding the wooden spindle during drilling, are of two types in the museum: hand-held and mouth-held.

The majority of hand-held rests were made of a piece of walrus tusk and have a pit in the central part. Such rests have been found at the sites of Sireniki, Kivak, Enmelen, Nunligran, and on Arakamchechen Island.

Especially notable is a skillfully decorated hand-held rest from the site of Sireniki.



**Hand-held support.**

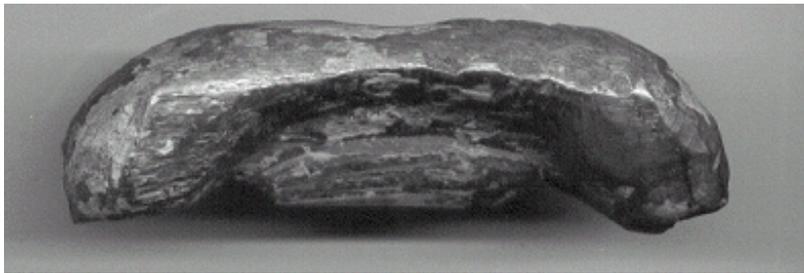
Bow-shaped; semicircular in cross section, with the platform and pit in the middle of the inner side for holding a wooden rod; decorated on the outer surface; one end damaged and lost.

Found among early semi-subterranean dwellings at Sireniki. Surface find. Purchased from a resident of Provideniya, A. Rozganov.

Ivory: walrus tusk: carving in ivory. 20.0 x 2.9 cm.

**Cat. # 6073**

Mouth-held rests in the collection are few in number. They have been found on Arakamchechen Island and at Sireniki. The method of using such supports is similar to the method used in carving bone. Such a rest has a special gripper or groove so it can be held by the teeth, a broad cuff for protection of the lips, and a pit in the center for placement of the wooden spindle or cutting tool.

**Mouth-held rest.**

Bow-shaped; with rectangular platform-gripper for the teeth on the inside and a pit on the outside for holding the wooden spindle.

Found at the early site of Sireniki. Surface find. Purchased by the museum from a resident of Provideniya, A. Rozganov.

Ivory: walrus tusk. 7.7 x 2.5 cm.

**Cat. # 6074**

Bone or wooden bows were used for rotating the wooden spindles to procure fire or to engrave bone. Such bows were usually equipped with a leather thong.

**Bow.**

Bow-shaped; oval in cross section; with oval holes through the ends for tying the leather thong; equipped with a thong.

Given to the museum by a resident of Yanrakynnot village, A. Tykkhagirgin, in 1997.

Bone: antler; bearded seal leather. 40.0 x 2.0 cm.

**Cat. # 6360**

## 7.2. The preparation of stone tools.

Throughout the course of many historical epochs from the Neolithic to Punuk times the widespread

use of a variety of stone tools is evident.

According to Rudenko, it is possible to distinguish five basic stages in the manufacture of stone tools: flaking off spalls and blades from cobbles or cores, coarse flaking of the blanks for imparting the form, fine flaking of the sides, trimming the surface and working edges by retouch, and grinding the working edges or the whole tool.

In the museum collection, of the tools used in the manufacture of stone tools, there are handles from retouchers, or pressure flakers, from the sites of Enmelen and Sireniki. They were made of walrus tusk and have slightly bent handles and flat heels. Such pressure flakers were used for preparing slate blades and points, as well as for the application of retouch to flint tools.



**Pressure flaker.**

Bow-shaped, paw-like with a handle; handle is oval in cross section, heel is a flattened oval with a deep longitudinal groove on the outer side. Used in the preparation of slate working edges and the application of retouch to hard stone tools. Found among early dwellings at Enmelen in 1976. Given to the museum by regional Pioneers' Home. Ivory: walrus tusk. 17.0 x 2.4 cm.

**Cat. # 2717**

**7.3. Stone and bone adzes.**

The most important tool among the Eskimos for working bone and wood was the stone adze. With adze-like axes they hewed and cut walrus tusk and antler, and worked and hewed out unfinished wooden elements for the construction of dwellings and other items of the hunt and daily life.

The material for making adzes was basalt, nephrite, flint, obsidian, and walrus tusk.

The form of such an adze was rectangular and elongated, where the length was usually twice the width. The working edge of such adzes was well ground and was sharpened from 70° to 45°. On some adzes the outer working edge had a greater angle of sharpening than the inner edge, which permitted more effectively working such dense materials as walrus tusk.

Very rarely have bone adzes been found. In the museum collection adzes of walrus tusk are represented from the site of Kivak. One of them is flat in form like a tiny shovel. The narrower, stem part was tied directly to the handle. Another adze is rounded in cross section, with a pointed working edge,

an oval-rectangular groove for seating the handle, and a penetrating longitudinal hole just outside the wall of the groove, which served for tying the adze onto the handle. Such adzes were most probably used only for working wood.



**Stone adze.**

Trapeziform, with both surfaces coarsely flaked, working edge ground to 60°.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1985.

Hard stone. 7.0 x 4.5 cm.

**Cat. # 4398**



**Bone adze.**

Flattened shovel-shape with sharpened working edge.

Found among early dwellings at Kivak. Surface find. Given to the museum by a resident of Provideniya, P. Cherepanov, in 1988.

Ivory: walrus tusk. 10.8 x 5.0 cm.

**Cat. # 4515**

#### **7.4. Sockets for adzes.**

Stone adzes were usually placed in a special socket for convenience in working bone and wood. Such sockets were made of antler or porous whale bone.

All the sockets in the museum collection can be separated into three types.

The first type is antler with an oblong or rectangular hole for hafting the handle and an oblong cavity for seating the adze. Such sockets have been found at the sites of Vankarem and Sireniki.

**Adze socket.**

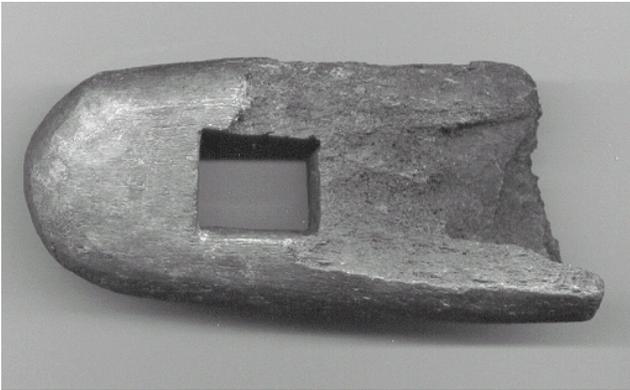
Trapeziform, with a penetrating oval hole for the handle and an oval cavity for the stone working implement; a longitudinal crack from the upper part through the oval hole. A piece of the wooden handle was preserved.

Found among early dwellings at Vankarem. Surface material. Given to the museum by a resident of Provideniya, A. Memel', in 1996.

Bone: antler. 8.2 x 5.3 x 2.1 cm.

**Cat. # 6015**

The second type, from the settlement of Enmelen, was made from porous whale bone. It has a piercing square slot for hafting the handle and an oval cavity for the stone adze.

**Adze socket.**

Trapeziform, a piercing square hole for the handle and a cavity for the stone tool. Part of the inner surface from the cavity to the hole split off and lost.

Found among early dwellings of Enmelen. Surface find. Given to the museum by the regional Pioneers' Home in 1985.

Whale bone. 11.0 x 5.0 x 2.8 cm.

**Cat. # 4288**

The third type is antler. It is elongated with a platform on one side and a longitudinal, piercing slot on the opposite side for attachment of the handle. It has an oval cavity for a stone adze and a small hole through one end. Such sockets in the museum collection are from the sites of Avan and Enmelen.

**Adze socket.**

Elongated, trapeziform, with a platform on the inside and a longitudinal hole through the outside for fastening the handle. In the upper part, a round piercing hole; in the lower, an oval cavity for the stone implement, and a stretched, oval, piercing hole for convenience of changing the inset.

Found among early dwellings of Enmelen. Surface find. Given to the museum by a resident of Enmelen village, A. Tareev. Bone: antler. 13.0 x 3.5 x 1.6 cm.

**Cat. # 1683**

### 7.5. *Wedges.*

Along with adzes for working bone and wood, the coastal residents often used bone wedges. Boring several slots in a walrus tusk, a master craftsman could then split such dense material with a wedge. Using this same technology, craftsmen made wooden blocks for building dwellings. They usually used the front part of a tusk for a wedge, hewed it to a point, while they left the heel flat for receiving blows from a heavy object. The dimensions of such wedges can vary, depending on its assignment, from 6 to 16 cm in length.

In the museum collection wedges are from the sites of Enmelen, Kivak, Sireniki, Yryrak, and Arakamchechen Island.



#### **Wedge.**

End fragment of a tusk, with hewed point and traces of spalling on the heel.

Found among early dwellings at Kivak. Surface find. Given to the museum by I. Zagrebin in 1995.

Ivory: walrus tusk. 18.9 x 5.4 cm.

**Cat. # 5277**

### 7.6. *Hammers.*

For applying blows to a wedge, special stone or bone hammers or simply well-rounded cobbles were used.

The stone hammer was made from a granite cobble that had a surrounding groove for tying it to a handle. Such hammers have been found at the site of Sireniki (this one is interesting) and on Arakamchechen Island. Such hammers could be used not only for working bone and wood, but also for breaking up long bones to extract marrow.



#### **Stone hammer.**

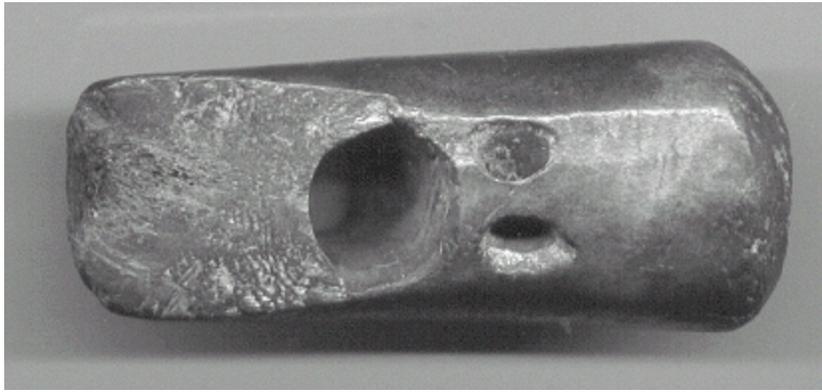
Rolled oval cobble with a groove completely around the middle for tying on the handle. Equipped with a wooden handle with a hole through the upper part for hanging up the hammer and a hole through the lower part for tying the stone cobble to the handle with a leather thong.

Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Provideniya, B. Gilyazov, in 1985.

Stone: granite; wood; and bearded seal leather. 10.0 x 12.0 cm, 17.0 x 5.6 cm.

**Cat. # 16**

Hammers made of walrus tusk were less frequently used. In the museum such hammers are from sites on Arakamchechen Island and Sireniki. They were outfitted with an oval hole for the handle and two carved lugs for the attachment of the handle with a special binding.

**Bone hammer.**

Trapeziform, with an oval penetrating hole for the handle and a lug hole for the thong attachment. Part of the heel, spalled off and lost.

Found among early dwellings on Arakamchechen Island. Surface find. Given to the museum by A. Gaevsky in 1997.

Ivory: walrus tusk. 8.8 x 4.3 cm.

Cat. # 6132

**7.7. Burins and their handles.**

The execution of finer work on wood, antler, baleen, and walrus tusk would have been impossible without special cutting, scraping, and sawing instruments. Such tools as scrapers, burins, and drills could be made of stone or metal.

In the museum collection burins are made of hard stone and were found at the sites of Sireniki and Enmelen. A larger number of the displayed bone handles for burins were found at Kivak, Enmelen, and the Sirenikis.

**Burin handle.**

Of extended form with a slightly bent end, oval in cross section, with a hole through the end for hanging the handle and a narrow cavity for inserting a burin.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen, Tareev.

Bone: antler. 9.7 x 1.5 cm.

Cat. # 6648

**Stone burin.**

Rectangular, with ground working edge and coarsely flaked heel.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen, A. Tareev.

Hard stone. 5.3 x 1.3 x 1.0 cm.

Cat. # 2649

Especially distinctive are special metal burins with a composite, two-part handle of walrus tusk. A burin, from the Kivak site, with a metal inset has been well preserved.



**Compound burin.**

Extended in form, oval in cross section, with notches on the outer surface. Composed of two parts; on the end of each half, a hollow for seating the metal blade and an oval hole through the larger half for hanging up the burin. Equipped with a metal blade; the halves were attached with a sinew binding.

Found among early dwellings at Kivak. Surface find. Given to the museum by a resident of Provideniya, B. Gilyazov, in 1994.

Ivory: walrus tusk; metal. 7.0 x 0.9 cm, 8.0 x 1.3 cm.

**Cat. # 5078**

## 8. Tools for Butchering Carcasses and Working Hides.

### 8.1. Knives, handles, and blades.

The knife was and remains the most widely used tool for butchering procured animals. Blades and handles, different in form, technique of preparation, and material used in their making, can be found in practically all early and traditional Eskimo and Chukchi sites. The blades and handles of women's knives are found more often than others. The dimensions of these knives vary: from 6 to 14 cm in length, and judging by some of the wooden handles, 18 to 20 cm in length. The blade of women's knives was made from ground slate in the form of a half moon or a trapezoid. The handles of the knives could be made of wood, more rarely of antler or bone, and decorated.



#### Woman's knife.

Blade elongated and trapeziform with bifacially ground working edge; a wooden handle of bowed form with a longitudinal slot for seating the blade.

Found among early dwellings at Kivak. Surface find. Given to the museum by a resident of Provideniya, P. Cherepanov, in 1985.

Stone: slate; wood. 12.4 x 5.8 cm.

Cat. # 2781

The museum collection contains many slate blades of various forms, found at the sites of the Sireniki, Kivak, Avan, Enmelen, and Arakamchechen Island. A woman's knife from Sireniki with a decorated bone handle deserves special attention.



#### Woman's knife.

Blade trapeziform, with a ground working edge; bowed antler handle with longitudinal groove for seating the blade; line-drawn decoration on the lateral surfaces.

Found among early dwellings at Sireniki. Surface find. Purchased from a resident of Provideniya, A. Rozganov, in 1996.

Stone: slate; antler: carving on bone. 4.7 x 5.3 cm.

Cat. # 6076

Tanged knives, according to Rudenko, can be considered the most typical Eskimo knives. Such knives have a long bone, more rarely wooden, handle and stone blade.

In the museum collection the blades of tanged knives are of slate, flint, and silicified tuff. They can be divided into two types: single cutting edge and double cutting edge. Knives with a single cutting edge are rarely found and can be made of slate, unground tuff, or flint with large flakes taken off the whole surface. Knives with a double cutting edge of slate and unground tuff are found more frequently. Slate blades of both types of knives are always well ground over the whole surface and have well defined lateral facets. The slate blades of knives with a double cutting edge often have a pair of holes through the middle for fastening it to the handle by means of dowels.



**Blade with double cutting edge.**

Flat, wedge-shaped, with a well ground surface and lateral edges; two penetrating oval holes near the tang for fastening to the handle by means of dowels.

Found among early dwellings at Sireniki. Surface find. Given by the Sireniki Village Cultural Center in 1985.

Stone: slate. 11.0 x 4.0 cm.

**Cat. # 41**

The most typical handles of tanged knives are oval-flat and made from bone. They are elongated, and have a deep, narrow socket on one end—more rarely on two ends—for the blade tang. Handles can be divided into those with a complete socket and those with a longitudinal slot for taking out and replacing broken blades. Such handles were made of tubular or porous bone, reaching a length of 10 to 16 cm.



**Handle of a tanged knife.**

Elongated, oval in cross section, with narrow penetrating socket for seating the blade; elongated, longitudinal slot for changing blades in one end and seven small round holes in the other end.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen village, Yu. ETTYEGIN, in 1994.

Bone: antler. 14.0 x 3.5 x 1.5 cm.

**Cat. # 4756**

The other type, for thick slate blades, has long rectangular or pear-shaped wooden handles.



**Handle of a tanged knife.**

Elongated, pear-shaped, with slot for seating the tang of the blade and a hole through for a dowel. Preserved piece of the slate blade within the tang; fixed in the handle with a single bone dowel.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1986.

Wood; slate; bone. 15.5 x 2.9 x 2.2 cm.

**Cat. # 2660**

The construction of the compound handles of walrus tusk is interesting. These handles were made of two halves and have a slot in the end for a thin knife. Such handles were used also for burins for carving bone, in which steel blades were used.

The museum collection contains bone knives with single cutting edge and double cutting edge. These knives are long and narrow; some of the blades were made with three edges and have a hole in the end for hanging. Such knives could have been used for both hunting and everyday use.



**Bone knife.**

Elongated, triangular with ground working edges; hole through the end of the handle for hanging and an oval hole through a lateral edge for attaching a thong.

Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Sireniki, A. Nutaug'e, in 1993.

Porous bone. 20.2 x 2.7 cm.

**Cat. # 3075**

In more recent times, with the appearance of iron in Chukotka, with the stone and bone knives

that still were in use, metal knives began to be used frequently for butchering procured animals. These could be tanged, single-edged blades with a wooden or bone handle or large sickle-shaped fleshing knives with a wooden shaft, which were used for butchering whales.



**Iron knife.**

Elongated, sharp-pointed, with a single-edged tanged metal blade; equipped with a wooden handle with encircling grooves along its length.

Found among old dwellings of Uniyramkyt. Surface find. Received as a result of collection by the Provideniya Regional Museum Expedition in 1997.

Wood; metal. 21.7 x 2.6 cm.

**Cat. # 6342**



**Fleshing knife.**

Elongated, sickle-shaped, with conical tang and socket for hafting to a shaft.

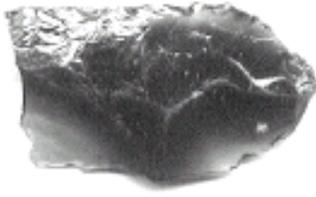
Found among old dwellings at Unazik. Surface find. Given to the museum by a serviceman of the border patrol, P. Vasil'ev, in 1990.

Metal. 19.0 x 4.0 cm.

**Cat. # 2682**

**8.2. Stone scrapers.**

Stone drawing-knives and scrapers were characteristic for working the skins of procured animals. The materials used to make scrapers was tuff, flint, and obsidian. A large flake with a partially worked upper part and a well trimmed lower working part was used. The form of such a scraper is wedge-shaped or rounded. The narrower upper part was set in a handle, while the broad lower part, with the edges sharpened, served for working animal skins. Among others encountered are small scrapers of obsidian and tuff with fine retouch.

**Stone scraper.**

Oval, with the application of distinct retouch on one edge and crude spalls removed from the remaining surface.

Found among early dwellings of Sireniki. Surface material. Given to the museum by I. Zagrebin in 1995.

Stone: obsidian. 3.5 x 2.0 cm.

Cat. # 5444

**8.3. Drawing-knives.**

To remove fat from skins the Chukchi and Eskimos used and continue to use special drawing-knives. These differ from scrapers in their large dimensions and smoothed working edges. Soft stone, most often argillaceous slate, was used to make them into a trapezoidal or rounded form. The upper narrow edge was set in a special wooden handle (Fig. 2a), while the lower curved, lightly ground edge served as the working surface of the drawing-knife (Fig. 2b).

**Drawing-knife blade.**

Flat, bent trapezoid with ground arc-shaped working edge and coarsely worked surface; narrower, thicker edge set in a special handle.

Found among early dwellings at Kivak. Surface find. Given to the museum by a resident of Provideniya, P. Cherepanov, in 1988.

Stone: argillaceous slate. 9.0 x 5.0 cm.

Cat. # 4539

**8.4. Bone scrapers.**

Women traditionally worked the skins and gut of walrus. They cleaned, removed the fat from, then dried the walrus gut to make rain coats for hunters. Bone scrapers served as the tools for removing the fat from the surface of the gut.

In the museum collection the bone scrapers were found at the sites of Sireniki, Unazik, Enmelen, and Chechen. Among the available scrapers, according to Rudenko, three basic types can be distinguished.

The first type is trough-shaped, in the form of a tiny scoop, with lightly sharpened edges.

**Bone scraper.**

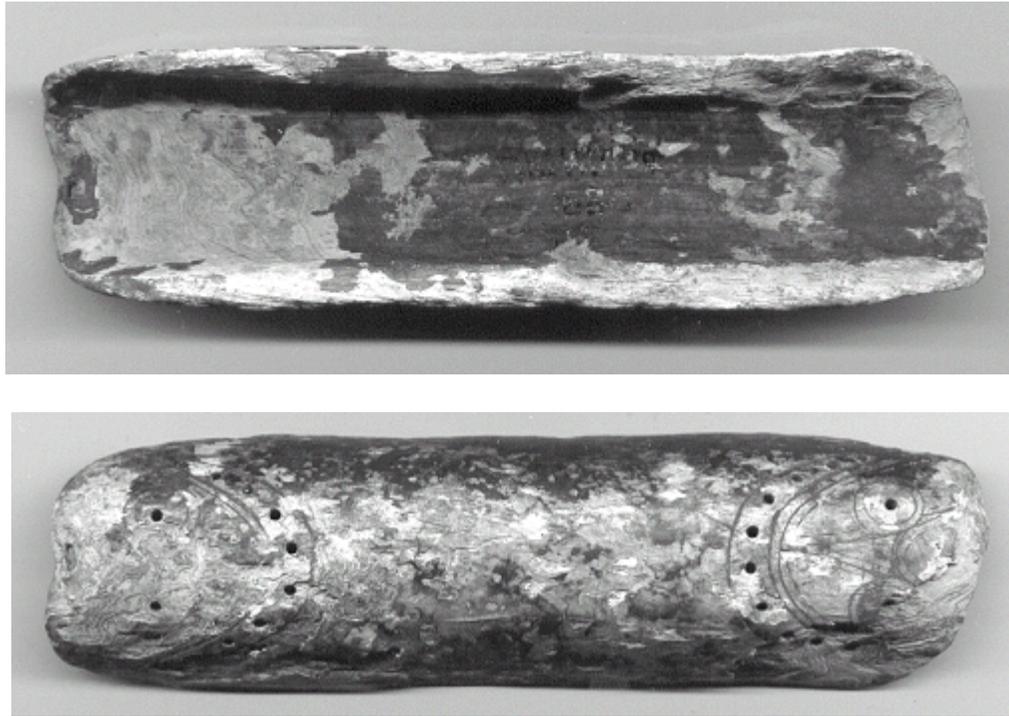
Elongated, trough-shaped, with sharpened terminal edges.

Found among early dwellings of Sireniki. Surface find. Given to the museum by a resident of Provideniya, A. Rozganov, in 1996.

Ivory: walrus tusk. 11.0 x 4.1 cm.

Cat. # 6078

The second type is shallow and gutter-shaped with two sharpened edges.



**Bone scraper.**

Elongated, gutter-shaped, with two sharpened working edges. On the outer edge, bent side decoration on the partially exfoliated enamel was preserved.

Found among early dwellings of Enmelen. Surface find. Given by a resident of Enmelen village, A. Tareev, in 1989.

Ivory: walrus tusk: carving on ivory. 12.8 x 3.3 cm.

**Cat. # 1685**

The third type is trough-shaped and asymmetrical with a sharpened working edge and a thicker edge lying opposite, which was used as the handle.



**Bone scraper.**

Trough-shaped, asymmetrical, with sharpened working edge and thickened edge lying opposite, which was used as the handle.

Found at the dismantling of an old home in the village of Novoe Chaplino. Surface find. Purchased for the museum from a resident of Novoe Chaplino, A. Numynkau in 1996.

Ivory: walrus tusk. 8.4 x 4.2 x 2.5 cm.

**Cat. # 5813**

In addition to the above-enumerated three basic types of bone scrapers, the museum collection includes bone scrapers in the form of tiny shovels from Sireniki. These tools also could have been used for working the skins of procured animals.

**Bone scraper.**

Elongated, small shovel, oval in cross section, with hollow and sharpened working edge, two grooves circumscribing it, and an asymmetrically located hollow, relative to the working edge, in the vicinity of the handle.

Found among early dwellings of Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Ivory: walrus tusk. 12.5 x 3.5 cm.

**Cat. # 3253**

## 9. Equipment for Sewing and Items of Clothing.

Women usually sewed clothing and the outer and inner covers for the yaranga, as well as the skin cover for the baidar, though men did some repair work and sewing of the baidar cover.

Chukchi and Eskimo women usually carried out all stages that preceded sewing, that is, the removal of the hide from procured animals, butchering the carcasses, working the hide, and then cutting and sewing it.

For removal of the hides they used and continue to use special women's knives—*ulyak* (Esk.) or *pekyl'* (Chuk.). Formerly these knives, with blades in the form of half moons, had slate blades, then later, blades of iron.

For cutting up skins they used tanged stone, later metal, knives with one or two cutting edges. The blade of such a knife was slightly bent and broader in the middle, with the initial part made in the form of a rod and usually seated in a wooden handle. This knife form evidently descended from earlier slate and obsidian “meat knives.” Such knives were described in detail in the preceding chapter, which outlines tools for butchering carcasses and working skins.

### 9.1. Needles and needle cases.

A variety of needles, awls, and punches can be assigned to tools for sewing. Formerly, bone needles were used for sewing, then metal ones. Bone needles could be of two types—with an eye and without an eye (rather with a notch) in the end for attaching the thread.

Bone needles in the museum collection come from the sites of Sireniki and Avan. Three-edged needles were the most practical for sewing thick hides, in particular for sewing the soles of boots.

Such needles usually had special cases—needle cases in the form of a bone, later metal, tube, the interior of which concealed the needle stuck into a small strip of hide or fabric. To the end of this strip could be attached bone, leather, or metal thimbles, and the needle case itself was hung by a thong from the belt or a bag by a special bone or iron clasp. The decorated bone needle cases from the village of Sireniki deserve attention.



#### **Bone needle.**

Narrow, sharp-pointed, with a notch on the end for the eye.

Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Sireniki village, A. Nutaug'e. Ivory: walrus tusk. 7.9 x 0.6 cm.

**Cat. # 3073**



**Bone needle.**

Elongated, sharp-pointed, with a round hole for the eye and a wedge-shaped notch in the heel.

Found among early dwellings at Avan. Surface find. Given to the museum by a serviceman of the border patrol, P. Vasil'ev. Bone. 14.0 x 0.6 cm.

Cat. # 4786

**Bone needle case.**

Tubular, with partially destroyed ends; decorated on the outer surface.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Tubular bone: carving on bone. 6.3 x 1.4 cm.

Cat. # 3298

**9.2. Awls and punches.**

Awls and a variety of punches were used to sew thick leather baidar covers and boot soles. Mostly bone punches and awls made of walrus bone or the ulna of a reindeer have been found.

The museum has a large collection of awls and punches—from simple, pointed splinters to those specially flattened in the middle for the fingers—from the sites of Kivak, Imtuk, Singak, Enmelen, Avan, and Sireniki. Rudenko believed that punches were sharpened on a special whetstone.

**Awl-punch.**

Flattened, elongated, pointed end with oval eye.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Ivory: walrus tusk. 11.5 x 1.2 x 0.7 cm.

Cat. # 3104

**Awl-punch.**

Oval in cross section, with sharpened point and hewed heel.

Found among early dwellings at Enmelen. Surface find. Given to the museum by the regional Pioneers' Home in 1985.

Ivory: walrus tusk. 6.9 x 1.8 x 1.6 cm.

Cat. # 2772

**Awl-punch.**

Bow-shaped, sharp-pointed. Made of tubular bird bone.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Tubular bone. 6.6 x 1.2 cm.

Cat. # 3305

### 9.3. *Threads of sinew.*

For sewing clothing and covers for yarangas and baidars, strong and durable thread was necessary. Such thread was made of sinew from reindeer and whales.

To make the thread, sinew was taken from the leg and back of reindeer, dried, divided, and carded into fine threads with a special comb, and then a few threads were rolled (twisted) to make strong thread.

Often the remains of baleen threads are found among the early sites; these threads were most likely used for sewing the side walls of containers. In the preparation of a baidar cover, when two split walrus skins are sewn together, maritime hunters usually use thread of whale sinew, and sew a special overlapping seam for greater durability and water-tightness.



#### **Sinew thread (fragment).**

Three reindeer sinew threads plaited into a braid. Might have served as a lace in fur clothing.

Received in the museum from the school museum of Nunligran village in 1991.

Reindeer sinew: braiding. 20.0 x 0.4 cm.

**Cat. # 2990**

### 9.4. *Combs.*

For the preparation of threads, as mentioned above, special combs were used. These combs could be made of bone or metal in more recent times. Sinew was carded with a comb, and separated into individual fine threads for use as insoles in boots. Grass was another element used to make insoles. The women also carded hair with these combs.



#### **Bone comb.**

Flat, trapeziform, with five teeth.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen village, Yu. Ettytegin, in 1994.

Ivory: walrus tusk. 9.0 x 3.4 cm.

**Cat. # 4758**

### 9.5. *Buttons and clasps.*

Connected with the preparation of clothing and equipment was the production of such necessary items as buttons, buckles, and clasps. In the early period these items were made of walrus and reindeer bone, which often have Puduk decoration on the outer surface. Clasps and buttons of wood have been found often, while the most modern of these items are made of metal. The items could be used for special meat sacks, bags for gathering roots and grass, belts, work bags for instruments and sewing accessories, and *pykh-pykh* floats.

In the museum collection buckles, buttons, and clasps vary in form, material, preparation, and assignment; they have been found in such early sites as Kivak, Naukan, Enmelen, and Sireniki.

**Wooden clasp.**

Oblong, with deep groove around the middle; deep longitudinal cracks visible. Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Wood. 4.5 x 1.5 x 1.2 cm.

Cat. # 3175

**Bone clasp-fastener.**

Oval in cross section, with central hole through it.

Found at the old site of Naukan. Surface find. Given to the museum by a resident of Provideniya, G. Pshenichnikov, in 1989.

Ivory: walrus tusk. 2.0 x 1.5 cm.

Cat. # 2767

**Buckle-clasp.**

Oval in cross section, with an oblong hole-lug on the lateral edge.

Found at the early site of Sireniki. Surface find. Given by the Sireniki Village Cultural Center.

Ivory: walrus tusk. 3.7 x 1.6 x 0.9 cm.

Cat. # 3133

Of special interest among the various fasteners in the museum collection are the decorated bone and antler buttons and buckles.

**Antler button.**

Flat, bent, oval, with central hole through the outside and a hole-lug on the inside; decoration preserved on the obverse side.

Found among early dwellings at Sireniki. Surface find. Came to the museum from Sireniki village.

Reindeer antler: carving on bone. 4.9 x 3.5 cm.

Cat. # 2715

**Bone button.**

Oval, flat, with central lug on the inside and decoration on the obverse surface.

Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Sireniki village, L. Fed'ko, in 1991.

Ivory: walrus tusk: carving on ivory. 6.0 x 3.7 cm.

Cat. # 2716

The museum collection also contains a button-clasp of unusually large dimensions, probably used on a meat sack.



**Button-clasp.**

Oval-rectangular, with a protuberance in the center of the obverse surface and a protruding lug on the inside.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen village, Yu. ETTYEGIN, in 1994.

Ivory: walrus tusk. 10.5 x 4.0 x 1.3 cm.

**Cat. # 4759**

## 10. Vessels and Domestic Utensils.

The Chukchee houses have little furniture. In the outer tent as well as in the inner room the people sit on outspread skins with their legs crossed, and crouch or lie flat on their stomachs (Bogoras 1904:184).

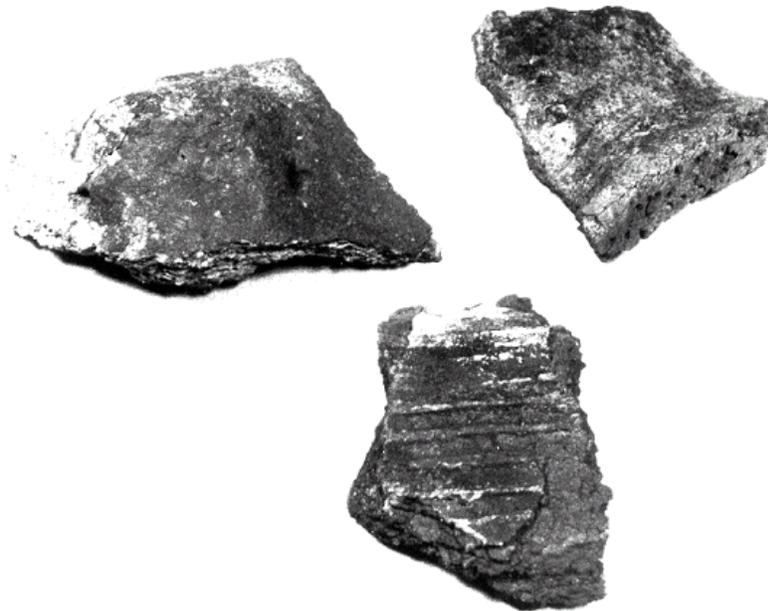
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The chief appurtenance of the inner room, of both the Reindeer and Maritime divisions of the tribe, is the lamp, which gives light and heat (Bogoras 1904:184).

Vessels in the museum collection are made of ceramics, wood, bone, and baleen, as well as stone and metal.

### 10.1. Ceramics.

Clay vessels and fragments are primary finds in early and traditional coastal sites, such as Kivak, Avan, Rudder, Yryrak-Plover, Uniyramkyt, and Arakamchechen Island. Ceramic vessels include lamps for lighting and heating the dwelling, a kettle for preparing food, and numerous fragments of lamps and their supports.



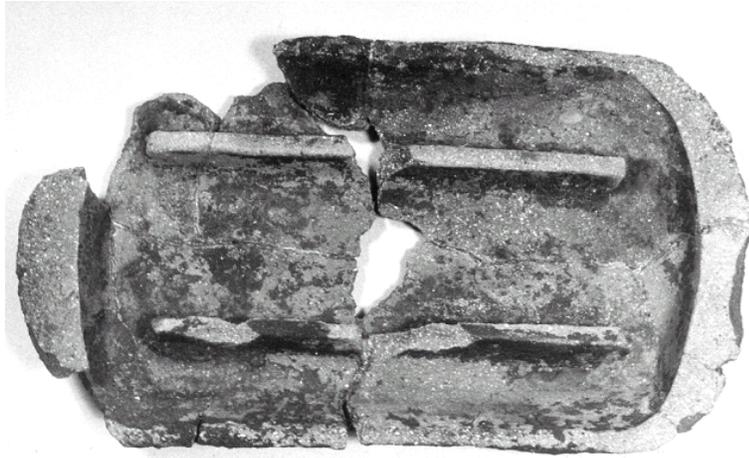
The old women still have a vivid recollection of the clay kettles which were used in former times (Bogoras 1904:186).

....

The ordinary lamp of the people, both Maritime Chukchee and Eskimo, is larger than that used by the Reindeer people. It has an oval, almost rectangular shape, and is made of clay. . . . For cooking, still larger lamps, with two bridges . . . are used. . . . The lamp is placed horizontally on a large wooden dish, and the kettle suspended over it from a peg (Bogoras 1904:185).

Such vessels were made of compact, moist clay, which was kneaded by hand to a plastic consistency. Then coarse grass or bird feathers could be added, as well as an admixture of sea sand. The top and edge of the green-ware were smoothed. The walls remained smooth, but sometimes they were decorated. The prepared green-ware was dried near a fire. Then a fire was made both inside and outside the vessel, which was fired for several hours. The poor quality of clay vessels continued from the Old Bering Sea stage to recent times, as evidenced by numerous charred fragments with the impregnation of fine-grained sand or grass.

The museum collection has large and small ceramic lamps with a bridge for a wick, as well as small stone lamps.



**Lamp.**

Oval, concave, with two parallel bridges for accommodating a wick.

Found at the old site of Uniyramkyt. Surface find. Given to the museum by a resident of Provideniya, G. Potapchuk, in 1997.

Ceramic. 42.0 x 24.0 cm.

**Cat. # 6319**



**Lamp.**

Oval, concave, with two separated tooth-like bridges for accommodating a wick.

Found at the old reindeer-herding camp in the Sireniki tundra at the mouth of the Nekkun River. Surface find. Given to the museum by a resident of Sireniki village, P. Nypagirgin, in 1993.

Stone. 23.0 x 12.5 cm.

**Cat. # 4050**

As Collins and Rudenko have pointed out, the Eskimos used special stamps with concentric and checker-board design for condensing the clay and applying decoration.



**Ceramics stamp.**

Flattened, elongated, with concentric circles and grooves on the working surface.

Found among early dwellings at Enmelen. Surface find. Given by a resident from Enmelen, L. Rodionova, in 1993.

Ivory: walrus tusk: carving on ivory. 18.5 x 5.5 x 2.2 cm.

**Cat. # 4053**



**Ceramics stamp.**

Flattened, elongated, with sloping parallel grooves on the working surface; end of handle damaged and lost.

Found among early dwellings at Kivak. Surface find. Given to the museum by V. Bychkov in 1997.

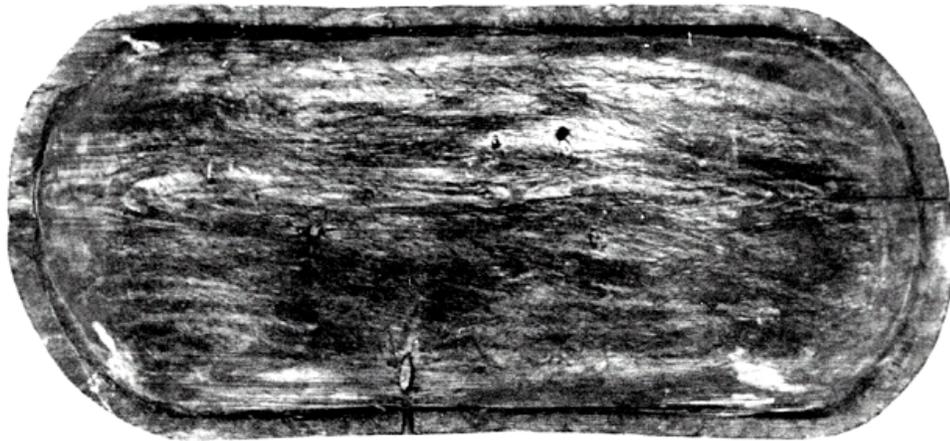
Wood. 25.0 x 6.2 cm.

**Cat. # 6199**

**10.2. Vessels of wood.**

Wooden trays and dishes, bowls, and dippers of various sizes are made of wood, and used by the Chukchee for the purpose of serving food and drink (Bogoras 1904:188).

Included in the Provideniya Museum collection are medium and small dishes for food, large flat family dishes for food and possibly butchering seal, wooden dishes hollowed from a single piece of wood, deep vessels and bowls for food and collecting urine, and small ritual basins, as well as the Alaskan type of cup for food with a flat bottom and walls in the form of a rim with a junction. The wooden vessels in the museum are from the sites of Plover, Rudder, Enmelen, and Kenishkhen.

**Wooden dish.**

Flat, subrectangular, with low sides along the edge.

Found at the old village of Plover. Surface find. Given to the museum by I. Zagrebin in 1998.

Wood. 92.5 x 34.0 cm.

**Cat. # 6952**

**Wooden dish.**

Oval, concave, with thin walls with spalls and cracks along the rim.

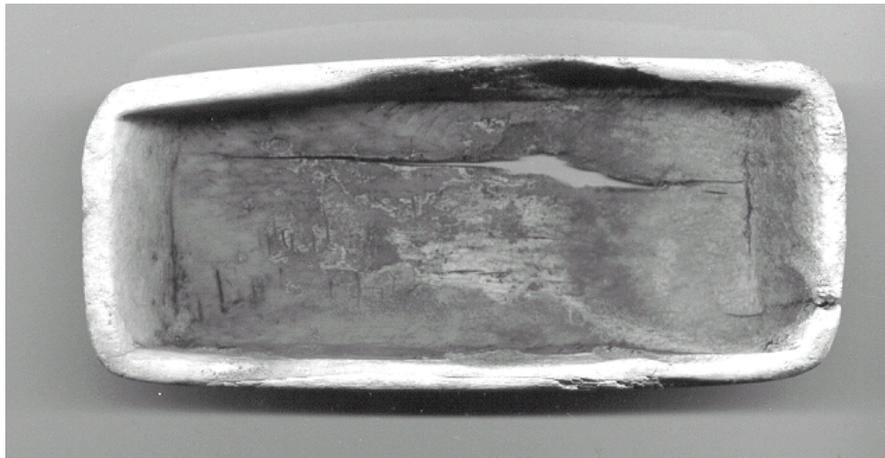
Found at the old site of Kenishkhen. Surface find. Given to the museum by V. Bychkov in 1998.

Wood. 29.0 x 6.0 cm.

**Cat. # 6933**

### 10.3. Bone vessels.

Such vessels had a dual assignment: utilitarian—for preparation and storage of food, and ritual—for carrying out ceremonies connected with “feeding the spirits.” A vessel could be made of walrus tusk, or the vertebra or scapula of a whale. Ritual vessels were made for the most part of walrus bone, were shallow, and had a rectangular or oval bottom.



#### Ritual basin.

Rectangular, with oval rim walls narrowing toward the bottom, which is flat, slightly concave with a continuous longitudinal crack.

Found among early dwellings in Sireniki. Surface find. Given by the Sireniki Village Cultural Center in 1985.

Ivory: walrus tusk. 13.9 x 6.0 x 2.5 cm.

Cat. # 4379

The museum collection contains bone vessels for preparing and preserving food; these include a large bowl hollowed from a bowhead whale vertebra, a mortar for breaking up bones and frozen meat, butchering slabs from scapulae and flat vertebrae of whales, and a support for a lamp. All were found at the sites of Sireniki, Tyflyak, Kivak, Avan, and Arakamchechen Island.



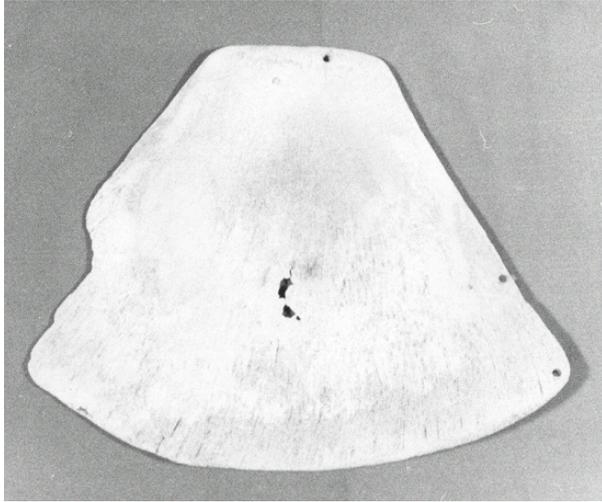
#### Whale vertebra bowl.

Oval with high walls and flat bottom. Hollowed from a bowhead whale vertebra.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center in 1985.

Whale vertebra. 34.0 x 22.0 cm.

Cat. # 7

**Butchering slab (cover).**

Flat, trapeziform, with three holes through the edges and two holes in the center that were caused by wear and tear. Could have been used for preparing food or as a cover for meat vessels.

Found among old dwellings at Kivak. Surface find. Given to the museum by G. Zagrebin in 1995.

Whale scapula. 36.5 x 44.5 cm.

**Cat. # 5282**

**10.4. Vessels of baleen.**

Among numerous slate points and ceramic fragments, vessels of baleen have often been found at the old sites. The majority of these pieces are crushed, with the bottom lost, walls of such vessels

sewn by strips of baleen.

Large vessels served for preserving water, collecting blood, and keeping dried goods, and small vessels were used to store trinkets and tobacco. The walls of such vessels were made from an ovally curved, broad strip of baleen, while the ends were joined by an overlap sewn from this same baleen. The oval bottoms were made of wood. Some snuff boxes and small boxes for trinkets might have a bottom of walrus bone.

The museum collection of vessels and vessel bottoms come from the early and traditional sites of Avan, Sireniki, Kivak, and Arakamchechen Island.

**Vessel wall (pail).**

Oval, like a broad band of baleen rolled into a ring and joined by sewing along the edges. At least one layer of baleen came off the rim and inner surface.

Found in old sites on Arakamchechen Island. Surface find. Given by a resident of Novoe Chaplino, L. Arat, in 1997.

Baleen: sewing. 20.5 x 27.5 cm.

**Cat. # 6169**

Vessels for carrying and holding water were equipped with bone, antler, or wooden handles, which were fastened to the vessel by a band of baleen.



**Vessel handle.**

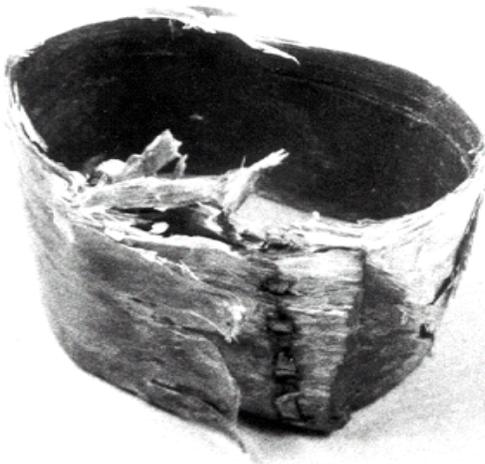
Curved, elongated, oval in cross section, with four depressions for the fingers and holes through the ends for fastening the handle to the vessel; large exfoliating strip of enamel; damage to the holes.

Found among early dwellings of Sireniki. Surface find. Given by the Sireniki Village Cultural Center.

Ivory: walrus tusk. 11.0 x 1.8 cm.

**Cat. # 3245**

For keeping tobacco, the Eskimos of the Chukchi coast made special snuff boxes, using a technique similar to how they made vessels. Such snuff boxes are usually about 7 cm in diameter and 5 cm high.



**Snuff box.**

Oval, with wooden bottom. Wall rolled in an oval ring and sewn in an overlap along the edges by a strip of baleen.

Found among early dwellings at Kivak. Surface material. Given to the museum by a resident of Provideniya, P. Cherepanov.

Baleen; wood. 4.2 x 4.7 x 3.2 cm.

**Cat. # 2708**



**Vessel bottom.**

Flat, oval, with traces of rough trimming of the flat surfaces.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Wood. 8.5 x 5.6 cm.

**Cat. # 3161**

### 10.5. *Metal vessels.*

With the arrival of Russians and Americans to the coast of Chukotka during the seventeenth to nineteenth centuries, a variety of metal vessels began to appear among the Native residents. Teapots, mugs, plates, pails, and basins were traded by the Cossacks, merchants, and whalers for walrus ivory, meat and skins of reindeer, and the skins of wild animals. Successful harpooners, who had been hired by American whalers for the summer season, were paid with these metal “treasures.”

The museum collection contains well preserved items, but with significant deformation, including a copper teapot, small iron dishes with an enamel coating, a tin teapot-boiler [for steeping tea leaves], a deep copper dish, and a small copper pail for water, from the sites of Naukan, Sireniki, and Plover.



#### **Metal dish.**

Flat, rounded, with shallow concave edges. Wall deformed, with hole through it. A trace of the manufacturer's trademark visible on inside of bottom.

Found at the old site of Naukan. Surface find. Given to the museum by V. Bychkov in 1997.

Colored [copper, tin, or the like] metal.

31.0 x 7.5 cm.

**Cat. # 6349**



#### **Metal teapot.**

Oval, with bad deformation of the sides. Handle, spout, and lid.

Found in the vicinity of Sireniki. Surface find. Given to the museum by a resident of Provideniya, A. Rozganov, in 1998.

Colored metal. 20.0 x 27.0 cm.

**Cat. # 6928**

### 10.6. Spoons and scoops.

Spoons and spoon-like items in the museum collection are of two types. The first type consists of fine, elongated bone spoons with handles frequently sharpened on the end. The second type comprises flat, dish-shaped forms with short or long curved handles. Most of these spoons were made from walrus and reindeer bone and could serve both for receiving food and for carrying out ceremonies connected with “feeding the spirits.”

In the museum collection spoons and spoon-like objects come from the sites of Enmelen, Naukan, Kivak, Sireniki, Avan, and Arakamchechen Island.



#### **Bone spoon.**

Elongated, with handle pointed on the end. Spoon slightly concave, elongated oval.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Provideniya, M. Fedorov, in 1993.

Ivory: walrus tusk. 17.5 x 2.4 cm.

**Cat. # 4074**



#### **Bone spoon.**

Flat, of dish-shaped, slightly concave form; handle long and curved with a pointed end. Oval depression at the base of the spoon handle.

Found among early dwellings at Enmelen. Surface find. Given to the museum by a resident of Enmelen village, Yu. ETTYEGIN, in 1994.

Bone: reindeer antler. 19.5 x 4.6 cm.

**Cat. # 4752**

For eating and drinking the Eskimos and Chukchi used a variety of wooden and bone ladles and scoops. Such scoops have a dish-shaped or elongated oval form with short handles, most of which have been preserved. These items usually made a hole through the handles for hanging them in the dwelling or on a hunter's or reindeer herder's belt.

The majority of scoops in the museum collection have spalling along the rim and lost parts

because the wood from which these items were made has cracked and split over time as a result of much use.



**Wooden ladle.**

Rounded, concave, with short handle having a thickened end. Working part has continuous longitudinal cracks and one-third of the surface split. Could have been used for drinking.

Found at Enmelen. Surface find. Given to the museum by a resident of Enmelen village, L. Rodionova, in 1993.

Wood. 22.2 x 7.5 x 15.0 cm.

**Cat. # 4054**

A ladle that was made of a branch of reindeer antler was often used to take meat from a kettle.

Of special interest in the Provideniya Museum collection are spoons-scoops made of reindeer bone; these have several parts and are sewed together with baleen. This was done in order to provide such scoops with a large working surface.



**Antler spoon-scoop.**

Flat, oval, elongated, with concave spoon, made from several pieces of reindeer antler and sewn with baleen. Handle end and hole for hanging split off and lost.

Found among early dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Bone: reindeer antler; baleen. 17.0 x 7.0 x 3.9 cm.

**Cat. # 3323, 3324**

### 10.7. Other domestic utensils.

A multitude of interesting household objects are connected with the gathering of animal and plant food, as well as the preparation of food among the Native residents of Chukotka.

The museum collection includes such objects as a sack for gathering roots and plants, a bag from the bootleg of a summer boot, a stone hammer for breaking up bone and frozen meat, stone mortars and pestles, meat hooks, a combine (this is a type of dish with a lid; one places a branch with berries in the dish, closes the lid, and pulls; the berries are detached from the branch and remain in the dish) for gathering berries, and other objects (see Appendix 2) from the sites of Kivak, Sireniki, Yanrakynnot, Enmelen, and Arakamchechen Island.



#### Hook.

Oval in cross section, with pointed barb and oval hole through the base for hanging. Could have been used for hanging kettles or meat.

Found among old dwellings at sites on Arakamchechen Island. Surface find. Given to the museum by a resident of Provideniya, N. Mymrin, in 1985.

Porous bone. 13.7 x 4.1 x 1.3 cm.

Cat. # 4253



#### Woman's bag.

Sewn in the shape of a small sack, narrower at the opening, has cord thongs sewn on for carrying. The work of Ul'veneut. Given to the museum by a resident of Enmelen, Ul'veneut, in 1989.

Leather; reindeer hide; cotton cord: thread. 38.0 x 28.5 cm.

Cat. # 2696

## 11. Means of Transportation.

### 11.1. Kayak and baidar.

Contained in the museum collection is a unique piece found at the early site of Sireniki – a model kayak carved from a walrus tusk. The model confirms that by the Old Bering Sea stage of Eskimo culture, such a type of covered boat with a hatch for the paddler was being used.



#### Model kayak.

Elongated, oval in cross section, with hollowed out hole for the paddler in the middle and an oval slot through the bow for attachment of the bowline. Part of stern damaged and lost.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

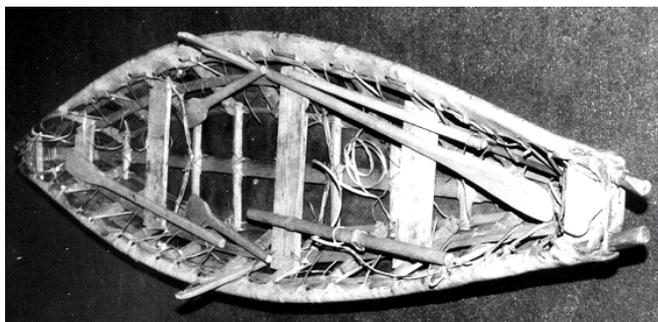
Ivory: walrus tusk. 14.7 x 2.9 cm.

Cat. # 2663

Maritime hunters of the Chukotka coast widely used, along with the one-place and two-place kayak, the large open baidar. The construction of such a boat in antiquity was little different in principle than the construction of the modern baidar. In the early period, all the parts and attachments were made only of natural materials. The frame of the baidar was made from driftwood. The bends of the keel were integral parts in the construction of the baidar. These bends were selected beforehand and gathered from specially bent tree roots.

Leather thongs made from bearded seal skin joined the parts of the frame. On the stern, from the lateral ribs to the keel beam on two sides, special thong “compensators” were attached, which made the boat stable and elastic. The baidar cover was always made from several skins of female walruses, previously soured, and then split into two parts. One-and-a-half or two split skins, which were sewn together with whale sinew in a waterproof seam, usually went onto a baidar of 6 to 8 m in length. The damp cover was stretched onto the frame and attached by raw bearded seal thongs. Up until the appearance of outboard motors, maritime hunters used the baidar for transportation only with sails and oars; these boats were models for the so-called “child’s toy.” Bogoras and Rudenko supposed that such “toys” and model boats, oars, duck-shaped objects, and wooden birds served in cult ceremonies during family festivals.

Included in the museum collection is a model baidar with hunting equipment (harpoon, meat hook, and two pairs of oars for rowers). In 1991 the model was made by a hunter from Sireniki, O. Isakov, upon the request of the museum.



#### Model baidar.

Open type of skin boat in the form of an elongated shell. Frame assembled from wood and joined by thongs; covered with bearded seal skin; has three thwarts, two pairs of oars, toggling harpoon with shaft, meat hook, and two oarlocks for the rowers' oars.

Made by a hunter from Sireniki, O. Isakov, in 1991.

Newly made. Purchased for the museum from a resident of Sireniki, O. Isakov.

Wood; bearded seal skin; metal; baleen. 224.0 x 63.0 x 24.0 cm.

Cat. # 2841

A souvenir model baidar is also in the museum collection; it includes a rower and hunting equipment. I. Nagalyuk (now deceased), who was born at the old village of Avan, skillfully made and detailed this piece.

### 11.2. Boat hooks.

Several types of boat hooks made of walrus tusk differ according to the way they attach to the shaft. The first type of boat hook has a long oblong slot by which it is attached to a shaft. The second type of boat hook has two to three holes, each with a diameter of about 1 cm through the base, by which leather thongs attach it to a shaft.

According to Nelson and Murdoch, such boat hooks could be used for mooring boats to rocky shores or to the edge of the ice, or as a hook for dragging pieces of whale and walrus blubber and meat.



#### Boat hook.

Sharp-pointed, elongated, with a barb four-sided in cross section, an oblong hole through it, and a platform for attachment to a shaft.

Found among early dwellings at Enmelen. Surface find. Given to the museum by the regional Pioneers' Home in 1985.

Ivory: walrus tusk. 8.9 x 2.0 x 1.0 cm.

Cat. # 4312



#### Boat hook.

Sharp-pointed, elongated, with the barb oval in cross section, three holes through it, and a special platform for tying to a shaft.

Presumably found at the early site of Sireniki. Surface find. Given to the museum by the Provideniya Bay customs house in 1994.

Ivory: walrus tusk. 6.0 x 1.7 x 1.2 cm.

Cat. # 4831

### 11.3. Ice creepers.

For movement over the ice and ice-covered surfaces, hunters of the Chukotka coast used plates of walrus bone with cleats on the bottom. Such creepers or ice walkers were made in two basic types: permanent and inserted. The permanent creepers were oblong to rectangular with a longitudinal slot through the middle and from one to seven pairs of projections carved symmetrically to each other. Pairs of holes were made through the base of the creepers on both sides for tying them with thongs to the sole of the boot.

The other type of creeper had pegs, usually three asymmetrically located, inserted into a flat, rectangular bone plate, which had holes through the edges for tying to the boot soles.

Both types of ice creepers are in the museum collection; these items were found at the sites of Rudder, Enmelen, Sireniki, Imtuk, and Arakamchechen Island.

**Permanent ice creepers.**

Bone plate with rectangular, longitudinal slot in the middle, six parallel pairs of projections and two pairs of holes through the edges for tying the creepers to the footwear.

Found among early dwellings at a site on Arakamchechen Island. Surface find. Given to the museum by a resident of Provideniya, N. Mymrin.

Ivory: walrus tusk. 10.0 x 3.0 x 1.0 cm.

**Cat. # 2651**

**Inserted ice creepers.**

Subrectangular antler plate with three inserted pegs and two pairs of holes through the edges for tying the creepers to footwear.

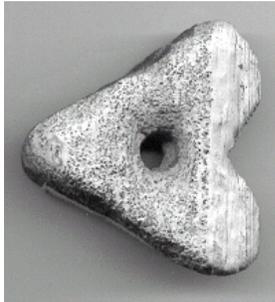
Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Provideniya, V. Dronov, in 1990.

Bone: reindeer antler. 7.5 x 2.6 cm.

**Cat. # 3382**

**11.4. Fasteners or handles.**

Fasteners of walrus tusk were used for comfortably grasping traction thongs. Such thongs were usually used for towing a boat or for pulling a boat or the carcass of a procured animal onto shore. The museum collection includes triangular handles with a hole through the center for the thong.

**Thong fastener.**

Triangular, with a hole through the center and a deep hollow in the upper part for attaching a thong. Continuous exfoliation of enamel visible.

Found among early dwellings at Sireniki. Surface find. Given to the museum by a resident of Sireniki village, A. Nutaug'e.

Ivory: walrus tusk. 4.8 x 2.5 cm.

**Cat. # 3076**

The museum collection also has fasteners in the form of short rods with a groove around the middle for attaching a thong.

**Thong fastener.**

Oval in cross section, with conical ends and deep groove around the middle for attaching a thong.

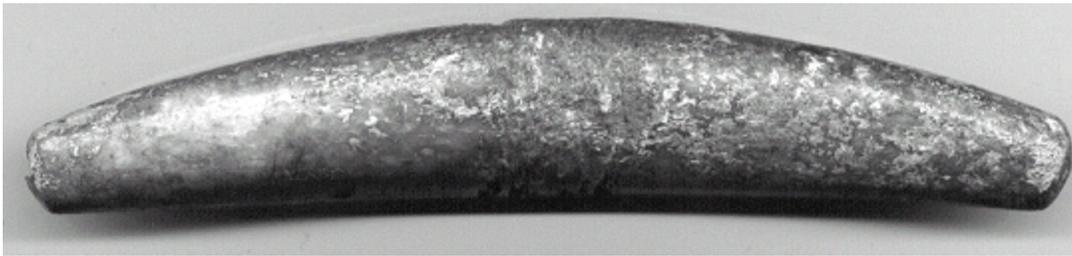
Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Ivory: walrus tusk. 6.0 x 1.9 cm.

**Cat. # 3313**

A third type of thong handle has long cylindrical rods or plates with a broad round band of notches in the middle or several holes for attaching loops of the thong.

Such handles in the museum collection come from the sites of Sireniki and Arakamchechen Island.

**Thong fastener.**

Long, cylindrical, bowed, with broad band of circular cuts for attaching a thong.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

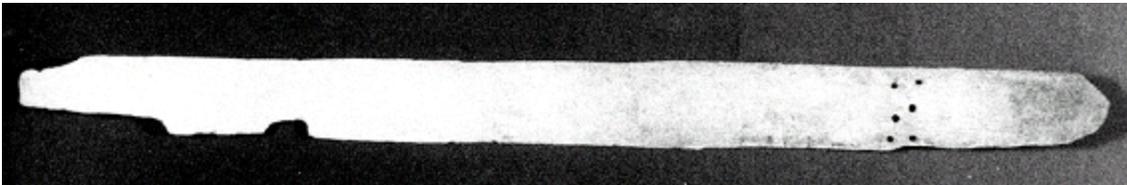
Ivory: walrus tusk. 14.1 x 2.2 cm.

**Cat. # 3162**

**11.5. Sleds.**

As a result of excavations by Collins on St. Lawrence Island and Rudenko on the coast of the Chukchi Peninsula, it has been established that dog traction in these regions appeared rather late – 200 to 300 years ago. There are two kinds of dog sleds: long cargo sleds and light passenger sleds. Cargo sleds are usually longer and have thicker runners and stanchions. The runners of cargo and passenger sleds had soles made of bone strips attached by a countersunk seam or wooden nails. Later, iron strips were used. In winter, bone soles did not provide desirable glide, so the soles were often covered with ice.

The bone, wooden, and iron soles in the museum collection were found at the early sites of Kivak, Keleren in Penkignei Bay, Rudder, Arakamchechen Island, Enmelen, and Avan.

**Bone sled runner sole.**

Flat, elongated, with slightly bent end; has three pairs of holes with a groove between each pair for a countersunk seam that was used for attachment to the runner.

Found among old dwellings at Kivak. Surface find. Collected by the Provideniya Regional Museum in 1997.

Whale bone. 89.0 x 7.7 cm.

**Cat. # 6283**

**Metal runner sole.**

Long, thin strip, with twelve holes for attachment to the runner.

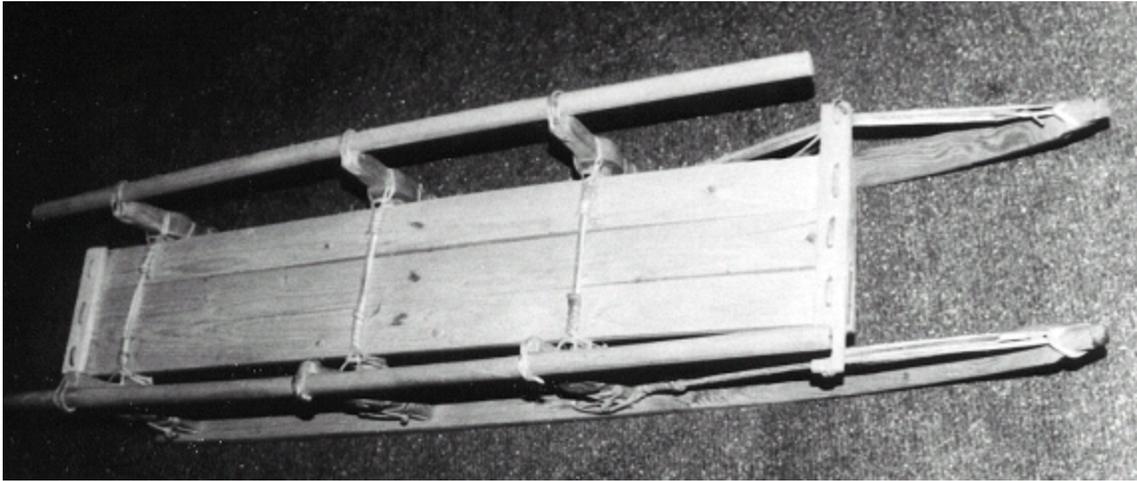
Found at the old reindeer-herding camp of Keleren in Penkignei Bay. Surface find. Collected by the Provideniya Regional Museum in 1995.

Metal: drilling. 110.0 x 4.7 cm.

**Cat. # 5331**

Birch was the most suitable material for runners for it could endure severe cold. Larch, oak, American pine, and birch were used to construct the sled because they were abundant on the Arctic coast. Residents of the Pacific shore traded for material from the whalers or brought it from the shores of Alaska.

In the museum collection several parts of dog sleds – traction blocks and yokes from the late Punuk period – have been collected from various sites. Sleds in the museum repository include a model of a passenger sled made by a hunter from Sireniki, O. Isakov, and a souvenir model of a sled by I. Nagalyuk.



**Model riding sled.**

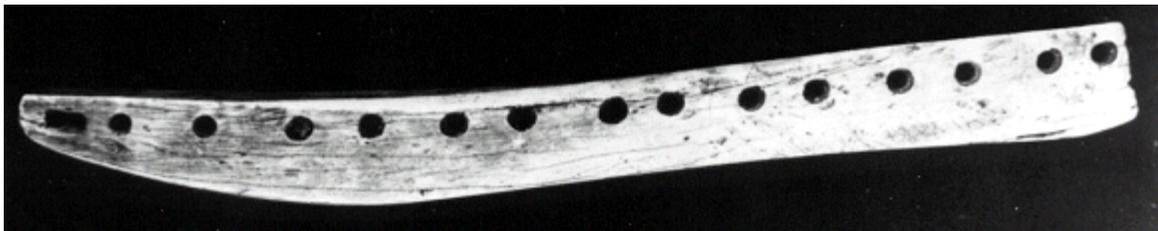
Frame made from wood assembled with thongs; has three stanchions and slightly bent front end of the runners. Made by a hunter from Sireniki, O. Isakov, in 1991. Newly made. Purchased from a resident of Sireniki, O. Isakov. Wood; bearded seal hide. 101.5 x 25.3 x 20.5 cm.

**Cat. # 2842**

**11.5.1. Small sleds.**

Runners for small sleds have been found frequently at early sites on the coast of Chukotka. The sleds usually have two runners made from whole walrus tusks. The runners found are heavy and crudely worked, or light, narrow, and carefully made.

The museum collection contains runners for small sleds of various types that were found at the sites of Avan, Kivak, Yanrakynnot, Arakamchechen Island, Vankarem, Sireniki, and Nunligran. Heavy runners usually had a continuous row of holes along the upper edge, which were used for fastening wooden crossbars with thongs or baleen.



**Small sled runner.**

Flat, elongated, with seven pairs of holes along the upper edge, which were used for attachment of the wooden crossbars, and an oval hole in the front for attaching the towing thong. Made of a single walrus tusk with bilateral modification of the surface.

Found upon renovation of Apartment #5, d. 13 ul. Dezhneva, Provideniya. Surface find. Given to the museum by a resident of Provideniya, L. Orlova.

Ivory: walrus tusk. 50.0 x 5.0 x 2.5 cm.

**Cat. # 2642**

The narrow, light runners had an expanded upper edge and two or three pairs of holes for attaching the crossbars.

**Small sled runner.**

Flattened, sharp-pointed, with concave upper edge and six holes along the upper edge for tying the wooden crossbars.

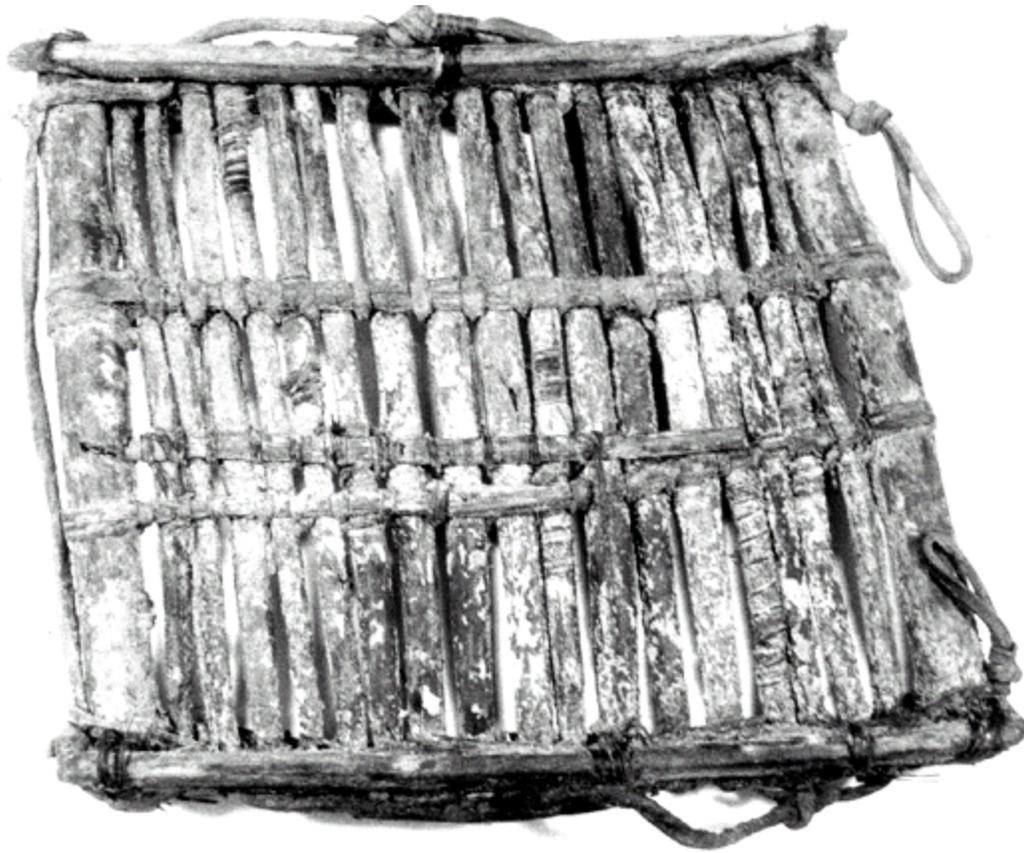
Found among early dwellings at Kivak. Surface find. Given to the museum by a serviceman in the border patrol, P. Vasil'ev, in 1990.

Ivory: walrus tusk. 50.0 x 5.0 cm, 52.0 x 5.0 cm.

**Cat. # 2673**

The third type of light, narrow runner, included in the museum collection, differs from the others by the presence of an unbroken series of holes on the upper edge. According to Rudenko, it is known that from the Old Bering Sea to the late Punuk period coastal residents used such sleds to manually convey baidars and loads of meat over the ice.

Of special value to the museum collection is a fully assembled light sled, found in the cultural layer of the early site at Sireniki. The runners of small sleds such as this one are of the narrow, light type with a continuous series of paired holes on the upper edge, numbering 23 holes and 19 wooden crossbars fastened with baleen. The crossbars of the small sleds were pressed from above by wooden bars and tied with baleen for a strong attachment. All the crossbars were fastened by two parallel lines of thong shackles, and to the front crossbar were tied two thong loops for towing, the ends of which were threaded and tied again in several places along both sides of the runners. The small sleds were found in the coastal slope at a depth of about two meters below the surface in permafrost, which aided in their preservation.

**Small sled.**

Rectangular, with runners of walrus tusk with a continuous series of paired parallel holes in the upper edge, wooden crossbars oval in cross section, and bindings of raw bearded seal hide and baleen.

Found among early dwellings at Sireniki. Surface find. Purchased for the museum from a resident of Sireniki, A. Kanikhin, in 1992.

Ivory: walrus tusk; wood; bearded seal skin; baleen. 49.0 x 49.0 cm.

**Cat. # 2837**

**11.6. Ice staffs.**

Nelson describes the ice staffs of Alaskan Eskimos used for moving on thin ice and tundra. The coastal residents of Chukotka also occasionally used such staffs; bone points have been found in old sites on Arakamchechen Island and at Getlyanen Lagoon. The points were made of walrus bone, are sharpened on the end, and have surrounding grooves or a special platform for attachment to the ice staff shaft. The form of such points may be likened to an oval or rectangular projectile point.

**Ice staff point.**

Pointed, conical, with deep groove or notch around the base of the point for attachment to a shaft.

Found among early dwellings at a site on Arakamchechen Island. Surface find. Given to the museum by a resident of Provideniya, A. Gaevskiy.

Ivory: walrus tusk. 9.0 x 3.0 cm.

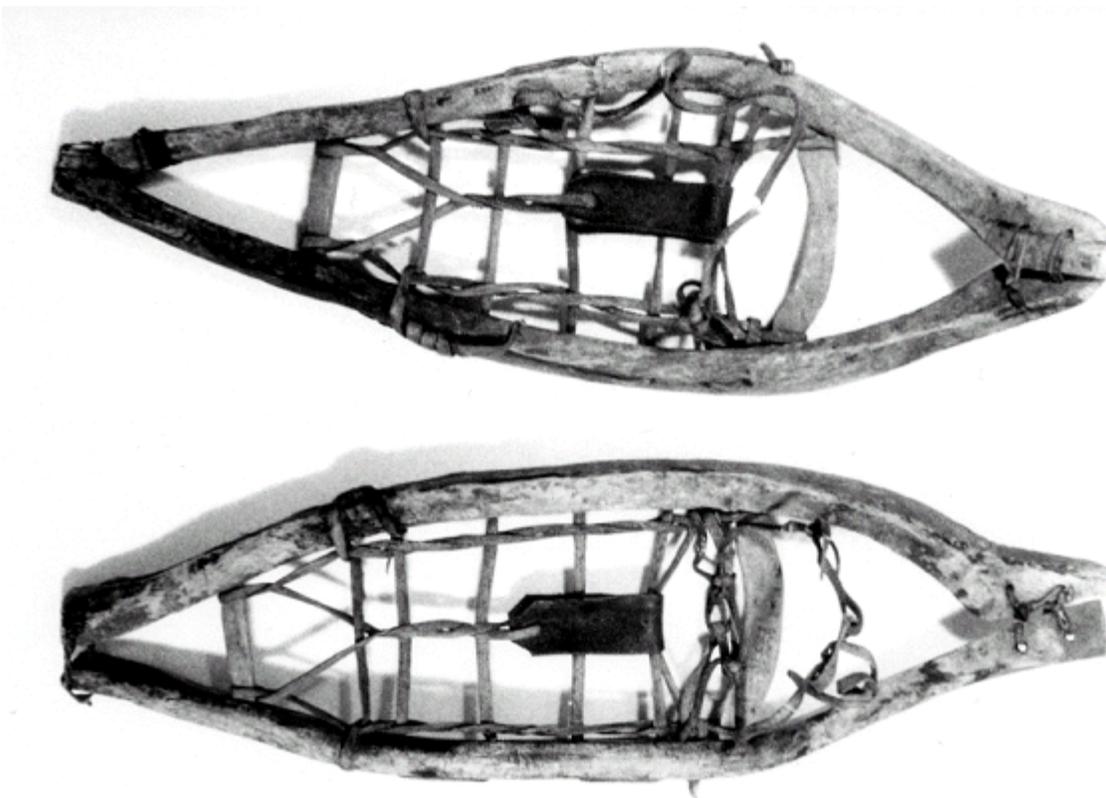
**Cat. # 6133**

In more recent times ice staffs have metal points. Examples of this type of ice staff, which were found at the traditional site of Avan (see Fig. 3), are included in the museum collection.



The museum's collection contains several examples of means of transportation, including a variety of parts from dog and reindeer sleds, baidar equipment, and other small items (see Appendix).

Skis – “crow’s feet” snowshoes – are worth mentioning as an interesting means of transportation.



**Skis-snowshoes.**

Elongated and oval frame, consists of two halves joined by leather thongs; two wooden crossbars close to the ends for fastening the two halves of the frame. Frame span stretched tight by leather thongs in the form of a net; attachment for footwear made of bearded seal hide. Used for traveling in deep snow.

Given by the Sireniki Village Cultural Center in 1985.

Wood; bearded seal skin. 62.5 x 19.5 cm.

**Cat. # 21**

## 12. Items of Fighting Equipment.



Bone slats of armor are the fighting equipment of the Chukchi and Eskimos most often found in the old sites. The museum collection's armor slats are from Sireniki, Enmelen, and Arakamchechen Island. Such slats have been found, judging by the publications of Bogoras and Rudenko, along the whole coast of the Chukchi Peninsula. They are usually rectangular in form and have two to four rows of symmetrically arranged holes for tying the slats together with leather thongs. The researcher Khaug concludes that bone slat armor appeared in America from Asia and that its route can be traced from Japan to the northeast through the Ainu, Gilyak, and Chukchi, across Bering Strait and the intermediate islands to the western American Eskimos.

Both on the Chukchi Peninsula and St. Lawrence Island armor slats appear dated only from the late Punuk period. Collins concludes that protective arm guards, arrow points of walrus tusk, reinforced bows, and slat armor appeared among the Eskimos during a period of incursion into northeastern Chukotka of hostile nomadic tribes and the northward spread of improved weapons.



### Slat armor (below).

Rectangular, flat, with concave surface and three pairs of symmetrical holes along the edges for the passage of thongs. Found among early dwellings at Enmelen. Surface find. Given to the museum. Bone: reindeer antler. 12.0 x 4.0 cm.

Cat. # 1679



### Slat armor.

Flat, rectangular, bowed along the long axis, with three pairs of symmetrical holes for passage of leather thongs. Found at the old site of Vankarem. Surface find. Given to the museum by a resident of Provideniya, A. Memel, in 1996. Bone: reindeer antler. 18.8 x 2.7 cm.

Cat. # 6018

Until the nineteenth century the preferred weapon of Chukotka was the bow and arrow. The compound bow, made of two pieces of wood, larch or birch, was different from the simple bow, made from a single piece of wood wrapped with birch bark or sinew for more resilience. The arrows for bows were equipped with bone, stone, or iron points.

The Chukchi also used the spear as a hunting and fighting weapon. The points of such spears were made of iron, though in earlier times, of stone or bone. During a battle, as Bogoras points out, fighting with spears was the most widespread kind of combat. Broad knives could be used as a defensive weapon.

After the arrival in Chukotka of Russian Cossacks and Americans in the seventeenth to nineteenth centuries flintlock and percussion muskets, and later, rapid-fire guns with rifled barrels began to appear among the Chukchi and Eskimos.

The museum collection contains an American percussion musket from 1823 made by the Springfield Company (see Fig. 4).



### 13. Cult Objects, Small Plastic Arts, Ornaments.

Various small objects, zoomorphic and anthropomorphic images, small ornaments, and complex amulets are among the finds that the museum often handles. These objects, of course, do not create a complete picture of the spiritual world of the Bering Strait residents, but according to available publications and legends it is possible to determine the assignment of many of these objects.

It is possible to distinguish amulets and talismans, which were destined for propitiating the gods of hunting, of the sea, of the tundra, and of the yaranga. Amulets and protectors in the form of pendants made of bear's teeth, walrus's teeth, and baleen belong to this group. Ritual basins were used to feed the spirits of the sea and animals.



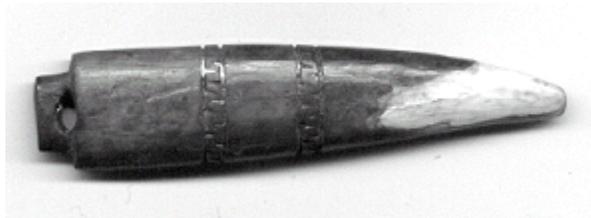
**Ritual basin.**

Subrectangular, with hollowed out recess and side walls; a trace of fresh chipping on the rim. Could have been used for “feeding the spirits” during family festivals.

Came to the museum from Enmelen. Given by a resident of Enmelen, L. Rodionova.

Wood. 15.0 x 8.0 x 4.6 cm.

**Cat. # 4052**



**Pendant.**

Elongated, wedge-shaped, with specially carved lug in the base of the pendant for hanging and two parallel decorated bands around the pendant.

Found among old dwellings at Sireniki. Surface find. Given to the museum by V. Bychkov.

Ivory: walrus tusk. 6.2 x 1.0 cm.

**Cat. # 3738**

When conducting family festivals and rituals, the coastal residents also used such artifacts as models of kayaks, boats, oars, bows, sleds, and tiny wooden and bone birds. These objects hung in the dwelling during the festival.



**Model bow and arrow.**

Flat, arc-shaped, with notches in the ends for fastening the bowstring. A transverse fracture in the middle of the body. Arrow elongated with a pear-shaped point.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Village Cultural Center of Sireniki. Wood. 19.5 x 1.2 x 0.4 cm.

**Cat. # 3176**



**Model oar.**

Flattened, elongated, with short handle. Used as a ritual object during festivals.

Found among old dwellings in Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Wood. 8.3 x 1.6 cm.

**Cat. # 3152**

**Duck-like object.**

Miniature sculpture of a duck, with flat base, oval body, and head carved in detail. Might have served during ceremonies or as a child's toy.

Found at the old site of Naukan. Surface find. Given to the museum by a resident of Provideniya, G. Pshenichnikov.

Ivory: walrus tusk: carving on ivory. 2.0 x 1.5 cm.

**Cat. # 2771**

Sacred objects hold a special place among the Asiatic Eskimos. Such objects include: skulls of walrus with tusks and images of whales as the basic kinds of prey, decorated plates, and stones or whales' skulls standing alone outside the dwelling.

The master of the dwelling or the leader of a baidar crew also used a drum, ritual staffs, and smoking pipes when conducting ceremonies. Images of animals and people, skillfully executed in ivory or wood, merit attention.

The museum collection includes such sculptural representations from the sites of Sireniki, Kivak, Naukan, Nuvuk, and Nunligran. Zoomorphic and anthropomorphic figurines from Sireniki—the head of a walrus, Enmelen – a duck-like object, and Naukan and Nuvuk – human images, are very artistically executed.

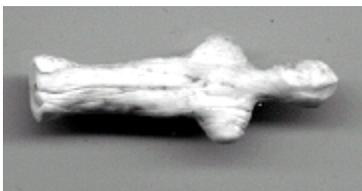
**“Walrus-head” pendant.**

Tiny zoomorphic figurine of a walrus head with tusks; a lug for hanging at the base of neck. Could have been used during festivals or ceremonies.

Found among early dwellings at Sireniki. Surface find. Given to the museum by V. Bychkov in 1991.

Ivory: walrus tusk: carving on ivory. 3.8 x 2.9 x 1.9 cm.

**Cat. # 3741**

**Anthropomorphic figurine.**

Miniature sculpture of a human with outlines of the head, shoulders, and trunk, which transitions into legs.

Found at the old site of Naukan. Surface find. Given to the museum by a resident of Provideniya, G. Pshenichnikov.

Ivory: walrus tusk: carving on ivory. 3.6 x 0.8 cm.

**Cat. # 4367**



**Zoomorphic figurine.**

Miniature sculpture of a fox or Arctic fox with a worked head and body, which transitions into a tail and two projections below that represent legs.

Surface material. Given to the museum by the Provideniya Bay customs house in 1993.

Ivory: walrus tusk: carving on ivory. 9.3 x 2.5 x 1.2 cm.

**Cat. # 4113**

Among the amulets and talismans are also artifacts of wood, such as a model whaleboat and the images of a bear, a bird, and a human. Finds of miniature artifacts of baleen are rare.

The museum collection houses an image of a bird from the site of Kivak, a model bow from Enmelen, and the likeness of a chain from Avan.

**Zoomorphic figurine.**

Miniature sculpture of a dog carved from wood without any details.

Found among old dwellings at Nunligran. Surface find. Given to the museum by a resident of Nunligran, Yu. Tegrenkeu, in 1998.

Wood: carving in wood. 6.5 x 2.0 cm.

**Cat. # 6864**

**Zoomorphic figurine.**

Possible sculpture of a bird, made of wood, with body oval in cross section, which narrows to very thin head and throat; in upper part of body traces are preserved of a hole-lug for fastening object to something. Served as a ritual object during ceremonies and festivals.

Found among old dwellings at Avan. Surface find. Given to the museum by I. Zagrebin, in 1995.

Wood: carved in wood. 22.5 x 5.1 cm.

**Cat. # 5368**

**Zoomorphic figurine.**

Tiny, flat image of a bird with spread wings. Could have served as an amulet when conducting a ceremony.

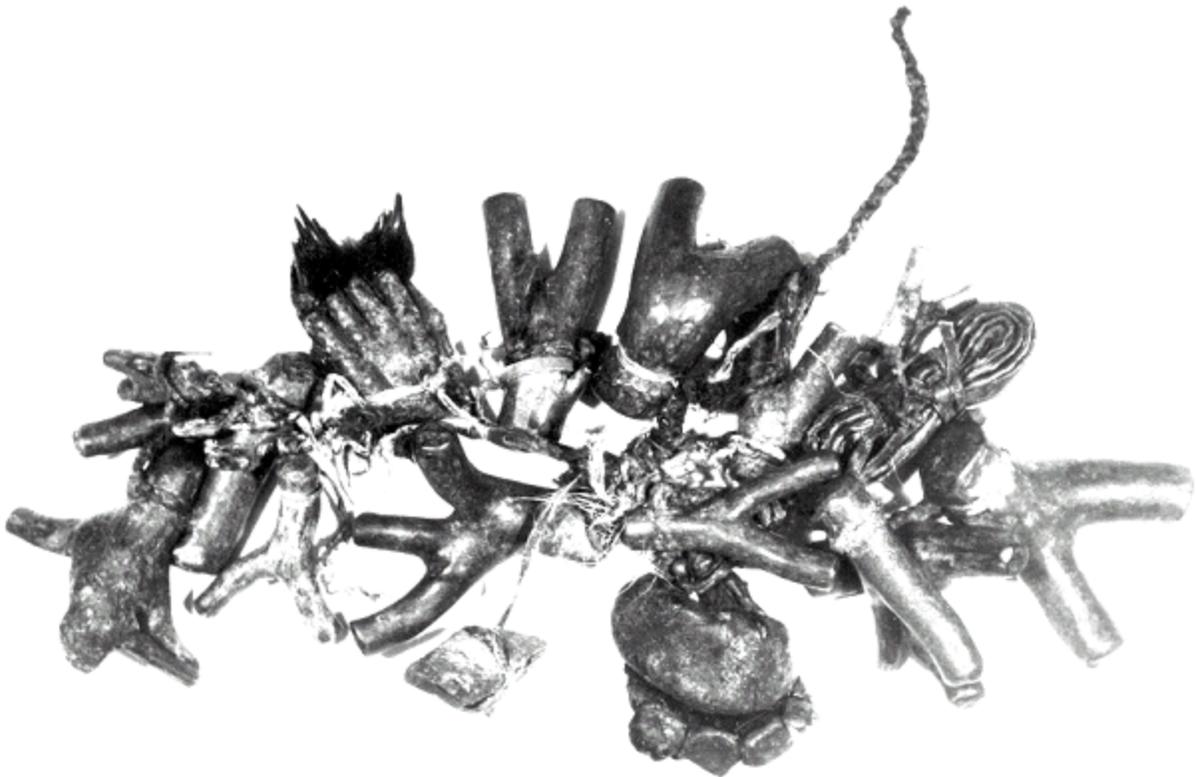
Found among early dwellings at Kivak. Surface find. Collected by the Provideniya Regional Museum expedition in 1997.

Baleen. 3.6 x 2.2 cm.

**Cat. # 6263**

Amulets and household guardians of the Reindeer Chukchi can be assigned to the isolated group of objects connected to the people's beliefs and their execution of ceremonies. In each family and yaranga these relics have been preserved up to the present.

The museum collection has parts of and complete fire boards or hearths from the Yanrakynnot and Sireniki tundra, as well as shamans' belts from Yanrakynnot and the Sirenikis. Also, a complex of small wooden idols come from Yanrakynnot.

**Amulet.**

Consists of thirteen short forked branches from bushes, two dried animal's paws, presumably wolverine and brown bear, a stone and several glass beads, and a rolled up leather thong tied to a primary thong. Serves as a family talisman-protector against "evil spirits."

Found in one of the old homes at Yanrakynnot. Given to the museum by a resident of Yanrakynnot, A. Tykkhagirgin, in 1997.

Wood; leather; stone; sinew: organics. 55.5 x 28.0 cm.

**Cat. # 6362**

Ornaments make up an isolated group of objects that served during ritual and family festivals.

Such objects are rarely encountered among the finds from early sites. The ornaments in the museum collection are beads of bone and colored glass, as well as a part of an ornament of marine shell from the site of Avan, and a part of an ornament from Enmelen.



**Part of an ornament.**

Flat, rounded, with a hole through the center. Might have served as a woman's decoration.

Found among early dwellings at Avan. Surface find. Given to the museum by a serviceman of the border patrol, P. Vasil'ev.

Marine shell. 1.3 cm.

**Cat. # 3475**

Pendants and decorated plates can be placed with objects of dual assignment. They could have served as a talisman, a sign of authority, and an ornament, simultaneously. The museum collection houses various pendants from the sites of Sireniki, Enmelen, and Kivak.

**Decorated plate (left).**

Flat, bowed, with three projections on the lower edge, two oval holes through the upper edge of one end and one hole preserved in the other end, which was used for hanging the object. Decoration in the form of wavy lines and deeply carved dots preserved over the whole obverse surface. Could have served as an ornament or a sign of authority.

Found among early dwelling at Enmelen. Surface find. Given to the museum by a resident of Provideniya, B. Gilyazov.

Ivory: walrus tusk: carving on ivory. 27.0 x 4.7 x 1.0 cm.T

**Cat. # 2627**



**Decorated plate (above).**

Oval, flat, with bifacial decoration reminiscent of an animals face, two teardrop holes in the region of the presumed eyes, and an oval hole for hanging in the vicinity of the presumed nose.

Found among early dwellings at Sireniki. Surface find. Given to the museum by the Sireniki Village Cultural Center.

Ivory: walrus tusk. 7.5 x 5.0 cm.

**Cat. # 168**

## 14. Tools for Various Kinds of Ground Work.

Early Russian researchers of the Chukchi Peninsula (Ya. Lindenau, 1741; I. Billings and G. Sarychev, 1791; F. Wrangel, 1824; F. Litke, 1828) distinguished two groups of Native peoples on the peninsula: the “Settled” and “Nomadic” Chukchi (“Foot” and “Reindeer” according to Lindenau). Thereby they noted the characteristic features in the way of life of the Native peoples of Chukotka.

The “Settled Chukchi” of the early researchers are the Eskimos and Coastal Chukchi. In their way of life this group, particularly the Eskimos, was one of the most sedentary. The coastal residents over the course of many centuries lived in pithouses (semi-subterranean dwellings), which could reach substantial dimensions. At the end of the nineteenth century the Eskimos and Coastal Chukchi had surface dwellings – winter and summer yarangas. Between these two types of dwellings there was a transitional type – frame dwellings. They appear as a series of whale bone “posts” set in the ground in a circle. The spaces between the “posts” of the frame were filled with sod. The roof was covered with walrus hide. Bogoras, who visited the coastal settlements of the southeastern Chukchi Peninsula in the summer of 1901, notes that:

In all the Chukchee and Eskimo villages that I visited on the Pacific coast, ruins of the so-called “jaw-bone houses” (wa’lkar; pl., wa’lkarat) are found. These ruins . . . are either circular holes or flat mounds with some battered rafters and beams of bone of the whale. . . . Often the wa’lkar was started with a circular excavation, and, after being well covered with earth, appeared to be a half-underground house, with only the roof protruding above the surface (Bogoras 1904:180-181).

When building a pithouse it is not possible to manage without working the ground with special tools. First, the sod had to be removed from the building site. The sod was chopped loose in rectangular pieces with large mattocks made from a whale’s rib and neatly stacked. Later it was used to keep the dwelling warm on the sides and top. The rocky, often frozen ground had to be chopped out with heavy mattocks of walrus tusk. To make a pithouse, one had to remove soil over a substantial area (early pithouses at Kivak reach 9 x 9 m in dimension, with an entrance corridor 10 m long). Besides excavating the ground beneath the dwelling, substantial earth work was required to construct the dwelling frame: digging the cache pits, and setting up the baidar rack and various “posts.” The remains of a large semi-subterranean dwelling at the Eskimo site of Avan look impressive. It is a depression in the surface of the coastal terrace 16 m in diameter and 2 m deep, with an entrance corridor and numerous fragments of the frame of large bowhead whale bones (primarily lower jaw bones). No less than 20 “posts” are set in the ground at the location.

The tools that the residents used in the construction of dwellings up to the twentieth century were:

- heavy picks of walrus tusk and whale rib mattocks for taking up the sod;
- large wedges for splitting bone and wood;
- such tools as shovels of walrus scapula or whale bone are closely connected with setting up a dwelling.

Another kind of earth work, though not connected with the construction of dwellings, was to dig roots of edible plants. Smaller tools of the pick-mattock type were also used for such work.

The blades of mattocks, picks, and hoes have been found in significant quantities in the excavations of all early and traditional sites. These instruments consist of a blade and a handle connected by thongs of sea mammal hide. In spite of the difference in dimensions or material, they are more or less uniform in shape. Picks are represented by bone rods of various dimensions with a pointed working end. The blades

of mattocks and hoes are usually flattened or flat with the whole working edge sharpened. The blades of picks and mattocks have been adapted for attaching a handle to them.

Wooden and bone handles are poorly preserved, especially the former. The upper part of the blade was fastened to the handle. There were two basic methods of attaching the blade to the handle.

1. In the upper part of the blade, on the inside, a flat area was chopped and, for durability of the attachment to the handle, was covered with transverse notches. For attachment of the blade and the handle several transverse grooves were carved in the same upper end. In some cases, one broad cavity was in the upper part instead of a series of transverse grooves. In the upper part of short mattocks usually one or two deep grooves were for the binding. Another pair of lateral notches was usually carved in the central part of the blade or near the front end—binding the blade and handle through these grooves kept the blade from slipping loose when working with the pick or mattock.
2. Near the upper end of the blade a hole, usually large and rectangular, was carved for seating the blade on a wooden handle. For additional attachment, lateral grooves and holes were carved in the back end of the blade and in the lugs.

The blades of tools for earth work have been found in great numbers.

Since picks, hoes, and mattocks were primarily used for digging edible roots, for digging up the ground, for chopping ice (both for obtaining fresh water and digging holes in sea ice) wear and tear is seen on the working ends of all the tools, as well as on the butt, where blows by heavy objects were applied.

#### ***14.1. Heavy picks and mattocks for removing sod.***

Heavy picks, which were used in building dwellings, and mattocks, for removing the sod, were large and heavy.

Heavy picks, made of a whole walrus tusk, were the most common tool of the Old Bering Sea period on St. Lawrence Island, according to Collins's excavations. Rudenko (1947) notes that on the Chukchi Peninsula such mattocks were found at Uelen and Kivak. Similar picks and mattocks from campsites of later times are basically no different than those from the Old Bering Sea. In fact, the same heavy picks and mattocks, as found in the earliest sites by the 1945 archaeological expedition (Rudenko 1947), have been found in the late sites of Kygynin (Arakamchechen Island), Unazik (Cape Chaplina), Avan, and Sireniki (the eastern site).

One more variant of the pick is the thick and rather long bone rod with a central hole for seating the handle. Picks of this type are in the collection from Red'kin Spit (Rudder Bay).

Mattocks for removing sod appear in later times (Rudenko 1947). They have not been found in Old Bering Sea assemblages either on St. Lawrence Island or in the 1945 excavations on the Chukchi Peninsula. Mattocks of this type have been found at sites of Punuk age on Arakamchechen Island and Cape Chaplina. Such mattocks are characteristic of the Thule culture (approximately from the tenth century A.D.) in North America. Mattocks of whale rib, for the removal of sod, existed into modern times. In the summer of 1997, with the examination of an excavation of one of the dwellings at the Kivak site, a large mattock of whale rib was found along with objects of metal and industrial production (such as metal parts from a gun and metal blades of knives and spears).

Heavy mattocks and picks were the primary tool used to dig earth in the construction of pithouses and dig cache pits. Possibly they were also used for chopping holes in the ice. The lower end of such mattocks is usually rough-hewn on both sides.

Mattocks for removing sod were intended for clearing sod from the area of a dwelling and for

preparing the sod for covering pithouses.



**Heavy pick blade.**

Part of a thick walrus tusk with working end roughly hewed on one side. In upper part of pick, on side opposite the hewing, a platform for a handle knocked out. Transverse notches applied to the surface of the platform. Massive and heavy blade.

Surface find in 1980-1985 in the vicinity of Cape Kygynin on Arakamchechen Island. Given as a gift to the museum in 1985 by the inspection department of Okhotsk Fisheries.

Walrus tusk. 26.0 x 8.0 cm.

**Cat. # 4431**



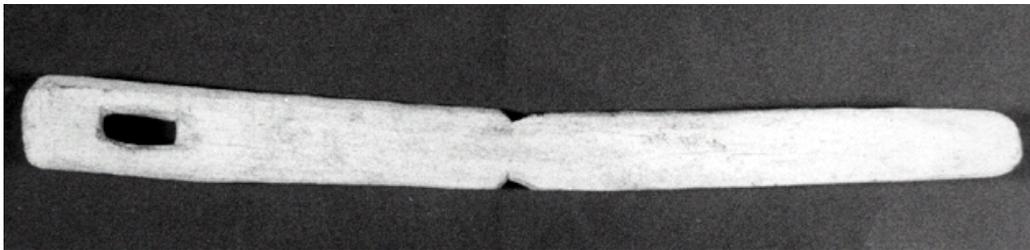
**Mattock blade for sod removal.**

Large mattock blade. In upper part, adaptations for attachment to a handle—a carved platform on inside of blade, as well as broad and narrow lateral notches. Working end quite worn and blunt.

A surface find from the early Eskimo site of Sireniki. Given as a gift to the museum in 1996 by a resident of Provideniya, A. Tamsen.

Fossilized bone: scrap of a whale rib. 57.5 x 6.5 cm.

**Cat. # 5605**



**Mattock blade for sod removal.**

Large mattock blade. In upper part of blade, a rectangular hole for seating a handle. For additional attachment, in middle part of the blade lateral notches were made, to which a binding was attached. Working end was rough-hewn and has small traces of wear.

Surface material. Collected by the Field Season-97 expedition of the museum at the early and traditional site of Kivak. Found in a dwelling dating to the end of the nineteenth-beginning of the twentieth century.

Bone: scrap of whale rib. 73.7 x 8.1 cm.

**Cat. # 6282**

### 14.2. Picks and mattocks for digging edible roots.

Vegetable food of various kinds is used by both branches of the tribe, though rather as a substitute in cases of scarcity of meat than as a relished change (Bogoras 1904:197).

....

The roots of [certain plants], and several others, are used by the Chukchee. They are the only vegetable food that is really relished. During the summer women often go digging roots. They use a digging-stick, which in former times consisted of a handle with bone point or simply of a sharp-pointed piece of antler, while at present it has an iron point tied to a wooden handle (Bogoras 1904:198).

Interestingly, the technique of digging edible plants did not change over the centuries. Merck's (1785 – 1795) manuscript states: "For digging . . . roots the women used a mattock of walrus tusk."

Small picks for digging edible roots differ from heavy picks and mattocks in their substantial length relative to their small cross section and sharp-pointed lower end. Hoes for digging roots are also small. Bone (usually a rib), antler, and more rarely walrus tusk blades of picks and hoes have been found.



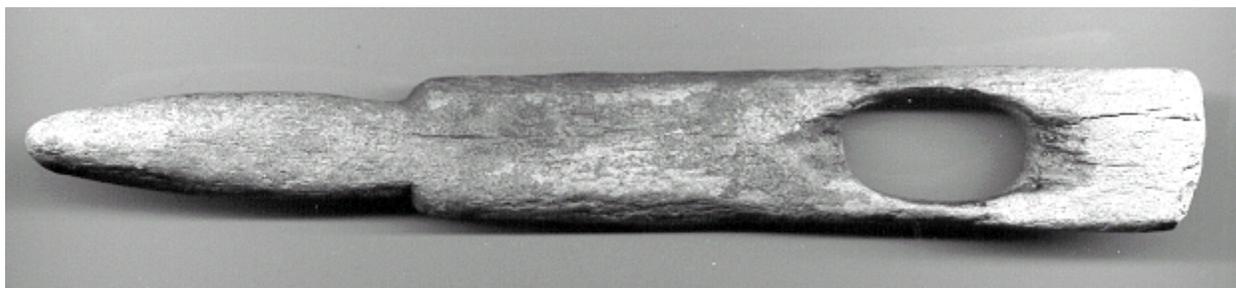
#### Pick-hoe blade for digging edible roots.

Long and narrow blade of a hoe, rounded in cross section. Working end blunt and worn. Narrow platform and two transverse grooves for attachment of the blade to a handle are on upper end.

Surface find in 1970 – 1980s. Early Eskimo site of Enmelen. Gift to the museum by a resident of Provideniya, B. V. Gilyazov, in 1988.

Ivory: walrus tusk. 24.3 x 2.0 cm.

Cat. # 4543



#### Pick-hoe blade for digging edible roots.

Oblong blade, somewhat bent, rectangular in cross section. Front part of blade is rough hewn on sides and looks like a beak. Shoulders between working end and "body" of pick-hoe. A binding that fastened blade to handle was attached to them. In back part of blade an oval hole (2.9 x 1.6 cm) was carved for attachment of blade to handle.

Surface find in the 1980s at the site of Kivak. Gift to the museum from a serviceman in the border patrol, P. Vasil'ev, in 1990.

Whale bone. 18.2 x 2.1 cm.

Cat. # 2666



**Pick-hoe blade for digging edible roots.**

Small, flat blade, which expands toward the working end. In upper part is an oval hole for seating the blade on a handle. In middle are two lateral incisions for attaching a binding.

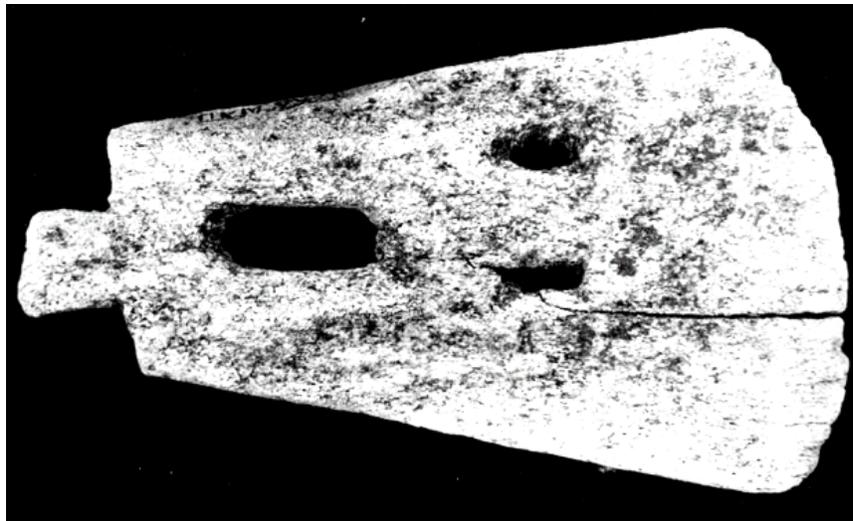
Surface find from the vicinity of Cape Kygynin on Arakamchechen Island in 1996. Purchased by the museum in 1997. Fossilized bone: whale rib. 22.4 x 8.55 cm.

**Cat. # 6171**

**14.3. Snow shovels.**

For excavating earth in the construction of dwellings and cleaning off the snow around a dwelling, shovels with a blade of walrus scapula or flatly carved whale bone were used. Shovel blades were almost never modified except to give them their proper form and holes carved for attachment to a handle. Snow shovels existed from the earliest times up to the modern period and were replaced by manufactured shovels.

All shovel blades are trapezoidal in form with a rounded working end. In the upper part a square cut was usually made for seating it on a handle and two lower oblong small holes for a binding.



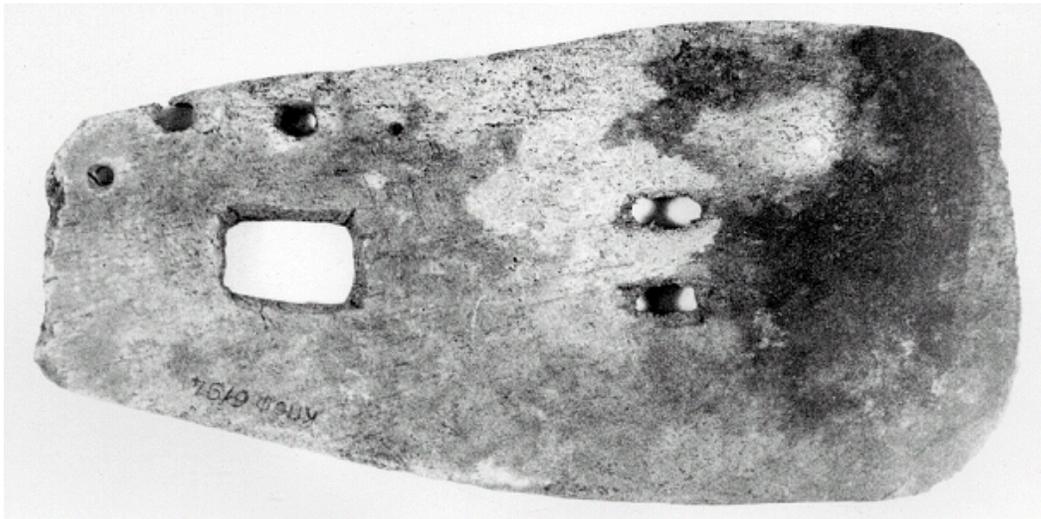
**Snow shovel.**

Blade elongated, trapeziform; working end has traces of wear. In upper part of shovel blade, a small, rectangular hole carved and below it, two slots. A projection for attaching a binding on upper edge of blade.

Given by the Sireniki Village Cultural Center in 1985.

Porous bone. 26.4 x 14.7 x 1.7 cm.

**Cat. # 120**

**Snow shovel.**

Blade elongated, trapeziform; working end has traces of wear. In upper part of shovel blade, a large, square hole carved and below it, two oval holes. In upper part of blade, along edge, three holes were drilled (an old walrus scapula cover was probably used for the shovel).

Found in a dwelling dating to the end of the nineteenth-beginning of the twentieth century. Surface find from the traditional Eskimo site of Kivak. Gift to the museum from V. Bychkov in 1997.

Porous bone: walrus scapula. 27.0 x 14.0 x 1.2 cm.

**Cat. # 6194**

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**APPENDIX I**

**List of village on the Chukchi Peninsula  
(2000 B.C. to 1994)**

**South Shore of the Chukchi Peninsula  
(From Rudder Bay to Cape Chukotskiy)**

1. Chigaykattym      During the years 1926 — 1927 there were four households here. Erguem — a group of nomadic Chukchi households from two nomad camps, 36 people.
2. Too                      A nomad camp on the middle course of the Erguveem River, five households.
3. Kuplyu                A nomad camp on the upper course of the Erguveem River, three households.
4. Red'kin                In 1926 — 1927 there were four households of Chukchi here, 17 people; probably Neran.
5. Rytkin                 Redkyn. A hunting camp on the Rudder Spit near a walrus haulout. Examined by Bogoslovskaya in 1990.
6. Sikaykytryn         This is possibly the village of Chigaykattym, but it was shown by an informant to be farther east, near Chikaykytryn Mountain.
7. Kaynatyr             In 1926 — 1927 there were four wandering Chukchi households here, 20 people; it is not shown on the map.
8. Koymatkin            Possibly coincides with Kaynatyr.
9. Pyrkanan
10. Tyvegtegin
11. Kenis'vyn
12. Val'kal'ten            In 1926-1927 there were nine Chukchi householdshere, 44 people; Val'katlen.
13. Enmelen             Bering, Enmilen, in 1926 — 1927 there were 28 Chukchi households here, 126 people; Enmyl'yn; in 1989 — 414 people: 307 Chukchi, 13 Eskimos, and 94 newcomers.
14. Pil'gin                In 1926 — 1927 there was one Chukchi household here, seven people.
15. Kuyviveem
16. Kitchen              Located on the upper reaches of Preobrazheniya Bay.
17. Yugcharan            Yucheran is located on the south shore of Preobrazheniya. Examined by Bogoslovskaya in 1985. In the ruins of semi-subterranean dwellings of bowhead whale skulls a trading post, then a border post was built.
18. Nunligran            Preobrazhenie (Nunlygran). In 1926 — 1927 there were 31 households here, of them 29 were Chukchi, 140 people; in 1946 — 1950 — 217 people; in 1989 — 532 people: 313 Chukchi, 21 Eskimos, 198 newcomers.
19. Syanlik              Senlin, Chendlin. The westernmost settlement of the Eskimos during the 19th century. According to Bogoraz, the majority of the village residents perished in the famine of 1880.
20. Achchen              The village was located on the northeast shore of Lake Achchen.
21. Asyun                 An Eskimo village on the spit that separates Lake Achchen from the sea.
22. Ukatan                Ukygitak was located in the vicinity of Cape Shpanberga, as was Asyun. It is possible that these are the same village.
23. Kurupka              Kurupkan. In 1926 — 1927 there were 15 Chukchi households here, 69 people. 1 January 1943 102 people were counted in the Kurupkan village council: 101 Chukchi, 1 newcomer.
24. Koletatyr            In 1926 — 1927 there was a nomad camp here of three Chukchi households, 14 people, Kurupkan village council.

25. Omryl'kot A nomad camp on the Chaatam'e, a tributary of the Kurupka River.
26. Kurgu First examined by I. Krupnik and L. Bogoslovskaya in 1979. The only Eskimo village whose semi-subterranean dwellings are located in a gorge shut off from the sea.
27. Agmanyrak Upon examining the indicated Eskimo sites, L. Bogoslovskaya discovered a Chukchi cemetery on a rocky hill.
28. Singak Sinrak. Examined by I. Krupnik and L. Bogoslovskaya in 1979, again and in more detail by Bogoslovskaya in 1987. A field of complex patterns of stone, enclosed by a wall of a single row of stones. Judging by the remains of the semi-subterranean dwellings of whale bone, Sinrak was the largest whaling village whose residents specialized in procuring young bowhead whales. Krupnik suggests that the village was abandoned at the end of the 18<sup>th</sup> and beginning of the 19<sup>th</sup> century.
29. Yakuk Tiny Eskimo village.
30. Kynlirak Small Eskimo village which was abandoned in 1935. The last bowhead whale was killed in 1932.
31. Sireniki Sirynykh, Vuteen (79 people), Siginik. In 1926 — 1927 there were ten Eskimo households here, 49 people; 1 January 1943 — 232 people: 228 Eskimos, 4 newcomers; from 1946-1950 — 326 people; in 1989 — 769 people: 204 Chukchi, 305 Eskimos, 253 newcomers. At present, Sireniki is the only surviving Eskimo village: “the Eskimos lived here beginning with the Old Bering Sea stage of their culture and probably almost without break up to the present time.” The largest whaling village which procured adult and young bowhead whales. A unique 8 — 10 m cultural layer has been preserved.
32. Imtuk Imtun. 43 people; in 1926 — 1927 there were 23 Eskimo households here, 124 people. Abandoned in 1934, some of the residents moved to Sireniki.
33. Angytykuk Small settlement whose residents moved to Imtuk at the end of the 19<sup>th</sup> century.
34. Atkal'khak Small Eskimo settlement abandoned by the residents between 1877 and 1881.
35. Kavyzruk Nilkino. Small Eskimo settlement which disappeared at the end of the 19<sup>th</sup> century. Located on the spit on the western shore of the entrance to Provideniya Bay.
36. Yryrak Eskimo whaling village, abandoned in 1910. Situated, like Kavyzruk, at the entrance to Provideniya Bay, on the spit of Plover Bay.
37. Aslik Plover. Emerged in 1936 on a small spit in Plover Bay in connection with the construction of a whaling station. From 1940 — 1950 in it lived about 150 former residents of Avan, Ureliki, the Sirenikis, Kivak, and Ungazik. Closed in 1958 after an avalanche of stone talus.
38. Ureliki Urelyk. This is possibly the village of Emma, where in 1926 — 1927 there were five households, three of them Eskimo, 32 people; 1 January 1943 — 928 people: 18 Chukchi, 151 Eskimos, 759 newcomers; in 1989 — 1,767 people: 15 Chukchi, 5 Eskimos, 1,747 newcomers. A late Eskimo site without semi-subterranean dwellings which emerged in the 19<sup>th</sup> century. Closed as a traditional settlement in 1946.
39. Provideniya Provideniya Bay. Modern regional center. In 1989 there were 5,535 people: 168 Chukchi, 124 Eskimos, 5,243 newcomers. The village emerged with the opening up of the North Sea route and became an international sea port.
40. Avan Eunmon, Estikhet, Esteget. In 1926 — 1927 there were 14 Eskimo households here, 77 people. One of the largest Eskimo whaling villages, it existed a long

time, the cultural layer in the eroded shore being 4 — 6 m thick. In the remains of semi-subterranean dwellings the bones and skulls of large bowhead whales were preserved in great number. Closed in 1942.

41. Aasyak Small Eskimo village located 7 — 8 km southeast of Avan. Abandoned by the residents no later than the middle of the 19th century.
42. Name unknown Site on the western side of Cape Chukotskiy.

**Eastern Shore of the Chukchi Peninsula  
(from Cape Chukotskiy to the Village of Uelen)**

43. Kurupkyrat Small Eskimo village 4 — 5 km southeast of Cape Chukotskiy. Abandoned by the inhabitants no later than the middle of the 19th century.
44. Kivak In 1926 — 1927 there were 11 Eskimo households here, 66 people; from 1946 — 1950 — 92 people. Closed in 1952, the residents generally moving to Novoe Chaplino. The remains of this large whaling village have been substantially damaged by the sea and pillaged by visitors from Provideniya and Ureliki.
45. Nuvuk Small settlement 8 — 10 km southeast of Kivak. Abandoned by the residents between the middle and end of the 19th century.
46. Kel'kun In 1926 — 1927 there were three Chukchi households here, 12 people. The location is unknown. It belonged to the Kivak village council.
47. Tasik Chechen. In 1926 — 1927 there were four Chukchi households here, 32 people. The village was closed in 1947.
48. Apyrvalin The camp of the semi-nomadic, reindeer-herding, Nuparagmit group. Located at the top of Tkachen Bay.
49. Novoe Chaplino Modern village built on the site of the camp of Tkachen in 1958 for residents of Ungazik and Kivak. In 1989 496 people were counted: 87 Chukchi, 315 Eskimo, 95 newcomers.
50. Inlygnak Inglygnak. Small Eskimo village which later completely disappeared. Located on the north shore by the entrance of Tkachen Bay.
51. Ukig'yarak Small Eskimo village 1 — 2 km east of Inglygnak. Abandoned by the residents about 1940.
52. Ukhsyarat Small village 3 — 4 km east of Ukig'yarak. Occupied for a short time in 1910.
53. Unazik Ungazik, Chaplino, Unyyn. "The largest Chukotka settlement on the whole peninsula; according to Gondatti's data, there were 495 people in the settlement . . . Cape Chaplina serves as the trading center for the Americans; from here American wares are dispersed along the whole coast from the mouth of the Anadyr to St. Lawrence Bay." The largest Eskimo whaling village. Closed because of severe damage to the shore in 1958 — 1959. The residents were resettled in Novoe Chaplino. In 1926 — 1927 there were 35 Eskimo households here, 254 people; in 1943 — 296 people: 26 Chukchi, 256 Eskimos, 14 newcomers; from 1946 — 1950 — 236 people: 28 Chukchi, 206 Eskimos, 2 newcomers.
54. Tyflyak Rather large Eskimo village, the residents of which moved to Unazik in 1930.
55. Uniyramkyt Unyyn. In 1926 — 1927 there were 11 households here, 10 of them were Eskimo, 49 people. Abandoned by the residents about 1928 — 1930.
56. Khsyurat Small village on the south side of Cape Mertensa. Existed until 1910 — 1920s.

### Villages of Yttygran Island.

57. Napakutak “Large settlement on Shirluk Island” near Cape Postel’sa (Cape Engelyukan on modern maps) noted by Bogdanovich. Napakuuten (Ittygran). In 1926 — 1927 there were seven Eskimo households here, 44 people. Abandoned by the residents about 1934.
58. Siklyuk Seklyuk, in 1926 — 1927 there were seven households of Eskimos, 45 people. Closed in 1950. Not far from the village is an important site of the Eskimo whale-hunting culture Whale Alley.
59. Styragvak
60. Am’yak
61. Tyv’yarak
62. Sivurat Kivalerak.

### Villages of Arakamchechen Island.

63. Yarga Yergyn.
64. Meynyguk
65. Name unknown Village on Cape Oleniy.
66. Kyga Kygynin. The system of settlements of different ages on Cape Kygynin was first investigated by S. Rudenko. Because of rapid coastal erosion the earliest part of the settlement was destroyed. However, semi-subterranean dwellings and meat caches built of bones of small gray whales were still preserved, as were ritual rings of the skulls of these animals. The southernmost village of gray whale hunters. Below the village the largest coastal walrus haulout is now located.
67. Kenil’gan In 1926 — 1927 there were three Chukchi households here, 28 people. Probably the last martime shaman of eastern Chukotka, Ekkr, lived here from 1930 to 1940.
68. Pagilyak The village was repeatedly occupied, the last time at the beginning of the 20<sup>th</sup> century by residents of Unazik, who abandoned it about 1920.

### Villages of the mainland coast and bays of Senyavina Strait.

69. Ingakhpak At the present day, a base for sea mammal hunters from Novoe Chaplino.
70. Elakynnot A camp of semi-nomadic Chukchi reindeer herders.
71. Kytlingay
72. Kurgak A village located in Rumilet Bay not far from a haulout of ringed seals and spotted seals.
73. Kunuk A village located on the cape north of the entrance to Abolesheva Bay, in the back of which is a spotted seal haulout.
74. Gil’mimil’ In 1926 — 1927 there were three Chukchi households here, 20 people. Located in Gil’mymyl Bay not far from hot springs.
75. Kal’khtyunay In 1926 — 1927 there were four Chukchi households here, 28 people. Included in the Gil’mymyl village council. precise location unknown.
76. Kelkun In 1926 — 1927 there were three Chukchi households here, 19 people. Included in the Gil’mymyl village council. Precise location not established.
77. Nutenut In 1926 — 1927 there were four Chukchi households here, 26 people. Included

- in the Gil'mymyl village council. Precise location not established.
78. Epiliki In 1926 — 1927 there were three Chukchi households here, 18 people. Included in the Gil'mymyl village council. Precise location not established.
79. Itrynay Ytrynay. Nomad camp of the Chukchi Kutylina clan. Located on the south shore of Penkigney Bay not far from the entrance to the bay.
80. Kalyarik Kaleryan. In 1926 — 1927 there was one Chukchi household here, 6 people. Included in the Inrakinutskiy village council. Keleren. The Chukchi Ytylin and Omruge clans. Located at the back of Penkigney Bay not far from places of breeding and summer-fall haulouts of ringed seals.
81. Ukenin Nomad camp of the Chukchi Konstantin Kymyechgyn clan. On the north shore of Penkygney Bay.
82. Penkigney In 1943 85 people lived here: 84 Chukchi, 1 newcomer. Since the location coincides with Ukenin, it is possible they are the same place.
83. Ryrkaramkin Village located east of Ukenin-Penkigney on the north shore of Penkigney.
84. Kurgan In 1926 — 1927 there were six Chukchi households here, 39 people. Included in the Inrakinutskiy village council. Located at the entrance to Venetkyn Lagoon on the mainland shore.
85. Voyvin Camp of semi-nomadic Chukchi, reindeer herders and ringed seal hunters.
86. Yanrakynnot Yandakynnot, Attayon, Yandraknot. "The Chukchi at the Marich River (Attayon village) are as if in the transitional stage from Reindeer to Settled Chukchi; having a herd of several hundred head, they constantly pasture their herd near the Marich River, never wandering into the interior of the country." Inrakinut. In 1926 — 1927 there were five Chukchi households here, 26 people; in 1943 — 174 people: 169 Chukchi, 4 Eskimos, 1 newcomer; from 1946 — 1950 — 157 people; in 1989 — 473 people: 371 Chukchi, 25 Eskimos, 77 newcomers. From 1940 — 1950 in Yanrakynnot all the residents of the camps of Senyavina Strait gradually moved away.
87. Tenmyngyn A nomad camp on the middle course of the Marich River.
88. Vyekvyn A nomad camp of the Chukchi, reindeer herders and ringed seal hunters. According to the recollections of K. Kymyechgyn, it consisted of eight yarangas.
89. Rekken Possibly Alyaevo.
90. Nykhcheen Eetchen, Nykhchigen, Gytgykoym.
91. Il'gini In 1926 — 1927 there were six Mestizo households here, Chukchi-Eskimo, 38 people. On the map Il'gini is indicated in the place of Nykhchigen, possibly the same village, on the south spit of Gytgykoym Lagoon.
92. Kuven In 1926 — 1927 there were five Chukchi households here, 28 people. The location needs to be more specific.
93. Maynyrok In 1926 — 1927 there were five Chukchi households here, 32 people. Included in the Kuvenskiy village council. The location needs to be more specific.
94. Mel'gun In 1926 — 1927 there were four Chukchi households here, 20 people.
95. Nykhsirak Nykhchgen, Khalyuskin. Whaling village, which procured young gray whales. Two fields of menhirs. First examined by L. Bogoslovskaya and M. Chlenov in 1981.
96. Masik Mechigmen, Agritkino. First examined by L. Bogoslovskaya, I. Krupnik, and M. Chlenov in 1981. The largest whaling village, whose residents procured a large number of young gray whales and humpbacked whales.
97. Krasnaya Yaranga A village which emerged during Soviet times, probably on the place of an

- old nomad camp.
98. Mechigmen A village located on the north shore of Mechigmen Bay. From 1946 — 1950 included in the Lorino village council — 93 people; in 1926 — 1927 for Mechigmen were shown two Chukchi households, 14 people, but strange for such a village. On the spit or north shore of Mechigmen Bay.
99. Raupelyan Ravpelyan. In 1926 — 1927 there were seven Chukchi households here, 34 people.
100. Lorino Lyugren, L'uren. In 1926 — 1927 there were 12 households here, of them 11 Chukchi, 52 people; in 1943 — 174 people: 171 Chukchi, 3 newcomers; in 1989 — 1,551 people: 1,032 Chukchi, 67 Eskimos, 452 newcomers. At the present time, the largest Chukchi ethnic village of the Chukchi Peninsula, which absorbed the population of the nomad camps and small villages of Mechigmen Bay, from Cape Khalyuskina to Cape Kriguygun.
101. Ilyan Ilyan'. In 1926 — 1927 there were four Chukchi households here, 27 people. Like other villages of Mechigmen Bay, specialized in procuring young gray whales. In Ilyan lived the famous Chukchi whale hunter Ale, who during the end of the 1940s and beginning of the 1950s procured more than 40 gray whales.
102. Kukun A village analogous to Ilyan.
103. Nutkan In 1926 — 1927 there were seven Chukchi households, 34 people. This is possibly the village of Kukun.
104. Akkani Akani, Y'kynyn, Yakkani. "7 yurts." In 1926 — 1927 there were 16 Chukchi households, 84 people; in 1943 — 165 people: 162 Chukchi, 2 Eskimos, 1 newcomer; from 1946 — 1950 — 153 people. The village was closed in the 1960s, the residents moving to Lorino.
105. Yandagay Yandogay, Yanranay, Yanranak. In 1926 — 1927 there were 28 households here, of them 27 Chukchi, 168 residents; in 1943 — 127 people: 126 Chukchi, 1 newcomer; from 1946 — 1950 — 117 people. The village was closed in the 1950s, the residents moving to Lorino.
106. Kotrytkino Kytrytkyn, Kytryn. In 1943 273 people lived here: 131 Chukchi, 14 Eskimos, 128 newcomers. At present, it is territorially joined with the regional center of Lavrentiya, but has its village council.
107. Lavrentiya A new village, the regional center of the Chukotskiy District. In 1989 2,911 people lived here: 235 Chukchi, 169 Eskimos, 2,507 newcomers coupled with Kotrytkino.
108. Pinakul' Pynakvin. A village in Litke Bay within Lavrentiya Bay. Penyakun'. In 1926 — 1927 there were six Chukchi households here, 45 people. Later it was a sea mammal hunting station. The Native residents of the village of Lavrentiya think about the revival of Pinakul'.
109. Nunyamo Nunama, Nun'emun. In 1926 — 1927 there were 11 Chukchi households here, 68 people; 1937 — 1938 together with the village of Chini — 11 households, 88 people; 1943 — 186 people: 185 Chukchi, 1 newcomer; 1946 — 1950 — 131 people. Before 1958 this was purely a Chukchi village. Then, after the closure of the village of Naukan, the Naukan Eskimos moved here. At the beginning of the 1970s Nunyamo was officially closed, but the last family continued to live there until 1977. The residents of Nunyamo moved to the villages of Lorino, Lavrentiya, and Uelen. Now the prospects for revival of Nunyamo are being discussed.
110. Chini Chinin. In 1926 — 1927 there were five Chukchi households here, 29 people; 1937 — 1938 — 9 households. An early sea mammal hunting village whose

- cemetery was excavated by N. Dikov in 1963 — 1965. Consisted of two settlements separated by a ravine with a stream. The northern settlement was possibly called Enmyntyn, like the hill located north of it.
111. Keyekan
112. Pouten Puuten, Pukhtuk. Examined by L. Bogoslovskaya in 1985 — 1987. Remains of at least two whaling villages were discovered, which procured gray and bowhead whales. The main village, located on the south shore of Pouten Bay, contained the remains of ritual rings of skulls of young gray whales and stones. In the remains of the small village, which stood on the north spit of the bay, a frontier post had been constructed. At present, near the remains of both villages are the summer camps of fishermen from Lorino (southern village) and Uelen (northern village). In 1991 the archaeologist S. Gusev examined the southern village and made a topographical survey.
113. Leymin
114. Tunytlin Tunytlino. S. Gusev discovered the remains of three villages. In 1937 — 1938 there were nine households here, 59 people. It was noted that Tunytlino is a new village, and Indilin and Kukun had disappeared.
115. Ekven Ykven. An early badly damaged whaling village, the cemeteries of which, excavated by S. Arutiunov and D. Sergeev, and then by the Archaeological Expedition of the State Museum of Eastern Art, provided vast, unique material on the Old Bering Sea culture of the Asiatic Eskimos.
116. Nunemo In 1926 — 1927 there were three Chukchi households here, 23 people.
117. Dezhnevo Kaniskak, Keniskun, the old Chukchi Valkatlyan, Enmytagyn. In 1926 — 1927 there were 16 households here, of them 13 were Chukchi, 78 people; 1943 — 79 people: 76 Chukchi, 2 Eskimos, 1 newcomer; 1946 — 1950 — 64 people. Closed in 1951, combined with Uelen. The Native population of Lavrentiya, primarily Naukan Eskimos, discuss the possibility of reviving the village.
118. Nunak Nunegnín, Staryi Naukan. Village on Cape Peek, the residents of which at the end of the 19<sup>th</sup> century moved to Naukan.
119. Naukan Nuukan. “52 yurts and 2 wooden homes of American construction.” In 1926 — 1927 there were 57 Eskimo households here, 349 people; 1943 — 327 people: 2 Chukchi, 313 Eskimos, 12 newcomers; 1946 — 1950 — 254 people: 7 Chukchi, 247 Eskimos. The village was closed in 1958. The main part of the residents moved to Nunyamo, then after the closure of this village — to Lavrentiya. In the past it was the largest whaling village in Chukotka.
120. Mamrokhpak Memrepen. A nomad camp between Naukan and Cape Dezhneva. V. Leontev suggests that this was once a large village. At the end of the 19<sup>th</sup> century the residents moved to Naukan.
121. Uyagak The smallest village in the vicinity of Cape Dezhneva. The residents moved to Naukan at the end of the 19<sup>th</sup> century.

#### **Village on Ratmanova Island.**

122. Imaklik Ratmanovo, Imelin, southwestern village of the island. In 1926 — 1927 there were five Eskimo households here, 27 people; in 1940 — eight semi-subterranean dwellings, 30 people. In 1947 the village was closed.
123. Name unknown Tiny village in Kolkhoz Gorge on the western shore of the island. Found in 1986

- by serviceman I. Goncharov.
124. Name unknown Village on the northern extremity of the island was almost completely destroyed by the construction of a frontier post.

**North Coast of the Chukchi Peninsula  
(from Uelen Village to Kolyuchenskaya Bay)**

125. Uelen Uellen. The largest village on the north coast of the Chukchi Peninsula. Until the 1960s the residents actively carried out hunting bowhead and gray whales. In 1926 — 1927 there were 49 households here, of them 38 were Chukchi, 269 people; in 1943 — 402 people: 301 Chukchi, 24 Eskimos, 77 newcomers; 1946 — 1950 — 288 people: 259 Chukchi, 29 Eskimos; in 1989 — 1,034 people: 568 Chukchi, 80 Eskimos, 386 newcomers. After the closure of Naukan several Eskimo families moved to Uelen.
126. Inchoun Inchouin, Inchaun, Inch'uvín. In 1926 — 1927 there were 21 Chukchi households here, 113 people; in 1943 — 194 people: 191 Chukchi, 3 newcomers (Inchoun + Mitkulen); in 1946 — 1950 — 168 people; in 1989 — 395 people: 367 Chukchi, 2 Eskimos, 26 newcomers. After the closure of Chegitun and smaller villages their population moved to Inchoun, and part of the Inchoun people to Uelen. The maritime hunters of Inchoun most of all preserved the tradition of the sea mammal hunting culture of the Chukchi.
127. Chetpokaargin The precise place has not been established. In 1943 — 97 Chukchi. In 1946 — 1950 — 81 people. Closed in the 1950s.
128. Innin In 1926 — 1927 there were two Chukchi households here, 14 people.
129. Mitkulen In 1926 — 1927 there were four Chukchi households here, 27 people.
130. Enmytagyn
131. Uten Uttyan. In 1926 — 1927 there were nine Chukchi households here, 33 people.
132. Chutpen Chupen, Chutpa, Chutpen, Chutp'en, Chut'bak. In 1926 — 1927 there were seven Chukchi households here, 37 people.
133. Ikichuvren Ikichur, Ikichura. In 1926 — 1927 there were six Chukchi households here, 43 people.
134. Isen Ipen. "And by survey of the 'Pirate' two settlements near Ikichur and Ipen." The "twin" of Chegitun, village on the right, high bank of the Chegitun' River.
135. Chegitun Chegitun'. In 1926 — 1927 there were 13 Chukchi households here, 73 people; in 1943 — 124 people: 119 Chukchi, 1 Eskimo, 4 newcomers. Closed no earlier than 1957. The residents moved to Inchoun.
136. Seshan Chechen. In 1926 — 1927 there were 17 Chukchi households here, 86 people; in 1943 — 113 people: 112 Chukchi, 1 Eskimo, 1 newcomer; in 1946 — 1950 — 108 people.
137. Ikal'uren Ikalyuren.
138. Nutekeneshkhin Ettakannichin. In 1926 — 1927 there were nine Chukchi households here, 48 people.
139. Kenishkhen Kenishkvyn, Kenichvyn. In 1926 — 1927 there were six Chukchi households here, 33 people.
140. Enurmino Ennurmin, Enyurmin. In 1926 — 1927 there were 19 Chukchi households here, 103 people; in 1943 (Enurmino + Pouten) — 275 people: 259 Chukchi, 1 Eskimo, 15 newcomers; in 1950 — 222 Chukchi; in 1989 — 290 people: 260 Chukchi, 30

- newcomers. “Gondatti points out as well that an American government ship took on reindeer in 1893 in Enurmin`, a settlement near Cape Serdtse Kamen’.”
141. Netten Neten, Net`en. In 1926 — 1927 there were four Chukchi households here, 19 people.
142. Enmitagin Emittaun. In 1926 — 1927 there were three Chukchi households here, 13 people.
143. Emelin Emilin, Emetyn. In 1926 — 1927 there were 11 Chukchi households here, 63 people.
144. Pitlekay Pil`khin. In 1926 — 1927 there were two Chukchi households here, 7 people.
145. Maamin Mamino, Memino. In 1926 — 1927 there were four households here, 25 people; in 1943 — (Memin + Toygunen) — 157 people: 150 Chukchi, 7 newcomers.
146. Chinaru In 1926 — 1927 there were two Chukchi households here, 13 people.
147. Tepkan Tepken. In 1926 — 1927 there were 13 Chukchi households here, 71 people. Tanko and Tunken are possibly names of this same village.
148. Neshkan Nesken. In 1926 — 1927 there were 11 households here, 10 Chukchi households, 65 people; in 1943 in the Neshkan village council — 240 people: 238 Chukchi, 1 Eskimo, 1 newcomer; in 1946 — 1950 — 181 people; in 1989 — 803 people: 605 Chukchi, 22 Eskimos, 176 newcomers.
149. Chenlyu In 1926 — 1927 there were two Chukchi households, 11 people. This is possibly the village of Eynenekvyn on American air navigational maps.
150. Vel`kal`tenut In 1926 — 1927 there were four Chukchi households here, 18 people.
151. Irginup In 1926 — 1927 there were three Chukchi households here, eight people.
152. Indylin (Kargauter), Dzhenretlen, Yynryl`yn. In 1926 — 1927 there were seven Chukchi households here, 27 people.
153. Toygunen Toygutygen. In 1926 — 1927 there were three Chukchi households here, 13 people; in 1946 — 1950 — 89 people.
154. Maynatyrgin In 1926 — 1927 there were nine Chukchi households here, 37 people. This is possibly the village of Alyatki(n) on modern maps.
155. Chiegytyg In 1926 — 1927 there were five Chukchi households here, 31 people.
156. Ipil`khkuy In 1926 — 1927 there were three Chukchi households here, nine people. It is located deep in Kolyuchinskaya Bay, on Nuteyikvin Peninsula, near Cape Nuteyikvin.
157. Anayan The settlement is located on the eastern shore of Kolyuchinskaya Bay near a cape of the same name.
158. Rpatyn In 1926 — 1927 there was one Chukchi household here, six people. It is located on the western shore of Kolyuchinskaya Bay. The location needs to be more specific.

Besides the settlements and nomad camps enumerated in the list, there existed and now exist no less than two dozen camps of Chukchi reindeer herders, their names and coordinates still await clarification.

This list was composed by Lyudmila Bogoslovskaya, Institute of Northern People, Russian Academy of Sciences.

## **APPENDIX II**

## Equipment for hunting sea mammals

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
4768	39 - 08-30-94	Barbed harpoon head	Bone	16.35 x 2.2	Insig. damage	AM	Emmelen
4771	39 - 08-30-94	Barbed harpoon head	Bone	9.2 x 1.9	Complete	AM	Emmelen
3533	09 - 03-11-91	Barbed harpoon head (frag.)	Bone	12.7 x 2.3	Sig. damage	AM	Sireniki
3732	32 - 05-08-91	Barbed harpoon head (frag.)	Bone	9.4 x 1.6	Sig. damage	AM	Sireniki
4799	43 - 09-10-94	Harpoon foreshaft	Walrus tusk	19.1 x 1.5	Sig. damage	AM	Avan
4263	07 - 07-20-85	Harpoon shaft head	Walrus tusk	10.9 x 1.9	Sig. damage	AM	Arakamchechen
1682	19 - 10-13-89	Harpoon shaft head	Walrus tusk	13.4 x 2.3	Sig. damage	AM	Emmelen
6056	86 - 11-29-96	Harpoon shaft head	Walrus tusk	8.4 x 1.4	Sig. damage	AM	Kivak
6103	87 - 12-04-96	Harpoon shaft head	Walrus tusk	12.2 x 2.7	Sig. damage	AM	Vankarem
6398	87 - 12-18-97	Harpoon shaft head	Walrus tusk	21.7 x 2.5	Sig. damage	AM	Yanrakynnot
6414	94 - 12-22-97	Harpoon shaft head	Walrus tusk	18.3 x 2.85	Complete	AM	Arakamchechen
4800	43 - 09-10-94	Harpoon shaft head	Walrus tusk	29.3 x 3.0	Complete	AM	Avan
4801	43 - 09-10-94	Harpoon shaft head	Walrus tusk	30.6 x 2.6	Complete	AM	Avan
3331	39 - 10-26-93	Harpoon shaft head (frag.)	Walrus tusk	4.5 x 2.4	Sig. damage	AM	Sireniki
3333	39 - 10-26-93	Harpoon shaft head (frag.)	Deer antler	2.5 x 2.3	Sig. damage	AM	Sireniki
6935	35 - 08-31-98	Harpoon shaft head (frag.)	Walrus tusk	8.4 x 1.85	Sig. damage	AM	Emmelen
3676	07 - 02-24-94	Harpoon shaft	Wd., bn., hd.	198.5 x 4.2	Complete	AM	Sireniki
2838	02m/0 03-02-91	Grappling hook	Wd., metal	23.0 x 5.5	Sig. damage	EP	Providenskiy Dist.
3674	07 - 02-24-94	Grappling hook	Wd., metal	96.0 x 7.0	Complete	AM	Sireniki
4116	48 - 12-07-93	Wound plug	Walrus tusk	5.35 x 1.35	Complete	AM	Providenskiy Dist.
5275	40 - 07-27-95	Wound plug	Wood	10.9 x 3.7	Sig. damage	AM	Kivak
6270	37 - 07-14-97	Wound plug	Wood	11.1 x 2.4	Insig. damage	AM	Kivak
6271	37 - 07-14-97	Wound plug	Wood	9.3 x 2.9	Insig. damage	AM	Kivak
7111	06 - 03-11-99	Wound plug	Wood	13.2 x 2.3	Complete	AM	Plover
7113	06 - 03-11-99	Wound plug	Wood	14.6 x 2.6	Complete	AM	Plover
3103	56 - 02-19-91	Harpoon foreshaft	Walrus tusk	9.85 x 1.0	Sig. damage	AM	Emmelen
3111	37 - 10-12-93	Harpoon foreshaft	Walrus tusk	12.9 x 1.0	Sig. damage	AM	Sireniki
3127	37 - 10-12-93	Harpoon foreshaft	Bone	7.5 x 1.5	Insig. damage	AM	Sireniki
3129	37 - 10-12-93	Harpoon foreshaft	Bone	14.6 x 1.0	Insig. damage	AM	Sireniki
3177	37 - 10-12-93	Harpoon foreshaft	Walrus tusk	9.6 x 1.3	Sig. damage	AM	Sireniki
3317	39 - 10-26-93	Harpoon foreshaft	Bone	13.0 x 0.7	Complete	AM	Sireniki
3337	39 - 10-26-93	Harpoon foreshaft	Bone	8.2 x 1.1	Insig. damage	AM	Sireniki
3339	39 - 10-26-93	Harpoon foreshaft	Bone	11.5 x 0.9	Insig. damage	AM	Sireniki
3342	39 - 10-26-93	Harpoon foreshaft	Bone	7.7 x 1.2	Insig. damage	AM	Sireniki
3728	32 - 05-08-91	Harpoon foreshaft	Bone	12.5 x 2.0	Insig. damage	AM	Sireniki

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4362	47 - 11-16-94	Harpoon foreshaft	Walrus tusk	5.4 x 1.2	Sig. damage	AM Naukan
4368	11 - 09-22-89	Harpoon foreshaft	Walrus tusk	7.8 x 1.2	Sig. damage	AM Naukan
5399	56 - 10-13-95	Harpoon foreshaft	Walrus tusk	8.2 x 1.2	Sig. damage	AM Imtuk
5643	09 - 07-20-88	Harpoon foreshaft	Walrus tusk	8.0 x 1.2	Insig. damage	AM Kivak
6063	86 - 11-29-96	Harpoon foreshaft	Bone	7.5 x 0.8	Insig. damage	AM Sireniki
6064	86 - 11-29-96	Harpoon foreshaft	Bone	9.1 x 1.3	Insig. damage	AM Sireniki
6250	35 - 07-10-97	Harpoon foreshaft	Walrus tusk	8.1 x 1.1	Insig. damage	AM Singak
6642	13 - 03-20-98	Harpoon foreshaft	Walrus tusk	9.35 x 1.1	Sig. damage	AM Enmelen
6937	38 - 09-01-98	Harpoon foreshaft	Walrus tusk	8.15 x 1.5	Sig. damage	AM Sireniki
6953	40 - 09-02-98	Harpoon foreshaft	Walrus tusk	12.0 x 1.6	Sig. damage	AM Yryrak
7028	59 - 11-04-98	Harpoon foreshaft	Walrus tusk	11.4 x 1.2	Insig. damage	EP Chechen/Tasik
7029	59 - 11-04-98	Harpoon foreshaft	Walrus tusk	10.7 x 1.2	Complete	EP Chechen/Tasik
2672/1	01 - 01-02-90	Harpoon foreshaft	Walrus tusk	14.7 x 1.2	Insig. damage	AM Kivak
2672/2	01 - 01-02-90	Harpoon foreshaft	Walrus tusk	9.2 x 1.3	Sig. damage	AM Kivak
7119	09 - 03-18-99	Harpoon foreshaft	Bone	11.0 x 1.4	Insig. damage	AM Kivak
7134	15 - 05-20-99	Harpoon foreshaft	Walrus tusk	11.2 x 1.8	Insig. damage	AM Sireniki
3112	37 - 10-12-93	Harpoon foreshaft (frag.)	Bone	8.6 x 1.4	Insig. damage	AM Sireniki
3106	37 - 10-12-93	Harpoon foreshaft, closed	Walrus tusk	9.3 x 1.0	Insig. damage	AM Sireniki
2672/3	01 - 01-02-90	Harpoon foreshaft, closed	Walrus tusk	13.5 x 1.1	Insig. damage	AM Kivak
6313	44 - 08-03-97	Foreshaft of a whaling harpoon head	Walrus tusk	15.0 x 1.2	Sig. damage	AM Kivak
4414	01 - 05-15-85	End point	Stone	3.6 x 2.6	Complete	AM Sireniki
4492	09 - 07-20-88	End point (blank)	Stone	5.85 x 2.4	Complete	AM Kivak
6189	27 - 06-10-97	End point (blank)	met. slate	6.9 x 4.4	Complete	AM Avan
4406	01 - 05-15-85	End point for a toggling harpoon head	Stone	3.5 x 2.5	Complete	AM Sireniki
4407	01 - 05-15-85	End point for a toggling harpoon head	Stone	3.9 x 1.8	Complete	AM Sireniki
4415	01 - 05-15-85	End point for a toggling harpoon head	Stone	5.4 x 2.3	Complete	AM Sireniki
4488	09 - 07-20-88	End point for a toggling harpoon head	Stone	3.3 x 2.3	Insig. damage	AM Kivak
4778	43 - 09-10-94	End point for a toggling harpoon head	met. slate	5.4 x 4.2	Complete	AM Avan
103	01 - 05-15-85	End point for a toggling harpoon head (blank)	Stone	5.5 x 3.5	Insig. damage	AM Sireniki
104	01 - 05-15-85	End point for a toggling harpoon head (blank)	Stone	8.0 x 4.0	Insig. damage	AM Sireniki
4328	02 - 05-25-85	End point for a toggling harpoon head (blank)	Stone	6.7 x 3.5	Complete	AM Enmelen
4408	01 - 05-15-85	End point for a toggling harpoon head (blank)	Stone	7.5 x 2.5	Complete	AM Sireniki
5306	47 - 08-25-95	End point for a toggling harpoon head (frag.)	met. slate	3.4 x 2.3	Sig. damage	AM Yryrak
6266	37 - 07-14-97	End point for a toggling harpoon head (frag.)	Stone	2.8 x 2.0	Fr., complete	AM Kivak

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6636	12 - 03-20-98	Winged object	Walrus tusk	14.15 x 4.4	Sig. damage	AM Emmelen
7126	14 - 05-07-99	Winged object	Walrus tusk	14.5 x 6.5	Complete	AM Chechen
4830	54 - 12-13-94	Winged object	Walrus tusk	13.0 x 5.0	Sig. damage	AM Providenskiy Dist.
2674	01 - 01-02-90	Winged object (frag.)	Tusk	4.4 x 3.7	Sig. damage	AM Avan
2667	02m/003-02-91	Winged object (frag.)	Walrus tusk	9.5 x 5.7	damage	AM Avan
2669	06 - 07-20-85	Winged object (frag.)	Walrus tusk	10.2 x 5.1	Sig. damage	AM Kivak
5470	65 - 11-30-95	Winged object (frag.)	Walrus tusk	13.7 x 6.2	Complete	AM Kivak
5072	62 - 12-29-94	Winged object (blank, frag.)	Wd., metal	10.0 x 2.0	Sig. damage	EP Unazik
2639	01 - 01-02-90	Ice staff (frag.)	Tusk	17.3 x 3.8	Insig. damage	AM Avan
2661	02m/003-02-91	Whaling harpoon head	Walrus tusk	19.6 x 3.3	Sig. damage	AM Kivak
3461	01 - 01-02-90	Whaling harpoon head	Walrus tusk	15.8 x 3.4	Sig. damage	AM Kivak
6128	08 - 02-28-97	Whaling harpoon head	Walrus tusk	17.1 x 3.8	Insig. damage	AM Arakamchechen
6934	35 - 08-31-98	Whaling harpoon head	Walrus tusk	14.3 x 4.2	Sig. damage	AM Sireniki
1689/1	19 - 10-13-89	Whaling harpoon head	Walrus tusk	15.9 x 3.6	Sig. damage	AM Emmelen
85	01 - 05-15-85	Whaling harpoon head (frag.)	Walrus tusk	12.0 x 3.35	Sig. damage	AM Sireniki
86	01 - 05-15-85	Whaling harpoon head (frag.)	Walrus tusk	14.35 x 3.5	Sig. damage	AM Sireniki
3386	20 - 10-09-90	Whaling harpoon head (frag.)	Walrus tusk	7.0 x 1.5	Insig. damage	AM Providenskiy Dist.
3387	20 - 10-09-90	Whaling harpoon head (frag.)	Walrus tusk	9.5 x 1.5	Sig. damage	AM Providenskiy Dist.
5783	34 - 06-10-96	Whaling harpoon head (frag.)	Walrus tusk	12.1 x 3.7	Sig. damage	AM Uelen
109	01 - 05-15-85	Whaling spear head	Stone	6.5 x 4.0	Insig. damage	AM Sireniki
4527	09 - 07-20-88	Whaling spear head (frag.)	Stone	8.0 x 6.75	Sig. damage	AM Kivak
4353	02 - 05-25-85	Whaling spear head (blank)	Stone	11.4 x 7.2	Complete	AM Emmelen
4347	02 - 05-25-85	Whaling spear head (frag.)	Stone	6.0 x 6.3	Complete	AM Emmelen
6104	87 - 12-04-96	Whaling head	Stone	7.4 x 2.2	Insig. damage	AM Vankarem
4493	09 - 07-10-88	Head of an end point (blank)	Stone	7.2 x 3.5	Complete	AM Kivak
4459	09 - 07-10-88	Spear point	Bone	27.1 x 2.8	Insig. damage	AM Kivak
6939	38 - 09-01-98	Spear point	Walrus tusk	20.9 x 2.5	Insig. damage	AM Sireniki
4120	48 - 12-07-93	Spear point (frag.)	Walrus bone	18.5 x 2.7	Complete	AM Providenskiy Dist.
6105	87 - 12-04-96	Whaling spear point	Stone	5.9 x 4.5	Sig. damage	AM Vankarem
1691/2	19 - 10-13-89	Walrus harpoon head	Walrus tusk	9.6 x 2.4	Sig. damage	AM Emmelen
7137	15 - 05-20-99	Ice pick	Walrus tusk	17.0 x 3.0	Insig. damage	AM Sireniki
6860	22 - 04-10-98	Harpoon ice pick	Walrus tusk	16.7 x 2.8	Insig. damage	AM Numligran
2676	01 - 01-02-90	Harpoon ice pick	Bone	28.4 x 3.8	Complete	AM Avan
3072	35 - 09-24-93	Harpoon ice pick	Walrus tusk	17.5 x 2.3	Insig. damage	AM Sireniki

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3146	37 - 10-12-93	Harpoon ice pick	Walrus tusk	15.5 x 3.5	Insig. damage	AM Sireniki
3153	37 - 10-12-93	Harpoon ice pick	Bone	10.7 x 2.2	Complete	AM Sireniki
3159	56 - 02-19-91	Harpoon ice pick	Walrus tusk	14.51 x 1.85	Complete	AM Emmelen
3171	37 - 10-12-93	Harpoon ice pick	Bone	21.0 x 1.9	Insig. damage	AM Sireniki
3249	39 - 10-26-93	Harpoon ice pick	Bone	24.5 x 3.3	Insig. damage	AM Sireniki
3252	39 - 10-26-93	Harpoon ice pick	Walrus tusk	16.0 x 2.1	Complete	AM Sireniki
3256	39 - 10-26-93	Harpoon ice pick	Walrus tusk	11.0 x 2.1	Insig. damage	AM Sireniki
3263	39 - 10-26-93	Harpoon ice pick	Walrus tusk	19.5 x 2.5	Insig. damage	AM Sireniki
3270	39 - 10-26-93	Harpoon ice pick	Walrus tusk	16.0 x 2.5	Insig. damage	AM Sireniki
3276	39 - 10-26-93	Harpoon ice pick	Walrus tusk	11.0 x 2.0	Complete	AM Sireniki
3281	39 - 10-26-93	Harpoon ice pick	Walrus tusk	11.1 x 2.3	Complete	AM Sireniki
4295	02 - 05-25-85	Harpoon ice pick	Walrus tusk	12.9 x 2.45	Sig. damage	AM Emmelen
4434	07 - 07-20-85	Harpoon ice pick	Walrus tusk	19.2 x 2.2	Insig. damage	AM Arakamchechen
5884	55 - 08-15-96	Harpoon ice pick	Walrus tusk	25.2 x 2.3	Insig. damage	AM Arakamchechen
6175	22 - 04-16-97	Harpoon ice pick	Bone	23.5 x 2.6	Insig. damage	AM Arakamchechen
6176	22 - 04-16-97	Harpoon ice pick	Walrus tusk	25.5 x 1.6	Complete	AM Arakamchechen
6394	81 - 11-20-97	Harpoon ice pick	Bone	24.5 x 2.7	Complete	EP Rudder
6938	38 - 09-01-98	Harpoon ice pick	Walrus tusk	20.2 x 2.6	Insig. damage	AM Sireniki
6992	50 - 09-14-98	Harpoon ice pick	Walrus tusk	9.9 x 2.4	Sig. damage	AM Nuvuk
7030	59 - 11-04-98	Harpoon ice pick	Walrus tusk	15.6 x 2.6	Sig. damage	EP Chechen/Tasik
7031	59 - 11-04-98	Harpoon ice pick	Walrus tusk	18.6 x 3.1	Complete	EP Chechen/Tasik
7032	59 - 11-04-98	Harpoon ice pick	Walrus tusk	17.1 x 2.7	Complete	EP Chechen/Tasik
6036	75 - 10-23-96	Harpoon ice pick (frag.)	Walrus bone	19.8 x 3.4	Insig. damage	EP Rudder
88	01 - 05-15-85	Toggling harpoon head	Bone	7.55 x 1.45	Insig. damage	AM Sireniki
89	01 - 05-15-85	Toggling harpoon head	Bone	7.1 x 1.8	Insig. damage	AM Sireniki
90	01 - 05-15-85	Toggling harpoon head	Ant., metal	8.2 x 2.2	Complete	AM Sireniki
91	01 - 05-15-85	Toggling harpoon head	Bone	9.0 x 1.5	Insig. damage	AM Sireniki
93	01 - 05-15-85	Toggling harpoon head	Bone	7.2 x 1.3	Sig. damage	AM Sireniki
133	01 - 05-15-85	Toggling harpoon head	Bone	5.5 x 1.7	Insig. damage	AM Sireniki
135	01 - 05-15-85	Toggling harpoon head	Bone	7.5 x 2.0	Insig. damage	AM Sireniki
137	01 - 05-15-85	Toggling harpoon head	Bone	10.0 x 2.0	Insig. damage	AM Sireniki
138	01 - 05-15-85	Toggling harpoon head	Bone	8.8 x 1.6	Sig. damage	AM Sireniki
139	01 - 05-15-85	Toggling harpoon head	Deer antler	9.15 x 1.7	Sig. damage	AM Sireniki
140	01 - 05-15-85	Toggling harpoon head	Bone	8.6 x 2.0	Insig. damage	AM Sireniki

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
1690	19 - 10-13-89	Toggling harpoon head	Bone	8.7 x 1.6	Complete	AM Enmelen
2653	02m/003-02-91	Toggling harpoon head	Bone	16.0 x 4.0	Complete	AM Providenskiy Dist.
2834	02m/003-02-91	Toggling harpoon head	Bone	9.2 x 2.7	Complete	AM Sireniki
2835	02m/003-02-91	Toggling harpoon head	Metal	18.0 x 1.5	Sig. damage	EP Rudder
3065	35 - 09-24-93	Toggling harpoon head	Walrus tusk	12.9 x 2.3	Sig. damage	AM Sireniki
3137	09 - 03-11-91	Toggling harpoon head	Bone	7.0 x 1.5	Insig. damage	AM Sireniki
3280	39 - 10-26-93	Toggling harpoon head	Bone	9.6 x 2.3	Insig. damage	AM Sireniki
3286	39 - 10-26-93	Toggling harpoon head	Bone	7.1 x 1.5	Sig. damage	AM Sireniki
3309	39 - 10-26-93	Toggling harpoon head	Bone	7.7 x 1.9	Complete	AM Sireniki
3329	39 - 10-26-93	Toggling harpoon head	Walrus tusk	7.6 x 1.85	Insig. damage	AM Sireniki
3462	01 - 01-02-90	Toggling harpoon head	Bone	7.0 x 1.6	Sig. damage	AM Kupukkyrat
3675	07 - 02-24-94	Toggling harpoon head	Metal, leather	29.3 x 2.1	Complete	AM Sireniki
3730	32 - 05-08-91	Toggling harpoon head	Bone	7 x 1, 65 x 1	Sig. damage	AM Sireniki
3736	32 - 05-08-91	Toggling harpoon head	Tusk	6.9 x 1.55	Complete	AM Sireniki
3739	32 - 05-08-91	Toggling harpoon head	Walrus tusk	9.9 x 1.6	Complete	AM Sireniki
4104	48 - 12-07-93	Toggling harpoon head	Deer antler	8.4 x 1, 8 x 1.1	Complete	AM Providenskiy Dist.
4106	48 - 12-07-93	Toggling harpoon head	Deer antler	8 x 2 x 1.05	Insig. damage	AM Providenskiy Dist.
4236	06 - 07-20-85	Toggling harpoon head	Bone	7.9 x 1.5	Sig. damage	AM Kivak
4290	02 - 05-25-85	Toggling harpoon head	Walrus tusk	8.5 x 2.1	Sig. damage	AM Enmelen
4291	02 - 05-25-85	Toggling harpoon head	Walrus tusk	7.8 x 1.8	Sig. damage	AM Enmelen
4371	02 - 05-25-85	Toggling harpoon head	Bone	12.3 x 1.65	Insig. damage	AM Enmelen
4509	09 - 07-20-88	Toggling harpoon head	Walrus tusk	11.6 x 2.2	Sig. damage	AM Kivak
4770	39 - 08-30-94	Toggling harpoon head	Bone	8.95 x 1.65	Complete	AM Enmelen
5457	63 - 10-19-95	Toggling harpoon head	Bone	7.1 x 1.8	Insig. damage	AM Sireniki
5749	23 - 03-12-96	Toggling harpoon head	Walrus tusk	9.9 x 1.9	Insig. damage	AM Providenskiy Dist.
5807	42 - 06-26-96	Toggling harpoon head	Deer Antler	9.3 x 1.9	Insig. damage	AM Arakamchechen
5814	47 - 07-15-96	Toggling harpoon head	Walrus tusk	6.8 x 1.9	Sig. damage	AM Kivak
5827	50 - 07-23-96	Toggling harpoon head	Bone porous	6.4 x 1.5	Insig. damage	AM Avan
5844	51 - 07-24-96	Toggling harpoon head	Bone	7.9 x 1.5	Insig. damage	AM Providenskiy Dist.
5845	51 - 07-24-96	Toggling harpoon head	Bone	6.6 x 1.5	Insig. damage	AM Providenskiy Dist.
5961	64 - 08-26-96	Toggling harpoon head	Walrus tusk	6.55 x 1.4	Insig. damage	AM Arakamchechen
6016	71 - 09-30-96	Toggling harpoon head	Walrus tusk	6.5 x 1.8	Insig. damage	AM Vankarem
6060	86 - 11-29-96	Toggling harpoon head	Bone	9.0 x 2.0	Insig. damage	AM Sireniki
6129	08 - 02-28-97	Toggling harpoon head	Walrus tusk	7.3 x 1.6	Sig. damage	AM Arakamchechen

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6185	27 - 06-10-97	Toggling harpoon head	Bone	8.2 x 1.5	Insig. damage	AM Avon
6249	35 - 07-10-97	Toggling harpoon head	Walrus tusk	7.8 x 1.9	Insig. damage	AM Singak
6317	45 - 08-03-97	Toggling harpoon head	Deer antler	6.6 x 1.4	Insig. damage	AM Kenishkhun
6352	55 - 09-03-97	Toggling harpoon head	Bone	8.2 x 2.2	Complete	AM Sireniki
6353	55 - 09-03-97	Toggling harpoon head	Bone	9.3 x 1.9	Complete	AM Sireniki
6399	88 - 12-18-97	Toggling harpoon head	Deer antler	8.3 x 2.2	Insig. damage	AM Sireniki
6452	02 - 01-27-98	Toggling harpoon head	Bone	9.0 x 1.9	Complete	AM Yanrakynnot
6872	25 - 05-25-98	Toggling harpoon head	Walrus tusk	8.6 x 2.0	Complete	AM Yanrakynnot
6970	46 - 09-09-98	Toggling harpoon head	Walrus tusk	8.3 x 2.3	Insig. damage	AM Providenskiy Dist.
6986	50 - 09-14-98	Toggling harpoon head	Walrus tusk	7.1 x 2.0	Insig. damage	AM Nuvuk
6990	50 - 09-14-98	Toggling harpoon head	Walrus tusk	7.1 x 1.8	Insig. damage	AM Nuvuk
6994	51 - 09-16-98	Toggling harpoon head	Walrus tusk	8.0 x 1.9	Complete	AM Nuvuk
6995	51 - 09-16-98	Toggling harpoon head	Walrus tusk	9.2 x 2.0	Insig. damage	AM Nuvuk
1689/2	19 - 10-13-89	Toggling harpoon head	Deer antler	9.0 x 2.05	Complete	AM Emmelen
1691/1	19 - 10-13-89	Toggling harpoon head	Bone	7.0 x 1.5	Sig. damage	AM Emmelen
7095	69 - 11-18-98	Toggling harpoon head	Tusk, stone	7.2 x 1.8	Complete	AM Chechen/Tasik
7096	69 - 11-18-98	Toggling harpoon head	Walrus tusk	11.8 x 2.3	Sig. damage	AM Chechen/Tasik
7097	69 - 11-18-98	Toggling harpoon head	Walrus tusk	10.4 x 2.4	Sig. damage	AM Chechen/Tasik
4229	06 - 07-20-85	Toggling harpoon head (frag.)	Walrus tusk	6.7 x 1.35	Complete	AM Kivak
4233	06 - 07-20-85	Toggling harpoon head (frag.)	Walrus tusk	8.0 x 1.4	Complete	AM Kivak
4443	09 - 07-20-88	Toggling harpoon head (frag.)	Walrus tusk	4.9 x 1.6	Complete	AM Kivak
4513	09 - 07-20-88	Toggling harpoon head (frag.)	Walrus tusk	5.15 x 1.1	Complete	AM Kivak
87	01 - 05-15-85	Toggling harpoon head (b)blank	Walrus tusk	10.75 x 2.3	Sig. damage	AM Sireniki
1693	19 - 10-13-89	Toggling harpoon head (b)blank	Walrus tusk	15.9 x 3.15	Insig. damage	AM Emmelen
2125	02 - 01-14-91	Toggling harpoon head (b)blank	Walrus tusk	16.8 x 2.2	Complete	AM Sireniki
2654	02m/003-02-91	Toggling harpoon head (b)blank	Walrus tusk	11.5 x 2.4	Complete	AM Emmelen
3066	35 - 09-24-93	Toggling harpoon head (b)blank	Walrus tusk	7.0 x 1.9	Insig. damage	AM Sireniki
3119	37 - 10-12-93	Toggling harpoon head (b)blank	Deer antler	8.3 x 1.7	Sig. damage	AM Sireniki
3257	39 - 10-26-93	Toggling harpoon head (b)blank	Walrus tusk	11.5 x 2.5	Complete	AM Sireniki
3288	39 - 10-26-93	Toggling harpoon head (b)blank	Walrus tusk	7.6 x 2.1	Insig. damage	AM Sireniki
4374	02 - 05-25-85	Toggling harpoon head (b)blank	Walrus tusk	11.25 x 2.5	Complete	AM Emmelen
5603	13 - 02-08-96	Toggling harpoon head (b)blank	Walrus tusk	9.6 x 2.2	Sig. damage	AM Lesovskii
5831	50 - 07-23-96	Toggling harpoon head (b)blank	Walrus tusk	7.1 x 2.3	Sig. damage	AM Avon
5885	55 - 08-15-96	Toggling harpoon head (b)blank	Walrus tusk	15.4 x 3.9	Complete	AM Arakamchechen

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6135	08 - 02-28-97	Toggling harpoon head (blank)	Walrus tusk	15.1 x 4.7	Insig. damage	AM Arakamchechen
6177	22 - 04-16-97	Toggling harpoon head (blank)	Walrus tusk	13.6 x 3.6	Insig. damage	AM Arakamchechen
6415	94 - 12-22-97	Toggling harpoon head (blank)	Walrus tusk	9.1 x 2.1	Complete	AM Arakamchechen
6987	50 - 09-14-98	Toggling harpoon head (blank)	Walrus tusk	13.1 x 2.5	Sig. damage	AM Nuvuk
6988	50 - 09-14-98	Toggling harpoon head (blank)	Walrus tusk	10.2 x 1.9	Complete	AM Nuvuk
6989	50 - 09-14-98	Toggling harpoon head (blank)	Walrus tusk	8.9 x 1.85	Complete	AM Nuvuk
95	01 - 05-15-85	Toggling harpoon head (frag.)	Walrus tusk	5.8 x 1.7	Sig. damage	AM Sireniki
96	01 - 05-15-85	Toggling harpoon head (frag.)	Walrus tusk	6.5 x 2.5	Sig. damage	AM Sireniki
97	01 - 05-15-85	Toggling harpoon head (frag.)	Walrus tusk	6.0 x 2.9	Sig. damage	AM Sireniki
132	01 - 05-15-85	Toggling harpoon head (frag.)	Antler	10.1 x 2.05	Sig. damage	AM Sireniki
134	01 - 05-15-85	Toggling harpoon head (frag.)	Tusk, stone	7 x 1, 7 x 1.4	Sig. damage	AM Sireniki
136	01 - 05-15-85	Toggling harpoon head (frag.)	Walrus tusk	7.3 x 2.0	Sig. damage	AM Sireniki
2655	01 - 05-15-85	Toggling harpoon head (frag.)	Walrus tusk	8.6 x 2.3	Insig. damage	AM Kivak
2679	01 - 01-02-90	Toggling harpoon head (frag.)	Tusk, metal	7.2 x 2.5	Sig. damage	AM Emmelen
4105	02m/003-02-91	Toggling harpoon head (frag.)	Walrus tusk	8.6 x 1.8	Sig. damage	AM Providenskiy Dist.
4359	48 - 12-07-93	Toggling harpoon head (frag.)	Walrus tusk	7.65 x 1.0	Sig. damage	AM Naukan
4363	47 - 11-16-94	Toggling harpoon head (frag.)	Walrus tusk	5.6 x 1.5	Sig. damage	AM Naukan
4382	47 - 11-16-94	Toggling harpoon head (frag.)	Walrus tusk	7.2 x 2.0	Insig. damage	AM Sireniki
6059	01 - 05-15-85	Toggling harpoon head (frag.)	Bone	8.6 x 2.1	Insig. damage	AM Sireniki
6134	86 - 11-29-96	Toggling harpoon head (frag.)	Bone	8.6 x 3.1	Complete Fr., complete	AM Arakamchechen
6200	08 - 02-28-97	Toggling harpoon head (frag.)	Walrus tusk	5.0 x 2.5	Complete Fr., complete	AM Kivak
6201	29 - 06-13-97	Toggling harpoon head (frag.)	Walrus tusk	5.1 x 1.7	Sig. damage	AM Sireniki
6996	29 - 06-13-97	Toggling harpoon head (frag.)	Walrus tusk	6.2 x 2.6	Insig. damage	AM Nuvuk
7130	51 - 09-16-98	Toggling harpoon head (frag.)	Walrus tusk	12.0 x 2.1	Sig. damage	AM Sireniki
7131	15 - 05-20-99	Toggling harpoon head (frag.)	Deer antler	9.5 x 1.7	Sig. damage	AM Sireniki
6061	15 - 05-20-99	Whaling toggling harpoon head	Deer antler	15.3 x 3.0	Insig. damage	AM Sireniki
6997	86 - 11-29-96	Toggling harpoon head (barbed)	Bone	8.7 x 2.1	Complete	AM Nuvuk
6998	51 - 09-16-98	Toggling harpoon head (barbed)	Deer antler	8.2 x 1.7	Sig. damage	AM Nuvuk
5278	51 - 09-16-98	Toggling harpoon head (barbed)	Deer antler	15.3 x 2.6	Sig. damage	AM Nuvuk
6312	40 - 07-27-95	Toggling harpoon head (blank)	Walrus tusk	8.7 x 2.7	Insig. damage	AM Kivak
2770	44 - 08-03-97	Toggling harpoon head (blank)	Walrus tusk	8.7 x 2.7	Insig. damage	AM Kivak
156	11 - 09-22-89	Stopper	Walrus tooth	2.3 x 1.5	Insig. damage	AM Naukan
158	01 - 05-15-85	Stopper-float mouthpiece	Walrus tusk	4.7 x 3.3	Insig. damage	AM Sireniki
159	01 - 05-15-85	Stopper-float mouthpiece	Wood	5.05 x 3.8	Insig. damage	AM Sireniki
			Wood	4.2 x 3.6	Complete	AM Sireniki

Equipment for hunting sea mammals (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
2768	11 - 09-22-89	Stopper-float mouthpiece	Walrus tusk	4.0 x 2.55	Insig. damage	AM Naukan
2821	09 - 03-11-91	Stopper-float mouthpiece	Walrus tusk	3.1 x 1.9	Complete	AM Sireniki
31	01 - 05-15-85	Whaling hand gun	Bronze	93.9 x 7.0	Complete	AM Sireniki
3173	37 - 10-12-93	Spike (for playing a game)	Walrus tusk	12.5 x 1.7	Insig. damage	AM Sireniki
4235	06 - 07-20-85	Spike (for playing a game)	Walrus tusk	11.1 x 1.4	Insig. damage	AM Kivak
4390	01 - 05-15-85	Spike (for playing a game)	Bone	13.6 x 1.2	Insig. damage	AM Sireniki
5650	09 - 07-20-88	Spike (for playing a game)	Walrus tusk	13.0 x 1.7	Insig. damage	AM Kivak
6024	71 - 09-30-96	Spike (for playing a game)	Walrus tusk	8.5 x 1.3	Insig. damage	AM Vankarem
3516	08 - 03-05-91	Net for seals	Skin	100	Insig. damage	AM Sireniki
6062	86 - 11-29-96	Wound plug	Walrus tusk	10.3 x 0.8	Complete	AM Sireniki
4317	02 - 05-25-85	Seal scraper	Wood	14.0 x 3.45	Sig. damage	AM Emmelen
6861	22 - 04-10-98	Seal scraper	Wood	28.8 x 3.6	Insig. damage	AM Nunligran
4127	48 - 12-07-93	Trident (fragment)	Walrus tusk	4.7 x 2.1	Complete	AM Providenskiy Dist.
4755	39 - 08-30-94	Ornamented trident (fragment)	Walrus tusk	9.8 x 6.4	Complete	AM Emmelen
4834	54 - 12-13-94	Harpoon finger support	Walrus tusk	2.7 x 2.0	Complete	AM Providenskiy Dist.

## Equipment for hunting land mammals and birds

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
2665	02/mo03-02-91	Lateral tine of a bird dart	Walrus tusk	24.3 x 1.2	Insig. damage	AM	Avan
4231	06 - 07-20-85	Lateral tine of a bird dart	Walrus tusk	8.7 x 0.9	Insig. damage	AM	Kivak
6339	51 - 08-22-97	Mouthpiece	Walrus tusk	5.0 x 3.0	Sig. damage	AM	Uniramkyt
47	01 - 05-15-85	Bird bola weight	Walrus tusk	7.0 x 3.0	Insig. damage	AM	Sireniki
49	01 - 05-15-85	Bird bola weight	Walrus tusk	5.0 x 2.0	Insig. damage	AM	Sireniki
51	01 - 05-15-85	Bird bola weight	Walrus tusk	4.7 x 2.7	Insig. damage	AM	Sireniki
52	01 - 05-15-85	Bird bola weight	Bone	3.5	Insig. damage	AM	Sireniki
53	01 - 05-15-85	Bird bola weight	Bone	5.1 x 4.1	Complete	AM	Sireniki
54	01 - 05-15-85	Bird bola weight	Bone	5.0	Insig. damage	AM	Sireniki
149	01 - 05-15-85	Bird bola weight	Walrus tusk	5.0 x 2.5	Insig. damage	AM	Sireniki
166	01 - 05-15-85	Bird bola weight	Bone	2.1 x 1.5	Insig. damage	AM	Sireniki
3068	35 - 09-24-93	Bird bola weight	Bone	4.2 x 2.5	Complete	AM	Sireniki
3116	37 - 10-12-93	Bird bola weight	Bone	5.5 x 1.7	Insig. damage	AM	Sireniki
3131	37 - 10-12-93	Bird bola weight	Bone	4.6 x 1.2	Insig. damage	AM	Sireniki
3194	37 - 10-12-93	Bird bola weight	Walrus tusk	3.0 x 1.2	Insig. damage	AM	Sireniki
3195	37 - 10-12-93	Bird bola weight	Walrus tusk	2.7 x 1.1	Insig. damage	AM	Sireniki
3196	37 - 10-12-93	Bird bola weight	Walrus tusk	3.0 x 1.5	Insig. damage	AM	Sireniki
3243	39 - 10-26-93	Bird bola weight	Walrus tusk	3.4 x 1.6	Complete	AM	Sireniki
4115	48 - 12-07-93	Bird bola weight	Walrus tooth	4.15 x 1.9	Complete	AM	Providen. Dist.
4213	06 - 07-20-85	Bird bola weight	Walrus tooth	4.2 x 1.4	Sig. damage	AM	Kivak
4214	06 - 07-20-85	Bird bola weight	Walrus tooth	4.4 x 1.8	Sig. damage	AM	Kivak
4215	06 - 07-20-85	Bird bola weight	Walrus tooth	4.1 x 1.4	Sig. damage	AM	Kivak
4216	06 - 07-20-85	Bird bola weight	Walrus tooth	5.1 x 1.6	Complete	AM	Kivak
4217	06 - 07-20-85	Bird bola weight	Walrus tooth	5.3 x 1.5	Sig. damage	AM	Kivak
4218	06 - 07-20-85	Bird bola weight	Walrus tooth	7.5 x 2.1	Insig. damage	AM	Kivak
4220	06 - 07-20-85	Bird bola weight	Walrus tusk	4.9 x 2.6	Sig. damage	AM	Kivak
4222	06 - 07-20-85	Bird bola weight	Walrus tusk	4.9 x 2.7	Insig. damage	AM	Kivak
4238	06 - 07-20-85	Bird bola weight	Walrus tooth	4.4 x 1.95	Complete	AM	Kivak
4281	07 - 07-20-85	Bird bola weight	Bone	5.0 x 1.9	Insig. damage	AM	Arakamchechen
4283	07 - 07-20-85	Bird bola weight	Walrus tusk	6.0 x 2.6	Insig. damage	AM	Arakamchechen
4448	06 - 07-20-85	Bird bola weight	Deer antler	3.7 x 1.9	Complete	AM	Kivak
4784	43 - 09-10-94	Bird bola weight	Walrus tusk	4.8 x 2.3	Insig. damage	AM	Avan
5273	40 - 07-27-95	Bird bola weight	Walrus tooth	5.0 x 2.2	Insig. damage	AM	Kivak
6253	35 - 07-10-97	Bird bola weight	Walrus tooth	3.9 x 2.1	Complete	AM	Singak
6326	49 - 08-22-97	Bird bola weight	Walrus tusk	3.9 x 2.5	Insig. damage	AM	Arakamchechen

Equipment for hunting land mammals and birds (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6337	51 - 08-22-97	Bird bola weight	Walrus tusk	4.6 x 2.6	Insig. damage	AM Uniramkyt
6944	38 - 09-01-98	Bird bola weight	Walrus tusk	6.1 x 3.7	Complete	AM Sireniki
7033	59 - 11-04-98	Bird bola weight	Walrus bone	5.6 x 3.0	Insig. damage	EP Chechen/Tasik
7034	59 - 11-04-98	Bird bola weight	Walrus tusk	3.8 x 3.2	Insig. damage	EP Chechen/Tasik
7129	15 - 05-20-99	Bird bola weight	Walrus tooth	5.8 x 1.8	Insig. damage	AM Sireniki
3260	39 - 10-26-93	Tightener for a bow	Walrus tusk	9.0 x 1.2	Insig. damage	AM Sireniki
3267	39 - 10-26-93	Tightener for a bow	Walrus tusk	12.5 x 1.6	Insig. damage	AM Sireniki
5649	09 - 07-20-88	Tightener for a bow	Walrus tusk	9.3 x 1.3	Sig. damage	AM Kivak
6371	63 - 10-03-97	Tightener for a bow	Walrus tusk	11.1 x 1.2	Complete	AM Sireniki
6202	29 - 06-13-97	Tine for a dart (fragment)	Walrus tusk	6.4 x 1.0	Complete	AM Cape Lesovskii
4326	02 - 05-25-85	Tine for a bird dart	Walrus tusk	10.9 x 1.2	Sig. damage	AM Emmelen
6067	86 - 11-29-96	Tine for a bird dart	Bone	8.0 x 0.7	Complete	AM Sireniki
3726	32 - 05-08-91	Tine for a bird dart (fragment)	Walrus tusk	6.5 x 1.0	Complete	AM Sireniki
6252	35 - 07-10-97	Tine for a bird dart (fragment)	Walrus tusk	10.2 x 1.0	Complete	AM Singak
4485	09 - 07-20-88	End blade for an arrow point	Stone	4.3 x 2.4	Complete	AM Kivak
4487	09 - 07-20-88	End blade for an arrow point	Stone	4.5 x 1.8	Complete	AM Kivak
4490	09 - 07-20-88	End blade for an arrow point	Stone	5.15 x 2.4	Complete	AM Kivak
5952	63 - 08-26-96	End blade for an arrow point	Stone	3.1 x 1.9	Complete	AM Yryrak
7108	06 - 03-11-99	Blade for an arrow point	Stone	3.1 x 2.0	Complete	AM Plover
6372	63 - 10-03-97	Spear blade	Bone	20.7 x 3.0	Complete	AM Sireniki
4401	01 - 05-15-85	End blade (fragment)	Stone	6.5 x 3.4	Complete	AM Sireniki
7044	59/1 - 11-10-98	Trap (a part)	Bone	23.6 x 16.4	Sig. damage	EP Rudder
6460	04 - 01-28-98	Bow	Wood	114.8 x 4.9	Sig. damage	EP Yanrakynnot
3186	37 - 10-12-93	Decorated cover plate	Bone	3.7 x 2.2	Insig. damage	AM Sireniki
4375	02 - 05-25-85	Arrow point	Walrus tusk	4.1 x 2.3	Sig. damage	AM Emmelen
40	01 - 05-15-85	Dart point	Stone	10.0 x 3.0	Insig. damage	AM Sireniki
165	01 - 05-15-85	Dart point	Bone	26.0 x 2.0	Insig. damage	AM Sireniki
3154	37 - 10-12-93	Dart point	Deer antler	14.5 x 2.0	Insig. damage	AM Sireniki
4209	06 - 07-20-85	Dart point	Stone	4.6 x 3.3	Complete	AM Kivak
4331	02 - 05-25-85	Dart point	Stone	4.2 x 2.8	Complete	AM Emmelen
4334	02 - 05-25-85	Dart point	Stone	5.4 x 2.4	Complete	AM Emmelen
4402	01 - 05-15-85	Dart point	Stone	6.0 x 3.0	Complete	AM Sireniki
4404	01 - 05-15-85	Dart point	Stone	5.0 x 3.0	Insig. damage	AM Sireniki
4409	01 - 05-15-85	Dart point	Stone	7.5 x 2.5	Complete	AM Sireniki

## Equipment for hunting land mammals and birds (cont.).

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
4410	01 - 05-15-85	Dart point	Stone	6.0 x 3.1	Insig. damage	AM	Sireniki
4411	01 - 05-15-85	Dart point	Stone	4.6 x 2.1	Complete	AM	Sireniki
4412	01 - 05-15-85	Dart point	Stone	4.7 x 2.4	Complete	AM	Sireniki
4413	01 - 05-15-85	Dart point	Stone	5.1 x 2.5	Complete	AM	Sireniki
4480	09 - 07-20-88	Dart point	Stone	4.7 x 3.6	Sig. damage	AM	Kivak
4484	09 - 07-20-88	Dart point	Stone	5.3 x 3.25	Sig. damage	AM	Kivak
4530	09 - 07-20-88	Dart point	Stone	6.1 x 3.0	Insig. damage	AM	Enmelen
4532	09 - 07-20-88	Dart point	Stone	3.6 x 3.1	Sig. damage	AM	Kivak
5442	62 - 10-19-95	Dart point	Stone	6.6 x 2.6	Complete	AM	Sireniki
6255	35 - 07-10-97	Dart point	Stone	5.5 x 2.5	Complete	AM	Singak
6454	02 - 01-27-98	Dart point	Bone	29.0 x 1.75	Complete	AM	Yanrakynnot
30	01 - 05-15-85	Spear point	Stone	8.5 x 7.0	Complete	AM	Sireniki
36	01 - 05-15-85	Spear point	Stone	11.3 x 3.5	Insig. damage	AM	Sireniki
37	01 - 05-15-85	Spear point	Stone	14.5 x 8.0	Insig. damage	AM	Sireniki
38	01 - 05-15-85	Spear point	Stone	9.5 x 5.8	Insig. damage	AM	Sireniki
39	01 - 05-15-85	Spear point	Stone	12.0 x 6.0	Insig. damage	AM	Sireniki
42	01 - 05-15-85	Spear point	Stone	8.0 x 5.7	Insig. damage	AM	Sireniki
43	01 - 05-15-85	Spear point	Stone	11.2 x 3.5	Insig. damage	AM	Sireniki
44	01 - 05-15-85	Spear point	Stone	9.5 x 3.5	Insig. damage	AM	Sireniki
45	01 - 05-15-85	Spear point	Stone	8.0 x 3.5	Insig. damage	AM	Sireniki
46	01 - 05-15-85	Spear point	Stone	7.5 x 4.5	Insig. damage	AM	Sireniki
106	01 - 05-15-85	Spear point	Stone	9.2 x 3.5	Insig. damage	AM	Sireniki
107	01 - 05-15-85	Spear point	Stone	6.5 x 3.0	Insig. damage	AM	Sireniki
108	01 - 05-15-85	Spear point	Stone	8.2 x 3.5	Insig. damage	AM	Sireniki
3114	37 - 10-12-93	Spear point	Bone	12.2 x 3.1	Insig. damage	AM	Sireniki
3115	37 - 10-12-93	Spear point	Bone	12.0 x 2.3	Insig. damage	AM	Sireniki
3164	37 - 10-12-93	Spear point	Bone	14.5 x 2.0	Insig. damage	AM	Sireniki
3178	37 - 10-12-93	Spear point	Metal	11.7 x 4.3	Insig. damage	AM	Sireniki
4205	06 - 07-20-85	Spear point	Stone	7.3 x 3.6	Insig. damage	AM	Kivak
4332	02 - 05-25-85	Spear point	Stone	6.8 x 3.8	Complete	AM	Enmelen
4339	02 - 05-25-85	Spear point	Stone	6.0 x 3.65	Complete	AM	Enmelen
4343	02 - 05-25-85	Spear point	Stone	6.1 x 3.1	Insig. damage	AM	Enmelen
4346	02 - 05-25-85	Spear point	Stone	5.0 x 4.0	Insig. damage	AM	Enmelen
4388	01 - 05-15-85	Spear point	Bone	7.9 x 4.0	Complete	AM	Sireniki

Equipment for hunting land mammals and birds (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4520	09 - 07-20-88	Spear point	Stone	6.7 x 4.1	Sig. damage	AM Kivak
6041	76 - 10-24-96	Spear point	Stone	3.9 x 6.3	Insig. damage	AM Sireniki
6101	86 - 11-29-96	Spear point	Wood	17.9 x 3.6	Insig. damage	AM Sireniki
3290	39 - 10-26-93	Spear point	Bone	20.0 x 2.0	Insig. damage	AM Sireniki
4476	09 - 07-20-88	Spear point	Stone	10.2 x 7.7	Complete	AM Kivak
4489	09 - 07-20-88	Spear point (blank)	Stone	8.5 x 5.6	Complete	AM Kivak
161	01 - 05-15-85	Spear point (blank)	Bone	28.5 x 2.0	Insig. damage	AM Sireniki
162	01 - 05-15-85	Spear/dart point	Deer antler	13.0 x 2.0	Insig. damage	AM Sireniki
163	01 - 05-15-85	Spear/dart point	Bone	20.0 x 2.0	Insig. damage	AM Sireniki
164	01 - 05-15-85	Spear/dart point	Bone	27.5 x 2.5	Insig. damage	AM Sireniki
167	01 - 05-15-85	Spear/dart point	Bone	21.5 x 2.3	Insig. damage	AM Sireniki
4528	09 - 07-20-88	Spear/dart point	Stone	5.2 x 2.7	Sig. damage	AM Kivak
4775	43 - 09-10-94	Spear/dart point	Stone	4.9 x 3.1	Complete	AM Avan
6273	37 - 07-14-97	Spear/dart point	Antler, metal	17.8 x 2.4	Sig. damage	EP Kivak
6390	78 - 11-20-97	Spear/dart point	Stone	5.0 x 2.8	Complete	AM Numligran
7035	59 - 11-04-98	Spear/dart point	Walrus tusk	18.6 x 1.6	Complete	EP Chechen/Tasik
7114	06 - 03-11-99	Spear/knife point	Wood	19.9 x 2.8	Sig. damage	AM Plover
2664	01 - 01-02-90	Bird dart point	Walrus tusk	24.8 x 1.5	Insig. damage	AM Avan
2658	27 - 11-14-89	Arrow point	Bone	17.8 x 1.4	Complete	AM Avan
2760	02m/03-02-91	Arrow point	Deer antler	15.1 x 1.3	Insig. damage	AM Kivak
3118	37 - 10-12-93	Arrow point	Deer antler	10.0 x 1.3	Insig. damage	AM Sireniki
3188	37 - 10-12-93	Arrow point	Walrus tusk	8.7 x 1.6	Sig. damage	AM Sireniki
3244	39 - 10-26-93	Arrow point	Deer antler	11.0 x 1.5	Insig. damage	AM Sireniki
3287	39 - 10-26-93	Arrow point	Bone	10.2 x 1.7	Insig. damage	AM Sireniki
3301	39 - 10-26-93	Arrow point	Deer antler	12.0 x 1.2	Insig. damage	AM Sireniki
3330	39 - 10-26-93	Arrow point	Walrus tusk	6.7 x 1.5	Insig. damage	AM Sireniki
3724	32 - 05-08-91	Arrow point	Walrus tusk	14.5 x 2.0	Complete	AM Sireniki
3727	32 - 05-08-91	Arrow point	Walrus tusk	8.2 x 1.1	Insig. damage	AM Sireniki
3729	32 - 05-08-91	Arrow point	Bone	16.1 x 2.0	Complete	AM Sireniki
3734	32 - 05-08-91	Arrow point	Bone	10.3 x 1.6	Insig. damage	AM Sireniki
4107	48 - 12-07-93	Arrow point	Walrus tusk	9.75 x 1.55	Sig. damage	AM Providenskiy Dist.
4108	48 - 12-07-93	Arrow point	Walrus tusk	10.95 x 1.4	Insig. damage	AM Providenskiy Dist.
4228	06 - 07-20-85	Arrow point	Bone	10.6 x 1.5	Sig. damage	AM Kivak
4268	07 - 07-20-85	Arrow point	Walrus tusk	14.3 x 1.3	Sig. damage	AM Arakamechen

Equipment for hunting land mammals and birds (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4296	02 - 05-25-85	Arrow point	Deer antler	12.3 x 1.65	Insig. damage	AM Enmelen
4314	02 - 05-25-85	Arrow point	Deer antler	18.9 x 1.65	Sig. damage	AM Enmelen
4316	02 - 05-25-85	Arrow point	Deer antler	8.65 x 2.0	damage	AM Enmelen
4320	02 - 05-25-85	Arrow point	Walrus tusk	5.5 x 1.25	Sig. damage	AM Enmelen
4356	47 - 11-16-94	Arrow point	Walrus tusk	16.35 x 1.3	Complete	AM Naukan
4440	06 - 07-20-85	Arrow point	Deer antler	10.8 x 1.4	Sig. damage	AM Kivak
4508	09 - 07-20-88	Arrow point	Bone	4.4 x 2.3	Sig. damage	AM Kivak
4767	39 - 09-30-94	Arrow point	Walrus tusk	14.45 x 1.6	Complete	AM Enmelen
4769	39 - 09-30-94	Arrow point	Deer antler	13.1 x 1.9	Complete	AM Enmelen
4772	39 - 09-30-94	Arrow point	Bone	6.4 x 1.5	Insig. damage	AM Enmelen
4773	39 - 09-30-94	Arrow point	Walrus tusk	5.9 x 1.6	Complete	AM Enmelen
4791	43 - 09-10-94	Arrow point	Walrus tusk	3.6 x 1.6	Insig. damage	AM Avan
4792	43 - 09-10-94	Arrow point	Walrus tusk	4.9 x 2.1	Sig. damage	AM Avan
5058	52 - 11-29-94	Arrow point	Deer antler	12.7 x 1.0	Insig. damage	AM Kivak
5456	63 - 10-19-95	Arrow point	Bone	18.6 x 1.4	Insig. damage	AM Sireniki
5646	09 - 07-20-88	Arrow point	Deer antler	12.4 x 1.1	Insig. damage	AM Kivak
6019	71 - 09-30-96	Arrow point	Bone	10.2 x 1.9	Insig. damage	AM Vankarem
6102	86 - 11-29-96	Arrow point	Bone	11.9 x 1.9	Insig. damage	AM Sireniki
6130	08 - 02-28-97	Arrow point	Deer antler	10.4 x 1.1	Insig. damage	AM Arakamchechen
6251	35 - 07-10-97	Arrow point	Bone	4.3 x 1.0	Sig. damage	AM Singak
6940	38 - 09-01-98	Arrow point	Deer antler	10.4 x 1.8	Insig. damage	AM Sireniki
6941	38 - 09-01-98	Arrow point	Deer antler	11.2 x 1.5	Insig. damage	AM Sireniki
6943	38 - 09-01-98	Arrow point	Walrus tusk	9.4 x 1.0	Insig. damage	AM Sireniki
6948	38 - 09-01-98	Arrow point	Walrus tusk	12.7 x 3.2	Complete	AM Sireniki
7039	59/1 - 11-10-98	Arrow point	Deer antler	8.4 x 2.05	Sig. damage	EP Rudder
4248/1	07 - 07-20-85	Arrow point	Bone	19.5 x 1.15	Sig. damage	AM Arakamchechen
4248/2	07 - 07-20-85	Arrow point	Walrus tusk	19.0 x 1.0	Sig. damage	AM Arakamchechen
4248/3	07 - 07-20-85	Arrow point	Bone	18.5 x 1.5	Sig. damage	AM Arakamchechen
4504/3	09 - 07-20-88	Arrow point	Walrus tusk	5.45 x 1.9	Insig. damage	AM Kivak
6400	88 - 12-18-97	Arrow point	Bone	15.7 x 1.4	Complete	AM Sireniki
6401	88 - 12-18-97	Arrow point	Bone	11.3 x 1.6	Insig. damage	AM Sireniki
6402	88 - 12-18-97	Arrow point	Bone	15.7 x 1.4	Sig. damage	AM Sireniki
7110	06 - 03-11-99	Arrow point	Deer antler	10.8 x 2.0	Insig. damage	AM Plover
7120	09 - 03-18-99	Arrow point	Bone	10.0 x 0.9	Insig. damage	AM Kivak
7135	15 - 05-20-99	Arrow point (blank)	Walrus tusk	8.5 x 2.5	Complete	AM Sireniki

Equipment for hunting land mammals and birds (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3124	37 - 10-12-93	Arrow point (fragment)	Walrus tusk	4.8 x 0.7	Insig. damage	AM Sireniki
3733	32 - 05-08-91	Arrow point (fragment)	Walrus tusk	7.2 x 1.0	Insig. damage	AM Sireniki
4352	02 - 05-25-85	Arrow point (fragment)	Deer antler	5.35 x 1.0	Insig. damage	AM Emmelen
5830	50 - 07-23-96	Arrow point (fragment)	Deer antler	5.6 x 1.4	Insig. damage	AM Avan
6066	86 - 11-29-96	Faceted arrow point	Bone	15.2 x 2.1	Complete	AM Sireniki
3293	39 - 10-26-93	Arrow point with lateral barbs	Bone	9.0 x 1.4	Insig. damage	AM Sireniki
3294	39 - 10-26-93	Arrow point with lateral barbs	Bone	16.0 x 2.0	Insig. damage	AM Sireniki
3300	39 - 10-26-93	Arrow point with lateral barbs	Walrus tusk	9.0 x 1.4	Insig. damage	AM Sireniki
3308	39 - 10-26-93	Arrow point with lateral barbs	Walrus tusk	10.0 x 0.9	Insig. damage	AM Sireniki
3311	39 - 10-26-93	Arrow point with lateral barbs	Walrus tusk	7.5 x 1.4	Insig. damage	AM Sireniki
6065	86 - 11-29-96	Arrow point with end blade	Antler, tuff	14.0 x 1.6	Complete	AM Sireniki
2769	11 - 09-22-89	Blunt arrow point	Walrus tusk	2.65 x 1.0	Insig. damage	AM Naukan
3184	37 - 10-12-93	Blunt arrow point	Bone	9.0 x 1.6	Insig. damage	AM Sireniki
4386	01 - 05-15-85	Arrow/dart point	Bone	19.0 x 1.0	Insig. damage	AM Sireniki
48	01 - 05-15-85	Blunt point	Walrus tusk	4.0 x 2.0	Insig. damage	AM Sireniki
50	01 - 05-15-85	Blunt point	Walrus tusk	4.5 x 2.3	Insig. damage	AM Sireniki
2650	01 - 01-02-90	Blunt point	Bone	10.8 x 4.1	Insig. damage	AM Avan
5276	40 - 07-27-95	Stemmed point	Stone	10.7 x 5.6	Insig. damage	AM Kivak
2645	02m/003-02-91	Point/blade	Stone	5.7 x 2.8	Complete	AM Emmelen
3163	37 - 10-12-93	Wrist guard	Deer antler	6.2 x 3.2	Insig. damage	AM Sireniki
3179	37 - 10-12-93	Wrist guard	Walrus tusk	11.1 x 1.9	Insig. damage	AM Sireniki
3180	37 - 10-12-93	Wrist guard	Deer antler	12.6 x 1.8	Insig. damage	AM Sireniki
6069	86 - 11-29-96	Wrist guard	Walrus tusk	6.4 x 4.1	Complete	AM Sireniki
2710	02m/003-02-91	Ornamented wrist guard	Walrus tusk	5.3 x 2.7	Sig. damage	AM Avan
2777	02m/003-02-91	Snow goggles	Wood	11.0 x 3.0	Sig. damage	AM Emmelen
5815	47 - 07-15-96	Float	Wood	2.5 x 1.4	Complete	AM Kivak
6268	37 - 07-14-97	Float	Wood	2.6 x 1.7	Complete	AM Kivak
6269	37 - 07-14-97	Float	Wood	2.7 x 1.1	Insig. damage	AM Kivak
2646/1	02m/003-02-91	Float	Wood	2.1 x 1.4	Insig. damage	AM Kivak
2646/2	02m/003-02-91	Float	Wood	2.4 x 1.6	Insig. damage	AM Kivak
2662	02m/003-02-91	Central dart tine	Walrus tusk	7.7 x 1.2	Sig. damage	AM Kivak
3074	35 - 09-24-93	Central bird dart tine	Walrus tusk	10.1 x 1.1	Insig. damage	AM Sireniki
3725	32 - 05-08-91	Central bird dart tine	Bone	7.8 x 11.0	Complete	AM Sireniki
4118	48 - 12-07-93	Central bird dart tine	Walrus tusk	8.6 x 1.3	Insig. damage	AM Providenskiy Dist.

## Fishing equipment

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
3067	35 - 09-24-93	Lateral leister tine	Walrus tusk	8.1 x 1.0	Complete	AM	Sireniki
3185	37 - 10-12-93	Lateral leister tine	Wood	13.3 x 1.0	Insig. damage	AM	Sireniki
3275	39 - 10-26-93	Lateral leister tine	Bone	20.0 x 1.5	Insig. damage	AM	Sireniki
5644	09 - 07-20-88	Lateral leister tine	Walrus tusk	11.9 x 1.1	Sig. damage	AM	Kivak
5648	09 - 07-20-88	Lateral leister tine	Bone	23.8 x 2.1	Sig. damage	AM	Kivak
6327	49 - 08-22-97	Lateral leister tine	Bone	22.8 x 2.0	Insig. damage	AM	Arakamchechen
1686	19 - 10-13-89	Lateral leister tine (fragment)	Walrus tusk	15.6 x 1.9	Sig. damage	AM	Enmelen
4832	54 - 12-13-94	Barb of a compound salmon leister	Walrus tusk	6.0 x 1.6	Insig. damage	AM	Providen. Dist.
92	01 - 05-15-85	Barb of a compound salmon leister	Walrus tusk	8.0 x 1.7	Sig. damage	AM	Sireniki
99	01 - 05-15-85	Barb of a compound salmon leister	Walrus tusk	8.0 x 2.0	Complete	AM	Sireniki
100	01 - 05-15-85	Barb of a compound salmon leister	Walrus tusk	8.6 x 1.5	Insig. damage	AM	Sireniki
102	01 - 05-15-85	Barb of a compound salmon leister	Walrus tusk	7.5 x 2.2	Sig. damage	AM	Sireniki
3080	36 - 09-25-93	Barb of a compound salmon leister	Walrus tusk	4.3 x 0.8	Insig. damage	AM	Sireniki
3277	39 - 10-26-93	Barb of a compound salmon leister	Walrus tusk	7.9 x 2.3	Insig. damage	AM	Sireniki
4779	43 - 09-10-94	Barb of a compound salmon leister	Copper	4.65 x 1.05	Complete	EP	Avan
6025	71 - 09-30-96	Sinker	Walrus tusk	13.8 x 4.0	Sig. damage	AM	Vankarem
6404	89 - 12-22-97	Fishnet sinker	Walrus tooth	6.5 x 2.3	Complete	AM	Sireniki
2748	02m/003-02-91	Fishnet sinker	Stone	9.52 x 7.2	Complete	AM	Kivak
4501	09 - 07-20-88	Dip net sinker	Stone	9.95 x 6.5	Complete	AM	Kivak
2677	01 - 01-02-90	Dip net sinker	Bone	13.1 x 3.8	Sig. damage	AM	Avan
3248	39 - 10-26-93	Fishnet sinker	Walrus tusk	7.0 x 4.1	Insig. damage	AM	Sireniki
3250	39 - 10-26-93	Fishnet sinker	Walrus tusk	15.2 x 3.3	Insig. damage	AM	Sireniki
3261	39 - 10-26-93	Fishnet sinker	Walrus tusk	17.6 x 4.5	Insig. damage	AM	Sireniki
4257	07 - 07-20-85	Fishnet sinker	Bone	19.4 x 3.6	Sig. damage	AM	Arakamchechen
4309	02 - 05-25-85	Fishnet sinker	Walrus tusk	13.7 x 2.6	Sig. damage	AM	Enmelen
4417	07 - 07-20-85	Fishnet sinker	Stone	15.9 x 9.0	Complete	AM	Arakamchechen
5647	09 - 07-20-85	Fishnet sinker	Walrus tusk	15.0 x 3.2	Insig. damage	AM	Kivak
6261	37 - 07-14-97	Fishnet sinker	Bone	16.0 x 6.5	Complete	AM	Kivak
6289	37 - 07-14-97	Fishnet sinker	Bone	12.5 x 7.8	Sig. damage	EP	Kivak
6374	64 - 09-03-97	Fishnet sinker	Walrus tusk	12.1 x 6.1	Insig. damage	AM	Arakamchechen
6393	81 - 11-20-97	Fishnet sinker	Bone	13.5 x 4.5	Insig. damage	EP	Rudder
6407	89 - 12-22-97	Fishnet sinker	Walrus tusk	13.6 x 3.4	Sig. damage	AM	Sireniki
6416	94 - 12-22-97	Fishnet sinker	Walrus tusk	9.1 x 5.9	Insig. damage	AM	Arakamchechen
7037	59/1 - 11-10-98	Fishnet sinker	Walrus bone	21.1 x 4.7	Insig. damage	EP	Rudder
3396	20 - 10-09-90	Fishnet sinker	Walrus tusk	8.0 x 6.0	Insig. damage	AM	Providen. Dist.

Fishing equipment (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
5365	54 - 10-11-95	Dip net sinker	Granite	11.0 x 7.3	Complete	AM Avan
124	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	13.0 x 2.5	Insig. damage	AM Sireniki
125	01 - 05-15-85	Sinker for fishing rod	tusk	8.5 x 2.5	Insig. damage	AM Sireniki
126	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	6.0 x 1.8	Complete	AM Sireniki
127	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	5.0 x 3.0	Insig. damage	AM Sireniki
128	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	7.0 x 2.0	Complete	AM Sireniki
129	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	8.0 x 1.5	Complete	AM Sireniki
141	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	4.5 x 2.5	Complete	AM Sireniki
142	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	8.1 x 3.2	Insig. damage	AM Sireniki
143	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	12.1 x 3.2	Insig. damage	AM Sireniki
145	01 - 05-15-85	Sinker for fishing rod	Bone	9.0 x 2.5	Insig. damage	AM Sireniki
146	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	9.6 x 2.2	Insig. damage	AM Sireniki
147	01 - 05-15-85	Sinker for fishing rod	Bone	6.5 x 1.5	Complete	AM Sireniki
148	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	8.9 x 2.7	Insig. damage	AM Sireniki
2638	02m/003-02-91	Sinker for fishing rod	Walrus tusk	9.5 x 3.6	Insig. damage	AM Kivak
3144	37 - 10-12-93	Sinker for fishing rod	Walrus tusk	13.7 x 2.7	Complete	AM Sireniki
3237	39 - 10-26-93	Sinker for fishing rod	Bone	5.0 x 2.1	Insig. damage	AM Sireniki
3069	35 - 09-24-93	Sinker for fishing rod	Walrus tusk	10.5 x 2.9	Complete	AM Sireniki
3109	37 - 10-12-93	Sinker for fishing rod	Walrus tusk	6.9 x 1.55	Insig. damage	AM Sireniki
3128	37 - 10-12-93	Sinker for fishing rod	Walrus tusk	6.9 x 1.4	Insig. damage	AM Sireniki
3130	37 - 10-12-93	Sinker for fishing rod	Bone	9.1 x 1.5	Insig. damage	AM Sireniki
3155	37 - 10-12-93	Sinker for fishing rod	Walrus tusk	8.0 x 2.45	Insig. damage	AM Sireniki
3156	37 - 10-12-93	Sinker for fishing rod	Bone	5.7 x 1.9	Insig. damage	AM Sireniki
3187	37 - 10-12-93	Sinker for fishing rod	Walrus tusk	8.3 x 2.0	Insig. damage	AM Sireniki
3242	39 - 10-26-93	Sinker for fishing rod	Walrus tusk	9.2 x 1.7	Insig. damage	AM Sireniki
3285	39 - 10-26-93	Sinker for fishing rod	Deer antler	10.8 x 1.9	Insig. damage	AM Sireniki
3289	39 - 10-26-93	Sinker for fishing rod	Walrus tusk	9.5 x 1.9	Insig. damage	AM Sireniki
3297	39 - 10-26-93	Sinker for fishing rod	Walrus tusk	6.4 x 2.4	Insig. damage	AM Sireniki
3332	39 - 10-26-93	Sinker for fishing rod	Walrus tusk	5.8 x 2.1	Insig. damage	AM Sireniki
3347	39 - 10-26-93	Sinker for fishing rod	Walrus tusk	8.3 x 1.7	Insig. damage	AM Sireniki
3731	32 - 05-08-91	Sinker for fishing rod	Walrus tusk	8.0 x 1.7	Insig. damage	AM Sireniki
4111	48 - 12-07-93	Sinker for fishing rod	Walrus tusk	8.8 x 2.0 x 1.0	Insig. damage	AM Providenskiy Dist.
4221	06 - 07-20-85	Sinker for fishing rod	Walrus tusk	9.6 x 2.0	Complete	AM Kivak
4234	06 - 07-20-85	Sinker for fishing rod	Walrus tusk	8.0 x 1.8	Insig. damage	AM Kivak

Fishing equipment (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4385	01 - 05-15-85	Sinker for fishing rod	Bone	8.2 x 1.35	Complete	AM Sireniki
4395	01 - 05-15-85	Sinker for fishing rod	Walrus tusk	4.31 x 1.25	Insig. damage	AM Sireniki
4445	06 - 07-20-85	Sinker for fishing rod	Walrus tusk	5.2 x 2.0	Insig. damage	AM Kivak
4510	09 - 07-20-88	Sinker for fishing rod	Walrus tusk	7.8 x 2.0	Sig. damage	AM Kivak
4783	43 - 09-10-94	Sinker for fishing rod	Walrus tusk	7.1 x 2.0	damage	AM Avan
5651	09 - 07-20-88	Sinker for fishing rod	Walrus tusk	7.8 x 2.4	Complete	AM Kivak
6131	08 - 02-28-97	Sinker for fishing rod	Walrus tooth	6.1 x 1.9	Insig. damage	AM Arakamchechen
6314	44 - 08-03-97	Sinker for fishing rod	Walrus tusk	12.2 x 2.0	Sig. damage	AM Kivak
6368	63 - 10-03-97	Sinker for fishing rod	Walrus tusk	14.05 x 3.6	Insig. damage	AM Sireniki
6369	63 - 10-03-97	Sinker for fishing rod	Walrus tusk	9.7 x 2.7	Complete	AM Sireniki
6453	02 - 01-27-98	Sinker for fishing rod	Walrus tusk	10.3 x 2.8	Insig. damage	AM Yanrakynnot
6639	13 - 03-20-98	Sinker for fishing rod	Walrus tusk	5.5 x 1.7	Sig. damage	AM Emmelen
6640	13 - 03-20-98	Sinker for fishing rod	Walrus tusk	5.2 x 1.7	Sig. damage	AM Emmelen
6641	13 - 03-20-98	Sinker for fishing rod	Walrus tusk	9.9 x 3.6	Sig. damage	AM Emmelen
6946	38 - 09-01-98	Sinker for fishing rod	Walrus tusk	11.2 x 2.15	Complete	AM Sireniki
6999	51 - 09-16-98	Sinker for fishing rod	Walrus tusk	10.9 x 1.7	Complete	AM Nuvuk
7000	51 - 09-16-98	Sinker for fishing rod	Walrus tusk	8.7 x 2.2	Complete	AM Nuvuk
7001	51 - 09-16-98	Sinker for fishing rod	Walrus tusk	8.7 x 2.2	Complete	AM Nuvuk
3136	37 - 10-12-93	Sinker for fishing rod (blank)	Walrus tusk	6.0 x 1.45	Insig. damage	AM Sireniki
3282	39 - 10-26-93	Sinker for fishing rod (blank)	Walrus tusk	9.8 x 2.2	Insig. damage	AM Sireniki
3258	39 - 10-26-93	Float fastener	Wood	7.0 x 1.4	Insig. damage	AM Sireniki
56	01 - 05-15-85	Leister tine	Walrus tusk	13.0 x 1.0	Insig. damage	AM Sireniki
57	01 - 05-15-85	Leister tine	Walrus tusk	13.5 x 1.0	Insig. damage	AM Sireniki
58	01 - 05-15-85	Leister tine	Walrus tusk	12.5 x 1.5	Insig. damage	AM Sireniki
60	01 - 05-15-85	Leister tine	Walrus tusk	7.0 x 1.0	Insig. damage	AM Sireniki
78	01 - 05-15-85	Leister tine	Walrus tusk	6.0 x 1.0	Insig. damage	AM Sireniki
79	01 - 05-15-85	Leister tine	Walrus tusk	9.0 x 1.5	Insig. damage	AM Sireniki
80	01 - 05-15-85	Leister tine	Walrus tusk	8.0 x 0.5	Insig. damage	AM Sireniki
81	01 - 05-15-85	Leister tine	Bone	19.0 x 0.5	Insig. damage	AM Sireniki
83	01 - 05-15-85	Leister tine	Bone	16.0 x 0.5	Insig. damage	AM Sireniki
3108	37 - 10-12-93	Leister tine	Bone	8.3 x 1.0	Insig. damage	AM Sireniki
3466	01 - 01-02-90	Fishing leister tine	Deer antler	41.6 x 2.6	Sig. damage	AM Kivak
6403	88 - 12-18-97	Fishing leister tine	Bone	16.55 x 0.6	Complete	AM Sireniki
6405	89 - 12-22-97	Fishing leister tine	Tusk	15.3 x 0.7	Complete	AM Sireniki

Fishing equipment (cont.)						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
33	01 - 05-15-85	Needle for repairing nets	Walrus tusk	11.7 x 0.7	Insig. damage	AM Sireniki
110 111	01 - 05-15-85	Needle for repairing nets	Walrus tusk	13.7 x 2.6	Insig. damage	AM Sireniki
4265	01 - 05-15-85	Needle for repairing nets	Bone	16.7 x 2.5	Complete	AM Sireniki
5057	07 - 07-20-85	Needle for repairing nets	Bone	15.55 x 1.8	Insig. damage	AM Arakamchechen
6072	52 - 11-29-94	Needle for repairing nets	Bone	14.9 x 1.7	Insig. damage	AM Kivak
7002	86 - 11-29-96	Needle for repairing nets	Bone	17.1 x 1.35	Complete	AM Sireniki
4318	51 - 09-16-98	Needle for repairing nets	Bone	7.8 x 1.1	Complete	AM Nuvuk
4447	02 - 05-25-85	Needle for repairing nets (fragment)	Walrus tusk	9.4 x 2.2	Complete	AM Emmelen
4828	06 - 07-20-85	Needle for repairing nets (fragment)	Bone	5.95 x 1.1	Insig. damage	AM Kivak
5953	34 - 09-11-90	Needle-shuttle for weaving nets	Baleen	17.5 x 3.2	Complete	EM Plover
4760	63 - 08-26-96	Needle-shuttle for weaving nets	Wood	28.3 x 6.2	Sig. damage	AM Plover
2836	39 - 98-30-94	Foreshaft of toggling point of a fish harpoon	Walrus tusk	6.05 x 0.65	Complete	AM Emmelen
4369	02m/003-02-91	Fishhook	Wd., bal., bone	3.6	Complete	AM Kivak
6417	01 - 01-02-90	Fishhook	Tusk, brass	4.2 x 0.9	Insig. damage	EP Rudder
6418	94 - 12-22-97	Fishhook	Tusk, metal	6.1 x 0.8	Insig. damage	EP Arakamchechen
7027	94 - 12-22-97	Fishhook	Walrus tusk	5.1 x 2.0	Complete	AM Arakamchechen
3316	58 - 10-02-98	Fishhook	Walrus tusk	24.6 x 3.4	Insig. damage	AM Kivak
4765	39 - 10-26-93	Non-toggling point of a fish harpoon	Walrus tusk	6.4 x 1.0	Insig. damage	AM Sireniki
6071	39 - 08-30-94	Non-toggling point of a fish harpoon	Walrus tusk	5.1 x 0.95	Complete	AM Emmelen
6254	86 - 11-29-96	Non-toggling point of a fish harpoon	Walrus tusk	6.6 x 1.1	Complete	AM Sireniki
94	35 - 07-10-97	Non-toggling point of a fish harpoon	Walrus tusk	7.15 x 1.1	Insig. damage	AM Singak
3259	01 - 05-15-85	Non-toggling point of a fish harpoon	Walrus tusk	5.9 x 1.3	Insig. damage	AM Sireniki
3338	39 - 10-26-93	Non-toggling point of a fish harpoon	Walrus tusk	6.05 x 1.25	Insig. damage	AM Sireniki
3464	39 - 10-26-93	Non-toggling point of a fish harpoon	Walrus tusk	5.25 x 1.4	Insig. damage	AM Sireniki
6290	01 - 01-02-90	Non-toggling point of a fish harpoon	Walrus tusk	5.1 x 1.4	Sig. damage	AM Avan
7038	37 - 07-14-97	Fishnet float	Cork	13.3 x 8.1	Sig. damage	EP Kivak
3325	59/1 - 11-10-98	Fishnet float	Cork	7.4 x 4.4	Insig. damage	EP Rudder
3326	39 - 10-26-93	Float	Wood	2.2 x 1.5	Insig. damage	AM Sireniki
3327	39 - 10-26-93	Float	Wood	2.2 x 1.5	Insig. damage	AM Sireniki
6195/1	39 - 10-26-93	Float	Wood	2.2 x 1.5	Insig. damage	AM Sireniki
6195/2	28 - 06-13-97	Device for weaving nets	Bone	19.3 x 6.4	Complete	EP Kivak
3463	28 - 06-13-97	Device for weaving nets	Bone	19.4 x 6.4	Complete	EP Kivak
2636	01 - 01-02-90	Head of fish harpoon	Walrus tusk	5.4 x 1.1	Sig. damage	AM Kivak
	26 - 12-10-90	Net (fragment)	Baleen	38.0 x 23.0	Sig. damage	AM Lavrentiya

Fishing equipment (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
2825	04 - 06-15-89	Net (fragment)	Baleen	120.0 x 20.0	Sig. damage	AM Avan
5838	50 - 07-23-96	Net for a dip net ("k.alyu") (fragment)	Baleen	10.5 x 6.5	Sig. damage	AM Avan
144	01 - 05-15-85	Compound sinker for a fishing rod	Walrus tusk	12.2 x 2.6	Insig. damage	AM Sireniki
2668	02m/o03-02-91	Compound sinker for a fishing rod	Walrus tusk	12.95 x 2.5	Sig. damage	AM Enmelen
4256	07 - 07-20-85	Compound sinker for a fishing rod	Whale bone	14.15 x 4.2	Sig. damage	AM Aramakchechen
6637	12 - 03-20-98	Compound sinker for a fishing rod	Walrus tusk	12.7 x 2.8	Sig. damage	AM Enmelen
7036	59 - 11-04-98	Compound sinker for a fishing rod	Walrus tusk	12.1 x 2.7	Sig. damage	EP Chechen/Tasik
6179	22 - 04-16-97	Compound fishhook	Tsk., met., bal.	8.3 x 2.3	Complete	EP Arakamchechen
3303	39 - 10-26-93	Shank of a compound fishhook (fragment)	Walrus tusk	6.4 x 1.0	Insig. damage	AM Sireniki
3113	37 - 10-12-93	Shank of a compound fishhook (blank)	Bone	6.5 x 0.9	Insig. damage	AM Sireniki
160	01 - 05-15-85	Shank of a compound fishhook	Bone	13.2 x 1.35	Complete	AM Sireniki
3273	39 - 10-26-93	Shank of a compound fishhook	Walrus tusk	9.95 x 1.5	Sig. damage	AM Sireniki
3302	39 - 10-26-93	Shank of a compound fishhook	Walrus tusk	6.2 x 0.7	Complete	AM Sireniki
3472	01 - 01-02-90	Shank of a compound fishhook	Bone	8.2 x 0.95	Sig. damage	AM Avan
4076	43 - 12-17-93	Shank of a compound fishhook	Walrus tusk	13.9 x 1.6	Complete	AM Enmelen
4117	48 - 12-07-93	Shank of a compound fishhook	Walrus tusk	7.7 x 1.0	Complete	AM Providenskiy Dist.
7026	57 - 10-24-98	Fishing rod	Walrus tusk	120	Insig. damage	AM Unazik
55	01 - 05-15-85	Central tine of a fish leister	Bone	20.8 x 1.5	Insig. damage	AM Sireniki
59	01 - 05-15-85	Central tine of a fish leister	Walrus tusk	12.6 x 1.1	Insig. damage	AM Sireniki
61	01 - 05-15-85	Central tine of a fish leister	Walrus tusk	15.5 x 1.7	Complete	AM Sireniki
3120	37 - 10-12-93	Central tine of a fish leister	Walrus tusk	5.45 x 1.0	Insig. damage	AM Sireniki
3181	37 - 10-12-93	Central tine of a fish leister	Bone	7.5 x 1.2	Insig. damage	AM Sireniki
3269	39 - 10-26-93	Central tine of a fish leister	Bone	15.45 x 1.3	Insig. damage	AM Sireniki
3737	32 - 05-08-91	Central tine of a fish leister	Bone	8.4 x 0.75	Insig. damage	AM Sireniki
4300	02 - 05-25-85	Central tine of a fish leister	Walrus tusk	12.3 x 0.8	Sig. damage	AM Enmelen
4322	02 - 05-25-85	Central tine of a fish leister	Walrus tusk	23.5 x 2.7	Complete	AM Enmelen
5652	09 - 07-20-88	Central tine of a fish leister	Bone	22.0 x 2.1	Complete	AM Kivak
5653	09 - 07-20-88	Central tine of a fish leister	Bone	18.2 x 1.7	Complete	AM Kivak
6068	86 - 11-29-96	Central tine of a fish leister	Bone	12.3 x 1.5	Complete	AM Sireniki
6070	86 - 11-29-96	Central tine of a fish leister	Bone	20.8 x 1.35	Insig. damage	AM Sireniki
6945	38 - 09-01-98	Central tine of a fish leister	Walrus tusk	8.3 x 0.95	Complete	AM Sireniki
6954	40 - 09-02-98	Central tine of a fish leister	Walrus tusk	16.8 x 2.5	Sig. damage	AM Yryrak
84	01 - 05-15-85	Central tine of a fish leister	Bone	7.1 x 1.2	Insig. damage	AM Sireniki
6023	71 - 09-30-96	Central tine of a fish leister	Walrus tusk	15.0 x 1.4	Insig. damage	AM Vankarem
4119	48 - 12-07-93	Central tine of a fish leister (fragment)	Walrus tusk	8.1 x 0.7	Complete	AM Providenskiy Dist.

## Tools for working stone, bone, and wood

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
4514	09 - 07-20-88	Borer (fragment)	Metal	14.3 x 1.0	Sig. damage	EP	Kivak
4787	43 - 09-10-94	Nail	Copper	10.4 x 1.0	Complete	EP	Avan
2649	02m/o03-02-91	Chisel-like tool	Stone	5.3 x 1.5	Complete	AM	Enmelen
4297	02 - 05-25-85	Wedge	Walrus tusk	15.8 x 2.1	Sig. damage	AM	Enmelen
4308	02 - 05-25-85	Wedge	Walrus tusk	14.5 x 4.1	Insig. damage	AM	Enmelen
4310	02 - 05-25-85	Wedge	Walrus tusk	11.8 x 1.9	Complete	AM	Enmelen
4372	02 - 05-25-85	Wedge	Walrus tusk	6.3 x 2.4	Complete	AM	Enmelen
4453	06 - 07-20-85	Wedge	Walrus tusk	19.7 x 7.5	Sig. damage	AM	Kivak
4461	09 - 07-20-88	Wedge	Walrus tusk	8.6 x 1.4	Complete	AM	Kivak
4516	09 - 07-20-88	Wedge	Walrus tusk	8.7 x 2.0	Complete	AM	Kivak
5277	40 - 07-27-95	Wedge	Walrus tusk	18.8 x 5.0	Insig. damage	AM	Kivak
5304	47 - 08-25-95	Wedge	Walrus tusk	15.0 x 3.7	Sig. damage	AM	Ytryak
6127	07 - 02-27-97	Wedge	Bone	31.0 x 4.5	Complete	AM	Arakamchechen
6276	37 - 07-14-97	Wedge	Walrus tusk	16.9 x 5.1	Sig. damage	EP	Kivak
6422	94 - 12-22-97	Wedge	Walrus tusk	11.6 x 2.7	Insig. damage	AM	Arakamchechen
6629	09 - 02-19-98	Wedge	Walrus tusk	26.2 x 6.0	Sig. damage	AM	Yanrakynnot
6646	13 - 03-20-98	Wedge	Deer antler	12.9 x 2.7	Complete	AM	Enmelen
5889	55 - 08-15-96	Axe blade	Metal	17.5 x 11.9	Sig. damage	EP	Arakamchechen
2728/2	02 - 01-30-93	Bow for making fire	Deer antler	52.0 x 3.5	Insig. damage	EP	Nunligran
16	01 - 05-15-85	Mallet	Stone, wd.	27.0 x 12.0	Complete	AM	Sireniki
6132	08 - 02-28-97	Mallet	Bone	8.8 x 4.3	Complete	AM	Arakamchechen
5454	63 - 10-19-95	Mallet (fragment)	Bone	14.0 x 4.0	Insig. damage	AM	Sireniki
6073	86 - 11-29-96	Support	Bone	20.0 x 2.9	Insig. damage	AM	Sireniki
6074	86 - 11-29-96	Mouth-held support	Bone	7.7 x 2.5	Insig. damage	AM	Sireniki
6630	10 - 02-19-98	Mouth-held support	Walrus tusk	9.3 x 2.8	Insig. damage	AM	Arakamchechen
18	01 - 05-15-85	Hand-held support	Walrus tusk	15.0 x 3.0	Insig. damage	AM	Sireniki
2727	02 - 05-25-85	Hand-held support	Walrus tusk	18.3 x 2.9	Sig. damage	AM	Enmelen
2985	02 - 01-03-92	Hand-held support	Walrus tusk	13.0 x 3.5	Complete	AM	Nunligran
4232	06 - 07-20-85	Hand-held support	Walrus tusk	12.0 x 1.6	Insig. damage	AM	Kivak
4324	02 - 05-25-85	Hand-held support	Walrus tusk	17.8 x 2.3	Sig. damage	AM	Enmelen
6174	22 - 04-16-97	Hand-held support	Walrus tusk	25.6 x 2.8	Complete	AM	Arakamchechen
6638	12 - 03-20-98	Hand-held support	Walrus tusk	10.3 x 5.1	Complete	AM	Erguvaam
7127	15 - 05-20-99	Hand-held support	Walrus tusk	17.5 x 2.7	Insig. damage	AM	Sireniki
7128	15 - 05-20-99	Hand-held support	Walrus tusk	18.7 x 1.8	Sig. damage	AM	Sireniki
4109	48 - 12-07-93	Socket for a stone tool	Deer antler	4.9 x 2.5	Complete	AM	Providenskiy Dist.

Tools for working stone, bone, and wood (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6862	22 - 04-10-98	Socket for a stone tool	Deer antler	6.0 x 4.3	Complete	Nunligran
4323	02 - 05-25-85	Socket for a stone tool (fragment)	Deer antler	10.6 x 3.0	Sig. damage	Emmelen
5451	63 - 10-19-95	Burin socket	Bone	9.0 x 6.3	Sig. damage	Sireniki
5980	67 - 09-06-96	Burin socket	Bone	4.1 x 3.3	Insig. damage	Ratmanova
5452	63 - 10-19-95	Burin socket with handle	Bone, wood	22.5 x 9.5	Sig. damage	Sireniki
1683	19 - 10-13-89	Adze socket	Deer antler	13.1 x 3.5	Complete	Emmelen
2648	02m/003-02-91	Adze socket	Deer antler	11.4 x 2.3	Insig. damage	Avan
4288	02 - 05-25-85	Adze socket	Bone	11.4 x 4.95	Sig. damage	Emmelen
6099	86 - 11-29-96	Adze socket	Deer antler	33.2 x 3.7	Sig. damage	Sireniki
5978	67 - 09-06-96	Adze socket	Bone	15.3 x 4.3	Sig. damage	Ratmanova
6015	71 - 09-30-96	Adze socket	Bone	8.2 x 5.3	Insig. damage	Vankarem
7112	06 - 03-11-99	Adze socket	Bone	8.4 x 4.3	Insig. damage	Plover
4051	25 - 06-16-93	Fire board (gyr-gyr)	Wood	36.0 x 8.28	Complete	Emmelen
5811	43 - 06-27-96	Fire board (gyr-gyr)	Wood	45.6 x 8.2	Sig. damage	Rudder
6358	60 - 10-03-97	Fire board (gyr-gyr)	Wood	59.5 x 10.4	Complete	Yanrakynnot
6359	60 - 10-03-97	Fire board (gyr-gyr)	Wood	43.0 x 9.8	Split	Yanrakynnot
2728/1	02 - 01-30-93	Fire board (gyr-gyr)	Wood	48.3 x 10.4	Insig. damage	Nunligran
7105	06 - 03-11-99	Fire board (gyr-gyr) (fragment)	Wood	13.8 x 6.3	Sig. damage	Plover
6081	86 - 11-29-96	Burin	Slate	11.9 x 1.9	Complete	Sireniki
6083	86 - 11-29-96	Pressure retoucher	Bone	8.0 x 2.1	Insig. damage	Sireniki
6100	86 - 11-29-96	Handle of a graving instrument	Walrus tusk	7.5 x 0.7	Insig. damage	Sireniki
2717	02 - 05-25-85	Handle of a pressure retoucher	Walrus tusk	17.1 x 2.4	Complete	Emmelen
2641	06 - 07-20-85	Burin handle	Bone	13.1 x 3.2	Sig. damage	Kivak
2718	mo 03-02-91	Burin handle	Deer antler	9.2 x 2.7	Complete	Sireniki
3271	39 - 10-26-93	Burin handle	Bone	15.0 x 3.3	Insig. damage	Sireniki
4303	02 - 05-25-85	Burin handle	Deer antler	13.3 x 1.9	Sig. damage	Emmelen
6082	86 - 11-29-96	Burin handle	Deer antler	7.4 x 2.2	Insig. damage	Sireniki
6648	13 - 03-20-98	Burin handle	Deer antler	9.7 x 1.5	Insig. damage	Emmelen
2647	mo 03-02-91	Burin/knife handle	Deer antler	15.6 x 2.2	Insig. damage	Sireniki
3193	37 - 10-12-93	Burin/knife handle	Wood	10.5 x 2.5	Insig. damage	Sireniki
3239	39 - 10-26-93	Burin/knife handle	Deer antler	9.0 x 2.2	Insig. damage	Sireniki
4444	06 - 07-20-85	Compound handle (fragment)	Walrus tusk	12.4 x 1.6	Complete	Kivak
5078/1	65 - 12-30-94	Compound handle of a graving instrument	Tusk, metal	7.0 x 0.9	Complete	Kivak
5078/2	65 - 12-30-94	Compound handle of a graving instrument	Walrus tusk	8.0 x 1.3	Complete	Kivak

Tools for working stone, bone, and wood (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3254	39 - 10-26-93	Compound burin handle	Walrus tusk	8.5 x 1.1	Insig. damage	AM Sireniki
4313	02 - 05-25-85	Compound burin handle	Walrus tusk	8.3 x 1.1	Complete	AM Emmelen
4376	02 - 05-25-85	Compound burin handle	Walrus tusk	9.1 x 0.9	Complete	AM Emmelen
4383	01 - 05-15-85	Compound burin handle	Walrus tusk	9.7 x 1.0	Insig. damage	AM Sireniki
7003	51 - 09-16-98	Compound burin handle	Walrus tusk	10.0 x 1.5	Complete	AM Nuvuk
4305	02 - 05-25-85	Compound burin/knife handle	Walrus tusk	8.2 x 1.6	Insig. damage	AM Emmelen
3284	39 - 10-26-93	Rod for a fire drill	Wood	11.0 x 1.6	Insig. damage	AM Sireniki
3465	01 - 01-02-90	Rod for a fire drill	Deer antler	31.2 x 2.2	Complete	AM Kivak
4056	25 - 06-16-93	Rod for a fire drill	Deer antler	41.8 x 2.7	Complete	EP Emmelen
4226	06 - 07-20-85	Rod for a fire drill	Wood	9.0 x 1.5	Insig. damage	AM Kivak
4227	06 - 07-20-85	Rod for a fire drill	Wood	7.0 x 1.2	Sig. damage	AM Kivak
5818	47 - 07-15-96	Rod for a fire drill	Wood	14.2 x 1.3	Insig. damage	AM Kivak
6038	75 - 10-23-96	Rod for a fire drill	Deer antler	27.7 x 3.2	Sig. damage	EP Rudder
6192	27 - 06-10-97	Rod for a fire drill	Wood	7.7 x 1.5	Insig. damage	AM Avan
6272	37 - 07-14-97	Rod for a fire drill	Wood	20.7 x 1.8	Insig. damage	AM Kivak
6360	59 - 09-26-97	Rod for a fire drill	Bone	40.0 x 2.0	Complete	EP Yanrakynnot
6397	82 - 11-20-97	Rod for a fire drill	Wood	20.5 x 1.8	Complete	EP Yanrakynnot
26/1	01 - 05-15-85	Rod for a fire drill	Wood	7.5 x 1.7	Insig. damage	AM Sireniki
26/2	01 - 05-15-85	Rod for a fire drill	Wood	8.2 x 1.5	Insig. damage	AM Sireniki
2728/3	02 - 01-30-93	Rod for a fire drill	Wood	52.0 x 3.5	Insig. damage	EP Numligran
2721	02m/003-02-91	Adze	Stone	4.6 x 3.6	Complete	AM Kivak
4239	06 - 07-20-85	Adze	Walrus tusk	8.4 x 2.5	Insig. damage	AM Kivak
4397	01 - 05-15-85	Adze	Stone	6.9 x 6.5	Complete	AM Sireniki
4470	09 - 07-20-88	Adze	Stone	5.8 x 4.3	Complete	AM Kivak
4471	09 - 07-20-88	Adze	Stone	6.8 x 4.2	Sig. damage	AM Kivak
4473	09 - 07-20-88	Adze	Stone	6.7 x 4.1	Sig. damage	AM Kivak
4496	09 - 07-20-88	Adze	Stone	6.0 x 4.6	Complete	AM Kivak
4497	09 - 07-20-88	Adze	Stone	7.5 x 6.0	Insig. damage	AM Kivak
4515	09 - 07-20-88	Adze	Walrus tusk	10.5 x 5.0	Sig. damage	AM Kivak
4529	09 - 07-20-88	Adze	Stone	4.4 x 3.3	Complete	AM Kivak
4541	09 - 07-20-88	Adze	Stone	6.3 x 5.0	Insig. damage	AM Kivak
6085	86 - 11-29-96	Adze	Stone	8.7 x 5.3	Insig. damage	AM Sireniki
4398	01 - 05-15-85	Adze	Stone	7.0 x 4.5	Complete	AM Sireniki

## Tools for butchering carcasses and working skins

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
67	01 - 05-15-85	Woman's knife blade	Stone	8.5 x 4.5	Insig. damage	AM	Sireniki
68	01 - 05-15-85	Woman's knife blade	Stone	6.0 x 4.0	Insig. damage	AM	Sireniki
4208	06 - 07-20-85	Woman's knife blade	Stone	7.3 x 6.2	Complete	AM	Kivak
4336	02 - 05-25-85	Woman's knife blade	Stone	9.7 x 4.5	Complete	AM	Enmelen
4344	02 - 05-25-85	Woman's knife blade	Stone	14.8 x 5.5	Sig. damage	AM	Enmelen
4498	09 - 07-20-88	Woman's knife blade	Stone	7.9 x 7.0	Complete	AM	Kivak
4499	09 - 07-20-88	Woman's knife blade	Stone	12.0 x 5.4	Insig. damage	AM	Kivak
4500	09 - 07-20-88	Woman's knife blade	Stone	8.5 x 4.4	Insig. damage	AM	Kivak
4533	09 - 07-20-88	Woman's knife blade	Stone	8.0 x 5.0	Complete	AM	Kivak
5829	50 - 07-23-96	Woman's knife blade	Stone	7.5 x 5.9	Insig. damage	AM	Avan
6077	86 - 11-29-96	Woman's knife blade	Stone	10.4 x 6.2	Complete	AM	Sireniki
6632	10 - 02-19-98	Woman's knife blade	Stone	12.9 x 4.9	Complete	AM	Arakamchechen
6933	10 - 02-19-98	Woman's knife blade	Stone	7.3 x 5.9	Complete	AM	Arakamchechen
4219/2	06 - 07-20-85	Woman's knife blade	Stone	7.1 x 1.4	Insig. damage	AM	Kivak
6040	76 - 10-24-96	Woman's knife blade	Stone	7.4 x 5.5	Sig. damage	AM	Sireniki
4519	09 - 07-20-88	Woman's knife blade (fragment)	Stone	9.5 x 3.5	Sig. damage	AM	Kivak
4534	09 - 07-20-88	Woman's knife blade (fragment)	Stone	8.0 x 4.9	Complete	AM	Kivak
4535	09 - 07-20-88	Woman's knife blade (fragment)	Stone	7.0 x 5.0	Complete	AM	Kivak
4537	09 - 07-20-88	Woman's knife blade (fragment)	Stone	9.5 x 3.5	Complete	AM	Kivak
4321	02 - 05-25-85	Woman's knife blade (fragment)	Stone	7.6 x 2.7	Complete	AM	Enmelen
4327	02 - 05-25-85	Woman's knife blade (fragment)	Stone	9.5 x 4.6	Complete	AM	Enmelen
4329	02 - 05-25-85	Woman's knife blade (fragment)	Stone	9.4 x 7.4	Complete	AM	Enmelen
4341	02 - 05-25-85	Woman's knife blade (fragment)	Stone	3.6 x 7.4	Complete	AM	Enmelen
4400	01 - 05-15-85	Woman's knife blade (fragment)	Stone	7.4 x 5.2	Complete	AM	Sireniki
4403	01 - 05-15-85	Woman's knife blade (fragment)	Stone	11.0 x 3.6	Complete	AM	Sireniki
6976	49 - 09-09-98	Woman's knife blade (fragment)	Stone	5.4 x 4.6	Complete	AM	Avan
6977	49 - 09-09-98	Woman's knife blade (fragment)	Stone	6.3 x 4.9	Complete	AM	Avan
69	01 - 05-15-85	Knife blade	Stone	8.0 x 3.5	Insig. damage	AM	Sireniki
70	01 - 05-15-85	Knife blade	Stone	5.5 x 3.0	Insig. damage	AM	Sireniki
71	01 - 05-15-85	Knife blade	Stone	8.5 x 3.5	Insig. damage	AM	Sireniki
72	01 - 05-15-85	Knife blade	Stone	7.0 x 3.5	Insig. damage	AM	Sireniki
73	01 - 05-15-85	Knife blade	Stone	8.0 x 4.3	Insig. damage	AM	Sireniki
74	01 - 05-15-85	Knife blade	Stone	7.0 x 5.5	Insig. damage	AM	Sireniki
75	01 - 05-15-85	Knife blade	Stone	5.0 x 3.0	Insig. damage	AM	Sireniki
76	01 - 05-15-85	Knife blade	Stone	5.2 x 4.0	Insig. damage	AM	Sireniki
77	01 - 05-15-85	Knife blade	Stone	8.0 x 3.5	Insig. damage	AM	Sireniki

Tools for butchering carcasses and working skins (cont.).							
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
105	01 - 05-15-85	Knife blade	Stone	11.5 x 4.0	Insig. damage	AM	Sireniki
2707	01 - 01-02-90	Knife blade	Walrus tusk	12.1 x 1.9	Insig. damage	AM	Avan
3295	39 - 10-26-93	Knife blade	Metal	23.3 x 3.2	Insig. damage	AM	Sireniki
3310	39 - 10-26-93	Knife blade	Metal	12.2 x 1.9	Insig. damage	AM	Sireniki
3349	39 - 10-26-93	Knife blade	Metal	19.2 x 1.7	Insig. damage	AM	Sireniki
4207	06 - 07-20-85	Knife blade	Stone	8.1 x 4.7	Insig. damage	AM	Kivak
4330	02 - 05-25-85	Knife blade	Stone	11.4 x 5.9	Sig. damage	AM	Enmelen
4333	02 - 05-25-85	Knife blade	Stone	3.7 x 3.1	Complete	AM	Enmelen
4335	02 - 05-25-85	Knife blade	Stone	8.0 x 2.9	Complete	AM	Enmelen
4351	02 - 05-25-85	Knife blade	Stone	7.8 x 4.5	Sig. damage	AM	Enmelen
4354	02 - 05-25-85	Knife blade	Stone	3.7 x 2.4	Complete	AM	Enmelen
4405	01 - 05-15-85	Knife blade	Stone	10.0 x 4.3	Insig. damage	AM	Sireniki
4475	09 - 07-20-88	Knife blade	Stone	6.9 x 6.5	Complete	AM	Kivak
4491	09 - 07-20-88	Knife blade	Stone	7.6 x 5.5	Complete	AM	Kivak
4776	43 - 09-10-94	Knife blade	Stone	8.5 x 3.7	Insig. damage	AM	Avan/Kivak
5441	62 - 10-19-95	Knife blade	Stone	7.0 x 3.9	Insig. damage	AM	Sireniki
5443	62 - 10-19-95	Knife blade	Stone	7.6 x 6.7	Sig. damage	AM	Sireniki
6193	27 - 06-10-97	Knife blade	Stone	10.2 x 4.4	Complete	AM	Avan
7107	06 - 07-20-85	Knife blade	Stone	9.1 x 6.8	Insig. damage	AM	Plover
7121	09 - 03-18-99	Knife blade	Stone	6.2 x 4.9	Complete	AM	Kivak
4399	01 - 05-15-85	Knife blade	Stone	7.4 x 5.2	Complete	AM	Sireniki
5055	52 - 11-29-94	Knife blade	Stone	7.9 x 3.6	Insig. damage	AM	Kivak
4477	09 - 07-20-88	Knife blade (fragment)	Stone	6.3 x 1.9	Complete	AM	Kivak
4494	09 - 07-20-88	Knife blade (fragment)	Stone	7.1 x 4.5	Insig. damage	AM	Kivak
4536	09 - 07-20-88	Knife blade (fragment)	Stone	7.0 x 3.5	Complete	AM	Kivak
4521	09 - 07-20-88	Knife blade (blank)	Stone	9.3 x 3.5	Complete	AM	Kivak
4522	09 - 07-20-88	Knife blade (blank)	Stone	11.5 x 6.5	Complete	AM	Kivak
4525	09 - 07-20-88	Knife blade (blank)	Stone	10.0 x 4.2	Complete	AM	Kivak
4350	02 - 05-25-85	Knife blade (fragment)	Stone	3.4 x 6.3	Complete	AM	Enmelen
4426	07 - 07-20-85	Knife blade (fragment)	Metal	10.8 x 2.8	Sig. damage	EP	Arakamchechen
2682	01 - 01-02-90	Knife blade for butchering whale	Metal	19.0 x 4.0	Sig. damage	EP	Unazik
4474	09 - 07-20-88	Drawing knife blade	Stone	6.1 x 6.2	Insig. damage	AM	Kivak
41	01 - 05-15-85	Spear point	Stone	11.0 x 4.0	Insig. damage	AM	Sireniki
2626	06 - 07-20-85	Knife	Bone	19.8 x 1.8	Insig. damage	AM	Kivak
2675	01 - 01-02-90	Knife	Wood, Metal	25.3 x 2.8	Sig. damage	EP	Avan

Tools for butchering carcasses and working skins (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4078	44 - 12-17-93	Knife	Bone	15.9 x 1.9	Insig. damage	AM Unazik
4465	09 - 07-20-88	Knife	Bone	17.0 x 2.6	Sig. damage	AM Kivak
6274	37 - 07-14-97	Knife	Antler, metal	11.1 x 2.2	Sig. damage Sig. damage	EP Kivak
6275	37 - 07-14-97	Knife	Antler, metal	8.9 x 1.8	damage	EP Kivak
6346	52 - 08-22-97	Knife	Stone	14.0 x 10.5	Insig. damage	EP Kivak
6975	49 - 09-09-98	Knife	Stone	5.1 x 2.1	Complete	AM Avan
7106	06 - 03-11-99	Knife	Stone	6.5 x 2.8	Insig. damage	AM Plover
6342	51 - 08-22-97	Knife	Metal, wood	21.7 x 2.6	Sig. damage	EP Uniyramkyt
2660	06 - 07-20-85	Knife	Wd., st., tsk.	15.5 x 3.5	Sig. damage	AM Kivak
4370	02 - 05-25-85	Knife (fragment)	Walrus bone	15.7 x 3.1	Sig. damage	AM Enmelen
4060	25 - 06-16-93	Knife for butchering whale	Wood, metal	172.3 x 5.7	Insig. damage	EP Enmelen
6	01 - 05-15-85	Woman's knife	Wood, metal	10.0 x 4.0	Insig. damage	AM Sireniki
2781	06 - 07-20-85	Woman's knife	Wood, stone	12.5 x 6.1	Insig. damage	AM Kivak
7124	11 - 03-24-99	Woman's knife	Wood, metal	7.4 x 11.5	Complete	EP Providenskiy Dist.
3341	39 - 10-26-93	Woman's knife	Wood, stone	8.7 x 5.2	Insig. damage	AM Sireniki
3346	39 - 10-26-93	Plate-scraper	Bone	15.2 x 4.5	Insig. damage	AM Sireniki
3149	37 - 10-12-93	Handle of a woman's knife	Wood	11.0 x 1.7	Insig. damage	AM Sireniki
3151	37 - 10-12-93	Handle of a woman's knife	Wood	7.0 x 1.7	Insig. damage	AM Sireniki
2694	02m/003-02-91	Handle of a woman's knife	Wood	17.1 x 4.1	Complete	EP Enmelen
3125	37 - 10-12-93	Handle of a woman's knife	Wood	9.0 x 2.7	Insig. damage	AM Sireniki
3150	37 - 10-12-93	Handle of a woman's knife	Wood	11.7 x 3.0	Insig. damage	AM Sireniki
3166	37 - 10-12-93	Handle of a woman's knife	Wood	23.5 x 3.7	Insig. damage	AM Sireniki
3167	37 - 10-12-93	Handle of a woman's knife	Wood	23.5 x 3.7	Insig. damage	AM Sireniki
3343	39 - 10-26-93	Handle of a woman's knife	Wood	5.5 x 1.8	Insig. damage	AM Sireniki
4503	09 - 07-20-88	Handle of a woman's knife	Wood	9.0 x 1.7	Complete	AM Kivak
5645	09 - 07-20-87	Handle of a woman's knife	Bone	9.5 x 1.7	Insig. damage	AM Kivak
5819	47 - 07-15-96	Handle of a woman's knife	Wood	12.9 x 4.2	Sig. damage	AM Kivak
6075	86 - 11-29-96	Handle of a woman's knife	Wood	13.3 x 2.8	Insig. damage	AM Sireniki
6187	27 - 06-10-97	Handle of a woman's knife	Deer antler	9.3 x 1.8	Sig. damage	AM Avan
2657	02 - 05-25-85	Knife handle	Deer antler	13.0 x 2.0	Complete	AM Enmelen
3241	39 - 10-26-93	Knife handle	Deer antler	14.0 x 1.7	Insig. damage	AM Sireniki
3266	39 - 10-26-93	Knife handle	Deer antler	9.0 x 2.1	Insig. damage	AM Sireniki
3283	39 - 10-26-93	Knife handle	Deer antler	10.2 x 1.7	Insig. damage	AM Sireniki
4302	02 - 05-25-85	Knife handle	Deer antler	10.5 x 2.0	Complete	AM Enmelen
4756	39 - 08-30-94	Knife handle	Bone	14.0 x 3.5	Complete	AM Enmelen

Tools for butchering carcasses and working skins (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6084	86 - 11-29-96	Knife handle	Walrus tusk	6.2 x 1.3	Complete	AM Sireniki
6972	47 - 09-09-98	Knife handle	Bone	21.6 x 3.8	Insig. damage	AM Unirramkyt
6991	50 - 09-14-98	Knife handle	Walrus tusk	16.6 x 3.0	Insig. damage	AM Nuvuk
7133	15 - 05-20-99	Knife handle	Deer antler	15.3 x 2.1	Insig. damage	AM Sireniki
3517	08 - 03-05-91	Handle of a drawing knife	Wood	50.0 x 5.0	Sig. damage	AM Sireniki
4219/1	06 - 07-20-85	Handle of a woman's knife	Wood	7.8 x 3.4	Complete	AM Kivak
2720	02m/003-02-91	Drawing knife	Stone	8.7 x 6.2	Complete	AM Kivak
2722	02m/003-02-91	Drawing knife	Stone	6.3 x 5.2	Complete	AM Kivak
4337	02 - 05-25-85	Drawing knife	Stone	11.6 x 6.8	Complete	AM Emmelen
4472	09 - 07-20-88	Drawing knife	Stone	7.5 x 7.0	Complete	AM Kivak
4495	09 - 07-20-88	Drawing knife	Stone	8.5 x 4.6	Complete	AM Kivak
4526	09 - 07-20-88	Drawing knife	Stone	5.5 x 5.5	Complete	AM Kivak
4538	09 - 07-20-88	Drawing knife	Stone	6.5 x 4.0	Complete	AM Kivak
4539	09 - 07-20-88	Drawing knife	Stone	9.0 x 5.0	Complete	AM Kivak
4540	09 - 07-20-88	Drawing knife	Stone	6.4 x 5.0	Complete	AM Kivak
6267	37 - 07-14-97	Drawing knife	Stone	9.8 x 6.6	Complete	AM Kivak
7051	62 - 11-11-98	Drawing knife	Stone	11.7 x 8.5	Insig. damage	AM Kivak
6078	86 - 11-29-96	Drawing knife for removing fat	Walrus tusk	11.0 x 4.1	Complete	AM Unirramkyt
6092	86 - 11-29-96	Drawing knife for removing fat	Walrus tusk	17.3 x 3.4	Complete	AM Sireniki
6178	22 - 04-16-97	Drawing knife for removing fat	Walrus tusk	13.8 x 4.8	Sig. damage	AM Sireniki
4460	09 - 07-20-88	Drawing knife for removing fat	Bone	13.3 x 3.5	Sig. damage	AM Arakamchechen
22	01 - 05-15-85	Drawing knife for removing fat from gut	Walrus tusk	6.0 x 4.0	Complete	AM Kivak
1685	19 - 10-13-89	Drawing knife for removing fat from gut	Walrus tusk	12.9 x 3.4	Sig. damage	AM Sireniki
3145	37 - 10-12-93	Drawing knife for removing fat from gut	Walrus tusk	13.0 x 4.1	Insig. damage	AM Emmelen
3268	39 - 10-26-93	Drawing knife for removing fat from gut	Deer antler	14.0 x 3.6	Insig. damage	AM Sireniki
5813	46 - 07-04-96	Drawing knife for removing fat from gut	Walrus tusk	8.4 x 4.2	Insig. damage	AM Unazik
6058	86 - 11-29-96	Drawing knife for removing fat from gut	Walrus tusk	11.9 x 3.9	Insig. damage	AM Kivak
7098	70 - 11-18-98	Drawing knife for removing fat from gut	Walrus tusk	8.1 x 3.6	Complete	AM Chechen/Tasik
2706	03 - 08-19-87	Draw knife for removing fat, decor. (frag)	Walrus tusk	16.0 x 3.0	Insig. damage	AM Sireniki
4338	02 - 05-25-85	Scraper	Stone	12.5 x 6.0	Complete	AM Emmelen
4342	02 - 05-25-85	Scraper	Stone	4.3 x 5.1	Complete	AM Emmelen
4384	01 - 05-15-85	Scraper	Bone	15.0 x 2.4	Complete	AM Sireniki
4478	09 - 07-20-88	Scraper	Stone	6.5 x 3.4	Complete	AM Kivak
5444	62 - 10-19-95	Scraper	Obsidian	3.5 x 2.0	Complete	AM Sireniki
6974	49 - 09-09-98	Scraper	Obsidian	2.2 x 1.6	Complete	AM Avan

Tools for butchering carcasses and working skins (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
7109	06 - 03-11-99	Scraper	Stone	4.9 x 4.5	Complete	AM Plover
3110	37 - 10-12-93	Scraper (fragment)	Bone	13.5 x 1.0	Complete	AM Sireniki
3075	35 - 09-24-93	Scraper for working hides	Deer antler	20.2 x 2.7	Insig. damage	AM Sireniki
3253	39 - 10-26-93	Scraper for working hides	Bone	12.5 x 3.5	Insig. damage	AM Sireniki
3148	37 - 10-12-93	Scraper for working hides and gut	Bone	13.5 x 3.5	Insig. damage	AM Sireniki
3147	37 - 10-12-93	Scraper with handle (fragment)	Bone	13.5 x 3.0	Insig. damage	AM Sireniki
4349	02 - 05-25-85	Grinding stone	Stone	8.7 x 3.3	Complete	AM Enmelen
4518	09 - 07-20-88	Blade of a woman's knife (fragment)	Stone	8.5 x 4.3	Insig. damage	AM Kivak
6076	86 - 11-29-96	Woman's knife	Deer antler	4.7 x 5.3	Sig. damage	AM Sireniki

**Emplements of sewing and items of dress**

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
6345	52 - 08-22-97	Polisher	Stone	7.3 x 3.3	Complete	AM	Kivak
6079	86 - 11-29-96	Fastener	Bone	2.2	Insig. damage	AM	Sireniki
6080	86 - 11-29-96	Fastener	Bone	3.2 x 1.0	Complete	AM	Sireniki
4224	06 - 07-20-85	Fastener for a woman's belt	Bone	4.8 x 2.5	Complete	AM	Kivak
4764	39 - 08-30-94	Fastener for a woman's belt	Walrus tusk	3.9 x 1.1	Complete	AM	Enmelen
6086	86 - 11-29-96	Clasp-fastener	Walrus tusk	7.2 x 1.0	Insig. damage	AM	Sireniki
6370	63 - 10-03-97	Clasp-fastener	Walrus tusk	5.5 x 1.8	Insig. damage	AM	Sireniki
7116	06 - 03-11-99	Clasp-fastener	Deer antler	15.3 x 1.7	Complete	AM	Plover
4441	06 - 07-20-85	Clasp-fastener for a woman's bag	Bone	13.1 x 1.3	Complete	AM	Kivak
2766	11 - 09-22-89	Clasp-fastener for a woman's belt	Walrus tooth	2.3 x 1.7	Insig. damage	AM	Naukan
2767	02m/o03-02-91	Clasp-fastener for a woman's belt	Walrus tooth	2.4 x 1.7	Complete	AM	Naukan
3133	37 - 10-12-93	Clasp-fastener	Bone	3.7 x 1.6	Insig. damage	AM	Sireniki
2773	02m/o03-02-91	Needle	Walrus tusk	10.8 x 0.5	Complete	AM	Kivak
3073	35 - 09-24-93	Needle	Walrus tusk	7.8 x 0.5	Complete	AM	Sireniki
4512	09 - 07-20-88	Needle	Walrus tusk	6.7 x 0.4	Sig. damage	AM	Kivak
7136	15 - 05-20-99	Needle	Deer antler	10.0 x 0.3	Complete	AM	Sireniki
2713	01 - 05-15-85	Needle	Bone	10.6 x 0.5	Sig. damage	AM	Sireniki
4786	43 - 09-10-94	Needle	Bone	13.8 x 0.6	Complete	AM	Avan
2779	mo 03-02-91	Decorated needle case	Bone	7.7 x 1.1	Insig. damage	AM	Sireniki
3298	39 - 10-26-93	Decorated needle case	Bone	6.3 x 1.4	Insig. damage	AM	Sireniki
4315	02 - 05-25-85	Thimble holder	Deer antler	17.3 x 1.9	Complete	AM	Enmelen
2990	02a - 01-30-92	Thread	Sinew	20.0 x 0.4	Complete	EP	Nunligran
6257	35 - 11-29-96	Pendant	Walrus tusk	4.1 x 1.3	Complete	AM	Singak
6088	86 - 11-29-96	Borer-awl	Walrus tusk	10.7 x 1.0	Complete	AM	Sireniki
113	01 - 05-15-85	Punch	Bone	16.0 x 2.0	Insig. damage	AM	Sireniki
114	01 - 05-15-85	Punch	Bone	15.0 x 2.0	Insig. damage	AM	Sireniki
115	01 - 05-15-85	Punch	Bone	19.0 x 2.5	Insig. damage	AM	Sireniki
116	01 - 05-15-85	Punch	Bone	22.0 x 3.0	Insig. damage	AM	Sireniki
117	01 - 05-15-85	Punch	Bone	18.5 x 2.5	Insig. damage	AM	Sireniki
118	01 - 05-15-85	Punch	Bone	14.0 x 1.5	Insig. damage	AM	Sireniki
119	01 - 05-15-85	Punch	Walrus tusk	11.0 x 1.2	Insig. damage	AM	Sireniki
1687	19 - 10-13-89	Punch	Walrus tusk	7.4 x 1.5	Sig. damage	AM	Enmelen
2681	02m/o03-02-91	Punch	Walrus tusk	7.9 x 0.9	Complete	AM	Kivak
2772	02 - 05-25-85	Punch	Walrus tusk	7.1 x 1.9	Complete	AM	Enmelen
3107	37 - 10-12-93	Punch	Walrus tusk	10.5 x 1.4	Insig. damage	AM	Sireniki

Implements of sewing and items of dress (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3121	56 - 02-19-91	Punch	Bone	9.1 x 1.0	Complete	AM Enmelen
3169	37 - 10-12-93	Punch	Bone	9.7 x 1.4	Insig. damage	AM Sireniki
4311	02 - 05-25-85	Punch	Walrus tusk	5.8 x 1.0	Complete	AM Enmelen
5435	62 - 10-19-95	Punch	Bone	11.0 x 2.5	Insig. damage	AM Sireniki
5437	62 - 10-19-95	Punch	Walrus tusk	8.9 x 1.6	Insig. damage	AM Sireniki
6256	35 - 07-10-97	Punch	Bone	6.6 x 0.6	Complete	AM Singak
6644	13 - 03-20-98	Punch	Walrus tusk	6.3 x 0.9	Insig. damage	AM Enmelen
6645	13 - 03-20-98	Punch	Bone	9.3 x 0.9	Insig. damage	AM Enmelen
3122	37 - 10-12-93	Punch-awl	Bone	8.0 x 1.2	Insig. damage	AM Sireniki
3138	37 - 10-12-93	Punch-awl	Bone	8.2 x 0.6	Insig. damage	AM Sireniki
3138	37 - 10-12-93	Punch-awl	Bone	8.0 x 0.8	Insig. damage	AM Sireniki
3304	39 - 08-30-94	Punch-awl	Bone	9.5 x 1.0	Insig. damage	AM Sireniki
3336	39 - 08-30-94	Punch-awl	Bone	7.0 x 0.8	Insig. damage	AM Sireniki
3345	39 - 08-30-94	Punch-awl	Bone	6.1 x 1.2	Complete	AM Sireniki
6089	86 - 11-29-96	Punch-awl	Bone	8.5 x 1.5	Insig. damage	AM Sireniki
6109	88 - 12-04-96	Buckle	Walrus tusk	8.0 x 3.0	Insig. damage	AM Sireniki
3313	39 - 08-30-94	Carbine buckle	Walrus tusk	8.0 x 1.9	Sig. damage	AM Unazik
4387	01 - 05-15-85	Button buckle	Bone	6.0 x 2.6	Insig. damage	AM Sireniki
3158	37 - 10-12-93	Buckle-clasp	Bone	5.1 x 3.7	Complete	AM Sireniki
3175	37 - 10-12-93	Buckle-clasp	Wood	4.5 x 1.5	Insig. damage	AM Sireniki
3314	39 - 08-30-94	Buckle-clasp	Bone	3.6 x 1.4	Insig. damage	AM Sireniki
6277	37 - 10-12-93	Button	Bone	5.0 x 3.5	Sig. damage	AM Sireniki
2715	09 - 03-11-91	Button	Walrus tusk	4.9 x 3.5	Complete	EP Kivak
2716	09 - 03-11-91	Decorated button	Walrus tusk	6.0 x 3.7	Complete	AM Sireniki
5455	63 - 10-19-95	Decorated button	Walrus tusk	6.3	Insig. damage	AM Sireniki
130	01 - 05-15-85	Button buckle	Walrus tusk	3.5	Insig. damage	AM Sireniki
131	01 - 05-15-85	Button buckle	Walrus tusk	4.0	Complete	AM Sireniki
4073	43 - 12-17-93	Button/clasp	Walrus tusk	2.9 x 2.4	Complete	AM Enmelen
4759	39 - 08-30-94	Button/clasp	Walrus tusk	10.5 x 3.9	Insig. damage	AM Enmelen
6643	13 - 03-20-98	Button/clasp (blank)	Walrus tusk	3.5 x 1.7	Complete	AM Enmelen
4269	07 - 07-20-85	Handle of a woman's bag	Bone	31.8 x 1.4	Insig. damage	EP Arakamchechen
2532	02m/003-02-91	Snow beater	Deer antler	40.9 x 2.5	Complete	EP Enmelen
2702	18 - 10-13-89	Snow beater	Deer antler	34.9 x 2.7	Insig. damage	AM Enmelen
2726	02m/003-02-91	Snow beater	Wood	47.3 x 2.8	Insig. damage	EP Enmelen
3358	21 - 09-25-90	Snow beater	Deer antler	46.4 x 2.6	Sig. damage	EP Rudder

Implements of sewing and items of dress (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3359	21 - 09-25-90	Snow beater	Deer antler	52.0 x 2.6	Sig. damage	EP Rudder
3366	21 - 09-25-90	Snow beater	Deer antler	58.4 x 3.0	Insig. damage	EP Rudder
4240	06 - 07-20-85	Snow beater	Deer antler	30.0 x 2.3	Sig. damage	AM Kivak
6278	37 - 07-14-97	Snow beater	Deer antler	36.9 x 2.3	damage	EP Kivak
6291	37 - 07-14-97	Snow beater	Deer antler	51.5 x 2.6	Complete	EP Kivak
6315	44 - 08-03-97	Snow beater	Deer antler	56.1 x 4.8	Insig. damage	AM Kivak
4241	07 - 07-20-85	Snow beater (fragment)	Deer antler	23.6 x 3.8	Complete	AM Arakamchechen
4275	07 - 07-20-85	Snow beater (fragment)	Deer antler	16.4 x 3.9	Sig. damage	AM Arakamchechen
3105	37 - 10-12-93	Awl-punch	Bone	12.2 x 1.2	Insig. damage	AM Sireniki
3104	37 - 10-12-93	Awl-punch	Walrus tusk	11.5 x 1.2	Insig. damage	AM Sireniki
3126	37 - 10-12-93	Awl-punch	Bone	6.5 x 0.6	Insig. damage	AM Sireniki
3132	37 - 10-12-93	Awl-punch	Walrus tusk	9.7 x 1.2	Insig. damage	AM Sireniki
3134	37 - 10-12-93	Awl-punch	Walrus tusk	7.5 x 0.8	Insig. damage	AM Sireniki
3135	37 - 10-12-93	Awl-punch	Walrus tusk	5.3 x 0.6	Insig. damage	AM Sireniki
3183	37 - 10-12-93	Awl-punch	Walrus tusk	8.1 x 1.1	Complete	AM Sireniki
3246	39 - 08-30-94	Awl-punch	Walrus tusk	10.0 x 1.2	Insig. damage	AM Sireniki
3262	39 - 08-30-94	Awl-punch	Bone	8.5 x 0.7	Insig. damage	AM Sireniki
3265	39 - 08-30-94	Awl-punch	Walrus tusk	14.0 x 2.2	Insig. damage	AM Sireniki
3299	39 - 08-30-94	Awl-punch	Walrus tusk	10.0 x 1.7	Insig. damage	AM Sireniki
3305	39 - 08-30-94	Awl-punch	Bone	6.6 x 1.2	Complete	AM Sireniki
3306	39 - 08-30-94	Awl-punch	Walrus tusk	10.3 x 1.1	Insig. damage	AM Sireniki
3307	39 - 08-30-94	Awl-punch	Bone	8.0 x 1.0	Insig. damage	AM Sireniki
3328	39 - 08-30-94	Awl-punch	Walrus tusk	8.5 x 1.0	Insig. damage	AM Sireniki
3335	39 - 08-30-94	Awl-punch	Walrus tusk	8.7 x 0.8	Complete	AM Sireniki
3340	39 - 08-30-94	Awl-punch	Walrus tusk	10.7 x 0.7	Insig. damage	AM Sireniki
4112	48 - 12-07-93	Awl-punch	Bone	10.9 x 0.9	Complete	AM Sireniki
4462	09 - 07-20-88	Awl-punch	Walrus tusk	9.3 x 135.0	Insig. damage	AM Providenskiy Dist.
5400	56 - 10-13-95	Awl-punch	Walrus tusk	9.2 x 1.6	Insig. damage	AM Kivak
5760	09 - 07-20-88	Awl-punch	Bone	10.9 x 1.9	Complete	AM Imtuk
5828	50 - 07-23-96	Awl-punch	Bone porous	10.2 x 1.6	Complete	AM Kivak
4504/1	09 - 07-20-88	Awl-punch	Bone	7.1 x 1.0	Insig. damage	AM Avan
7132	15 - 05-20-99	Awl-punch	Walrus tusk	9.5 x 1.0	Insig. damage	AM Sireniki

## Vessels and domestic utensils

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
1671	19 - 10-13-89	Dish	Wood	62.4 x 21.2	Complete	EP	Enmelen
4555	11 - 12-10-87	Dish	Wood	38.0 x 27.0	Sig. damage	EP	Ratmanova I.
5293	41 - 08-01-95	Dish	Wood	60.0 x 27.1	Insig. damage	EP	Pouten
5296	41 - 08-01-95	Dish	Wood	2.7 x 16.4	Insig. damage	EP	Pouten
6952	40 - 09-02-98	Dish	Wood	92.5 x 34.0	Complete	EP	Plover
7094	68 - 11-17-98	Dish	Wood	27.2 x 16.5	Sig. damage	EP	Plover
4438	11 - 12-10-87	Dish	Wood	21.6	Sig. damage	EP	Ratmanova
6933	33 - 08-27-98	Dish	Wood	29.0 x 6.0	Sig. damage	EP	Kenishkhen
6349	54 - 09-03-97	Dish	Metal	31.0 x 7.5	Sig. damage	EP	Naukan
4377	02 - 05-25-85	Dish	Wood	34.2 x 14.4	Sig. damage	EP	Enmelen
5323	48 - 08-30-95	Dish (fragment)	Wood	31.8. x 16.7	Sig. damage	EP	Ukig'yarak
5359	54 - 10-11-95	Dish (fragment)	Wood	24.4 x 11.6	Sig. damage	AM	Avan
5967	64 - 08-26-96	Dish-tray	Wood	49.5 x 22.4	Sig. damage	EP	Arakamchechen
6955	40 - 09-02-98	Vessel rim (fragment)	Clay	5.4 x 4.8	Sig. damage	AM	Plover
6956	40 - 09-02-98	Vessel rim (fragment)	Clay	5.9 x 5.5	Sig. damage	AM	Ytryak
6981	49 - 09-09-98	Vessel rim (fragment)	Ceramic	8.6 x 5.7	Insig. damage	AM	Avan
6982	49 - 09-09-98	Vessel rim (fragment)	Ceramic	5.9 x 4.6	Insig. damage	AM	Avan
6983	49 - 09-09-98	Vessel rim (fragment)	Ceramic	5.1 x 3.9	Insig. damage	AM	Avan
6980	49 - 09-09-98	Vessel rim with decoration (fragment)	Ceramic	7.0 x 6.7	Insig. damage	AM	Avan
4361	47 - 11-16-94	Comb	Bone	6.4 x 2.3	Sig. damage	AM	Naukan
4758	39 - 08-30-94	Comb	Walrus tusk	9.0 x 3.1	Complete	AM	Enmelen
6184	27 - 06-10-97	Comb	Walrus tusk	7.1 x 2.8	Complete	AM	Avan
2711/1	02m/003-02-91	Comb	Walrus tusk	10.2 x 3.3	Complete	AM	Sireniki
2711/2	02m/003-02-91	Comb	Walrus tusk	11.0 x 3.7	Complete	AM	Sireniki
7102	01 - 01-25-99	Comb	Walrus tusk	9.9 x 2.5	Insig. damage	AM	Nunligran
7103	02 - 01-25-99	Comb	Walrus tusk	9.2 x 3.4	Sig. damage	AM	Yanrakynot
6284	37 - 07-14-97	A part of a yaranga frame	Bone	92.5 x 5.6	Insig. damage	EP	Kivak
2634	07 - 07-20-85	Inter-vertebral disk of a whale	Bone	16.5 x 15.3	Insig. damage	AM	Arakamchechen
2712	02m/003-02-91	Vessel bottom	Wood	17.1 x 7.6	Insig. damage	AM	Kivak
4439/1	06 - 07-20-85	Vessel bottom	Wood	10.1 x 8.2	Sig. damage	AM	Kivak
4439/2	06 - 07-20-85	Vessel bottom	Wood	12.1 x 9.3	Insig. damage	AM	Kivak
3161	37 - 10-12-93	Vessel/box bottom	Wood	8.5 x 5.6	Insig. damage	AM	Sireniki
3190	37 - 10-12-93	Vessel/box bottom	Wood	11.1 x 5.0	Insig. damage	AM	Sireniki
3191	37 - 10-12-93	Vessel/box bottom	Wood	11.1 x 5.0	Insig. damage	AM	Sireniki
3192	37 - 10-12-93	Vessel/box bottom	Wood	13.2 x 9.3	Insig. damage	AM	Sireniki

Vessels and domestic utensils (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
7115	06 - 03-11-99	Vessel/box bottom	Wood	11.0 x 3.7	Sig. damage	Plover
6319	46 - 08-03-97	Lamp	Ceramic	42.0 x 24.0	Sig. damage	Uniramkyt
4050	24 - 06-15-93	Lamp	Stone	23.8 x 12.5	Insig. damage	Sireniki
5329	48 - 08-30-95	Lamp	Stone	17.0 x 9.7	Sig. damage	Penkignei
6423	94 - 12-22-97	Lamp	Stone	19.1 x 15.7	Complete	Utaatak
6458	04 - 01-28-98	Lamp	Stone	18.3 x 14.6	Sig. damage	Yanrakynnot
6170	22 - 04-16-97	Lamp (fragment)	Stone	21.5 x 13.3	Insig. damage	Arakamchechen
7043	59/1 - 11-10-98	Lamp (fragment)	Ceramic	18.2 x 6.9	Sig. damage	Rudder
13	01 - 05-15-85	Large lamp	Ceramic	25.5 x 20.0	Complete	Sireniki
14	01 - 05-15-85	Small lamp	Ceramic	15.0 x 14.0	Complete	Sireniki
6288	37 - 07-14-97	A stone for attaching to a yaranga	Stone	37.4 x 26.7	Complete	Kivak
1695	19 - 10-13-89	Scoop	Wood	27.2 x 8.7	Sig. damage	Enmelen
2701	07 - 07-20-85	Scoop	Wood	36.5 x 10.2	Sig. damage	Arakamchechen
4054	25 - 06-16-93	Scoop	Wood	22.4 x 11.6	Sig. damage	Enmelen
4355	07 - 07-20-85	Small scoop	Wood	16.7 x 4.5	Sig. damage	Arakamchechen
6097	86 - 11-29-96	Small scoop	Wood	14.4 x 4.4	Sig. damage	Sireniki
2708	02m/03-02-91	Box	Baleen, wood	4.9 x 3.2 x 4.5	Sig. damage	Kivak
2782	11 - 12-10-87	Kettle	Ceramic	53.0 x 45.0	Sig. damage	Ratmanova
5282	40 - 07-27-95	Lid	Bone	36.5 x 44.5	Sig. damage	Kivak
6111	88 - 12-04-96	Lid (fragment)	Bone	21.8 x 17.0	Insig. damage	Unazik
6985	49 - 09-09-98	Vessel lid	Whale bone	47.1 x 37.2	Insig. damage	Avan
34	01 - 05-15-85	Hook	Deer antler	16.5 x 3.4	Complete	Sireniki
4253	07 - 07-20-85	Hook	Deer antler	13.9 x 4.4	Sig. damage	Arakamchechen
4507	09 - 07-20-88	Meat hook	Walrus tusk	6.7 x 1.8	Insig. damage	Kivak
27	01 - 05-15-85	Spoon	Deer antler	20.0 x 4.0	Complete	Sireniki
28	01 - 05-15-85	Spoon	Walrus tusk	13.5 x 5.0	Insig. damage	Sireniki
150	01 - 05-15-85	Spoon	Bone	8.4 x 2.4	Insig. damage	Sireniki
151	01 - 05-15-85	Spoon	Bone	18.5 x 2.0	Insig. damage	Sireniki
152	01 - 05-15-85	Spoon	Bone	11.8 x 3.0	Insig. damage	Sireniki
153	01 - 05-15-85	Spoon	Bone	14.4 x 4.0	Insig. damage	Sireniki
154	01 - 05-15-85	Spoon	Bone	4.5	Insig. damage	Sireniki
155	01 - 05-15-85	Spoon	Bone	13.5 x 0.4	Insig. damage	Sireniki
3031	50 - 12-06-91	Spoon	Wood	11.0 x 4.5	Sig. damage	Numigran
3172	56 - 02-19-91	Spoon	Deer antler	19.8 x 3.6	Sig. damage	Enmelen
3255	39 - 10-26-93	Spoon	Bone	16.1 x 1.6	Insig. damage	Sireniki

Vessels and domestic utensils (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3471	01 - 01-02-90	Spoon	Bone	23.8 x 2.3	Insig. damage	AM Avan
4074	43 - 12-17-93	Spoon	Deer antler	17.2 x 2.4	Complete	AM Enmelen
4121	48 - 12-07-93	Spoon	Deer antler	11.15 x 3.65	Insig. damage	AM Providenskiy Dist.
4123	48 - 12-07-93	Spoon	Walrus tusk	15.55 x 2.9	Sig. damage	AM Providenskiy Dist.
4358	47 - 11-16-94	Spoon	Walrus tusk	6.2 x 1.7	Sig. damage	AM Naukan
4751	39 - 08-30-94	Spoon	Deer antler	12.0 x 3.3	Insig. damage	AM Enmelen
4752	39 - 08-30-94	Spoon	Bone	19.4 x 4.6	Complete	AM Enmelen
4753	39 - 08-30-94	Spoon	Deer antler	11.05 x 3.3	Sig. damage	AM Enmelen
4754	39 - 08-30-94	Spoon	Bone	9.8 x 2.0	Sig. damage	AM Enmelen
5832	50 - 07-23-96	Spoon	Walrus tusk	12.9 x 3.7	Sig. damage	AM Avan
6166	20 - 04-14-97	Spoon	Bone	19.7 x 5.1	Complete	AM Enmelen
6167	20 - 04-14-97	Spoon	Bone	15.2 x 3.5	Complete	AM Enmelen
1684/1	19 - 10-13-89	Spoon	Bone	17.6 x 3.9	Sig. damage	AM Enmelen
1684/2	19 - 10-13-89	Spoon	Bone	11.2 x 2.2	Sig. damage	AM Enmelen
4782	43 - 09-10-94	Spoon	Deer antler	15.4 x 3.5	Insig. damage	AM Avan
3404	01 - 01-02-90	Spoon (fragment)	Tusk	11.1 x 1.8	Sig. damage	AM Avan
4225	06 - 07-20-85	Spoon (fragment)	Deer antler	11.6 x 1.5	Sig. damage	AM Kivak
4463	09 - 07-20-88	Spoon (fragment)	Bone	10.8 x 3.3	Complete	AM Kivak
3315	39 - 10-26-93	Spoon (fragment)	Bone	5.5 x 4.3	Insig. damage	AM Sireniki
3323	39 - 10-26-93	Spoon (fragment)	Deer antler	16.1 x 3.9	Insig. damage	AM Sireniki
4304	02 - 05-25-85	Spoon (fragment)	Walrus tusk	11.8 x 1.3	Complete	AM Enmelen
6634	10 - 02-19-98	Spoon (fragment)	Deer antler	15.65 x 5.9	Sig. damage	AM Arakamchechen
6093	86 - 11-29-96	Spoon with handle	Bone	14.9 x 4.3	Insig. damage	AM Sireniki
3324	39 - 10-26-93	Spoon-scoop (fragment)	Deer antler	11.0 x 7.0	Insig. damage	AM Sireniki
5439	62 - 10-19-95	Shovel	Bone	24.6 x 4.3	Insig. damage	AM Sireniki
3334	39 - 10-26-93	Small shovel	Bone	14.5 x 6.7	Insig. damage	AM Sireniki
6094	86 - 11-29-96	Small shovel with handle	Bone	11.3 x 3.3	Insig. damage	AM Sireniki
5820	47 - 07-15-96	Small shovel/spoon (fragment)	Deer antler	11.7 x 8.6	Insig. damage	AM Kivak
6973	47 - 09-09-98	Hammer	Bone	6.4 x 6.5	Insig. damage	AM Uniramkyt
2759/1	02o/m03-02-91	Rim for a drum	Wd., bal., hide	41.5 x 11.5	Complete	EP Providenskiy Dist.
2759/2	02o/m03-02-91	Rim for a drum	Wd., bal., hide	32.5 x 15.5	Complete	EP Providenskiy Dist.
6287	37 - 07-14-97	Fragment of a bottle with inscription	Glass	9.5 x 7.4	Fr., complete	EP Kivak
6096	86 - 11-29-96	Saucer	Wood	22.8 x 10.9	Insig. damage	AM Sireniki
4052	25 - 06-16-93	Saucer/trough	Wood	15.7 x 9.2	Insig. damage	EP Enmelen
6320	46 - 08-03-97	Pedestal	Bone	15.2 x 5.7	Insig. damage	EP Uniramkyt

Vessels and domestic utensils (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
6984	49 - 09-09-98	Device for crushing bone	Stone	17.6 x 16.6	Complete	Avan
4975	55 - 12-07-94	Woman's comb	Walrus tusk	7.0 x 7.8	Sig. damage	Nunligran
4389	01 - 05-15-85	Handle	Bone	18.0 x 2.2	Insig. damage	Sireniki
4249	07 - 07-20-85	Handle (fragment)	Wood	17.2 x 2.7	Sig. damage	Arakamchechen
4254	07 - 07-20-85	Handle (fragment)	Wood	20.2 x 6.2	Sig. damage	Arakamchechen
4260	07 - 07-20-85	Handle (fragment)	Wood	11.7 x 2.2	Sig. damage	Arakamchechen
5440	62 - 10-19-95	Vessel handle	Bone	22.0 x 3.4	Insig. damage	Sireniki
6027	71 - 09-30-96	Vessel handle	Bone	8.6 x 0.9	Insig. damage	Vankarem
3123	37 - 10-12-93	Vessel handle (fragment)	Bone	10.8 x 1.5	Insig. damage	Sireniki
6186	27 - 06-10-97	Vessel/pail handle	Deer antler	25.5 x 2.3	Sig. damage	Avan
4392	01 - 05-15-85	Punch handle	Bone	10.4 x 2.3	Insig. damage	Sireniki
5448	62 - 10-19-95	Handle	Wood	15.4 x 3.0	Insig. damage	Sireniki
2724	02o/m03-02-91	Scoop handle	Wood	25.9 x 3.8	Insig. damage	Enmelen
3174	37 - 10-12-93	Vessel handle	Walrus tusk	15.1 x 2.0	Insig. damage	Sireniki
3245	39 - 10-26-93	Vessel/pail handle	Walrus tusk	11.0 x 1.8	Insig. damage	Sireniki
3251	39 - 10-26-93	Vessel/pail handle	Wood	22.5 x 2.5	Insig. damage	Sireniki
4211	06 - 07-10-85	Vessel/pail handle	Bone	19.3 x 0.8	Insig. damage	Kivak
4464	09 - 07-20-88	Vessel/pail handle	Walrus tusk	17.0 x 2.4	Sig. damage	Kivak
5816	47 - 07-15-96	Vessel/pail handle	Bone	25.3 x 3.3	Insig. damage	Kivak
6057	86 - 11-29-96	Vessel/pail handle	Walrus tusk	10.5 x 1.5	Sig. damage	Kivak
2643	02o/m03-02-91	Vessel/pail handle, decorated (fragment)	Walrus tusk	19.0 x 3.3	Sig. damage	Kivak
3264	39 - 10-26-93	Handle for a bag	Wood	32.2 x 1.5	Insig. damage	Sireniki
4077	43 - 12-17-93	Vessel	Wood	6.65 x 5.7	Sig. damage	Enmelen
2700	07 - 07-20-85	Vessel	Wood	37.8 x 10.6	Sig. damage	Arakamchechen
2709	07 - 07-20-85	Vessel	Wood	21.5 x 10.5	Sig. damage	Arakamchechen
15	01 - 05-15-85	Vessel (fragment)	Clay	14.0 x 12.5	Insig. damage	Sireniki
4451	06 - 07-20-85	Vessel/box	Baleen, wood	8.5 x 4.4	Sig. damage	Kivak
4	01 - 05-15-85	Vessel/box	Baleen, wood	7.0 x 2.0	Insig. damage	Sireniki
5453	63 - 10-19-95	Vessel/box	Baleen	7.8 x 7.3	Sig. damage	Sireniki
7139	15 - 05-20-99	Hackle	Bone	5.5	Insig. damage	Sireniki
3082	01 - 01-09-92	Vessel wall	Baleen	23.0 x 22.0	Insig. damage	Avan
4450	06 - 07-20-85	Vessel wall	Baleen	7.5 x 5.2	Sig. damage	Kivak
6169	22 - 04-16-97	Vessel/pail wall	Baleen	20.5 x 27.5	Insig. damage	Arakamchechen
3063	34 - 10-21-93	Vessel/box wall	Baleen	14.4 x 7.3	Insig. damage	Kivak
4242	07 - 07-20-85	Vessel/box wall	Baleen	10.5 x 8.6	Sig. damage	Arakamchechen

Vessels and domestic utensils (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
5449	62 - 10-19-95	Vessel/box wall	Baleen	8.5 x 7.5	Insig. damage	AM Sireniki
6376	66 - 10-06-97	Vessel/box wall	Baleen	13.87 x 6.6	Insig. damage	AM Avan
5358	54 - 10-11-95	Vessel/box wall (fragment)	Baleen	13.0 x 8.4	Sig. damage	AM Avan
6363	59 - 09-26-97	Bag	Hide	48.0 x 24.0	Insig. damage	EP Yanrakynnot
2696	23 - 10-25-89	Woman's bag for collecting grass	Hide	39.0 x 28.5	Sig. damage	EP Enmelen
4055	25 - 06-16-93	Plate	Wood, baleen	22.5 x 6.4	Complete	EP Enmelen
7046	59/1 - 11-10-98	Plate (fragment)	Wood	37.2 x 7.1	Sig. damage	EP Rudder
5822	47 - 07-15-96	Crusher	Wood	18.2 x 5.5	Insig. damage	EP Kivak
6108	88 - 12-04-96	Grindstone	Sandstone	11.8 x 7.2	Complete	EP Unazik
6928	32 - 08-27-98	Teapot	Metal	20.0 x 27.0	Sig. damage	EP Sireniki
2730	07 - 07-20-85	Cup	Whale bone	12.0 x 23.7	Insig. damage	EP Arakamchechen
5294	41 - 08-01-95	Cup	Wood	17.5 x 9.6	Sig. damage	EP Pouten
5295	41 - 08-01-95	Cup	Wood	15.8 x 7.0	Sig. damage	EP Pouten
7	01 - 05-15-85	Cup	Whale bone	34.0 x 22.0	Insig. damage	AM Sireniki
2798	01 - 01-02-90	Cup	Porcelain	6.6 x 8.2	Sig. damage	EP Kivak
5305	47 - 08-25-95	Clay vessel fragment	Clay	6.5 x 4.5	Sig. damage	AM Yryrak
5445	62 - 10-19-95	Clay vessel fragment	Ceramic	8.8 x 7.8	Insig. damage	AM Sireniki
5446	62 - 10-19-95	Clay vessel fragment	Ceramic	6.1 x 3.6	Insig. damage	AM Sireniki
5821	47 - 07-15-96	Clay vessel fragment	Ceramic	13.8 x 8.6	Insig. damage	AM Kivak
5833	50 - 07-23-96	Clay vessel fragment	Ceramic	11.6 x 6.5	Sig. damage	AM Avan
5836	50 - 07-23-96	Clay vessel fragment	Ceramic	10.9 x 8.0	Insig. damage	AM Avan
5281/1	40 - 07-27-95	Clay vessel fragment	Ceramic	10.2 x 7.5	Sig. damage	AM Kivak
5281/2	40 - 07-27-95	Clay vessel fragment	Ceramic	6.0 x 3.5	Sig. damage	AM Kivak
5281/3	40 - 07-27-95	Clay vessel fragment	Ceramic	8.0 x 5.0	Sig. damage	AM Kivak
5281/4	40 - 07-27-95	Clay vessel fragment	Ceramic	5.8 x 5.6	Sig. damage	AM Kivak
5281/5	40 - 07-27-95	Clay vessel fragment	Ceramic	7.0 x 5.1	Insig. damage	AM Kivak
5281/6	40 - 07-27-95	Clay vessel fragment	Ceramic	11.0 x 10.8	Sig. damage	AM Kivak
5361	54 - 10-11-95	Lamp fragment	Ceramic	9.0 x 8.2	Insig. damage	AM Avan
5834	50 - 07-23-96	Lamp fragment	Ceramic	13.7 x 9.7	Insig. damage	AM Avan
5835	50 - 07-23-96	Lamp fragment	Ceramic	10.4 x 9.0	Insig. damage	AM Avan
6191	27 - 06-10-97	Lamp fragment	Ceramic	14.5 x 8.5	Insig. damage	AM Avan
6279	37 - 07-14-97	Lamp fragment	Ceramic	14.2 x 10.1	Sig. damage	EP Kivak
4428	07 - 07-20-85	Rim fragment of a vessel	Ceramic	6.7 x 6.0 x 1.0	Insig. damage	AM Arakamchechen
5362	54 - 10-11-95	Rim fragment of a vessel	Ceramic	5.8 x 5.1	Insig. damage	AM Avan
5360	54 - 10-11-95	Vessel fragment	Ceramic	12.2 x 10.5	Insig. damage	AM Avan

Vessels and domestic utensils (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
5364	54 - 10-11-95	Vessel fragment	Ceramic	7.7 x 7.7	Insig. damage	AM Avan
6957	40 - 09-02-98	Vessel fragment	Clay	7.3 x 5.2	Sig. damage	AM Yryrak
5363	54 - 10-11-95	Vessel fragment with an eye	Ceramic	4.5 x 2.9	Insig. damage	AM Avan
6978	49 - 09-09-98	Vessel fragment with an eye	Ceramic	7.8 x 7.7	Sig. damage	AM Avan
6979	49 - 09-09-98	Vessel fragment with an eye	Ceramic	11.2 x 10.0	Sig. damage	AM Avan
3165	37 - 10-12-93	Ceramics stamp	Bone	20.2 x 4.5	Insig. damage	AM Sireniki
4053	25 - 06-16-93	Ceramics stamp	Walrus tusk	17.9 x 5.8	Insig. damage	AM Enmelen
4307	02 - 05-25-85	Ceramics stamp	Walrus tusk	15.8 x 4.4	Sig. damage	AM Enmelen
4381	01 - 05-15-85	Ceramics stamp	Bone	15.2 x 2.0	Insig. damage	AM Sireniki
5447	62 - 10-19-95	Ceramics stamp	Wood	22.8 x 3.5	Insig. damage	AM Sireniki
6199	28 - 06-13-97	Ceramics stamp	Wood	25.0 x 6.2	Sig. damage	EP Kivak
5886	55 - 08-15-96	Ceramics stamp (fragment)	Walrus tusk	16.8 x 6.2	Sig. damage	AM Arakamechen

## Means of transportation

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
98	01 - 05-15-85	Boat hook	Walrus tusk	10.5 x 2.5	Sig. damage	AM	Sireniki
101	01 - 05-15-85	Boat hook	Walrus tusk	15.0 x 4.0	Insig. damage	AM	Sireniki
2656	02 - 05-25-85	Boat hook	Walrus tusk	15.3 x 2.4	Complete	AM	Emmelen
4312	02 - 05-25-85	Boat hook	Walrus tusk	8.9 x 1.9	Insig. damage	AM	Emmelen
4319	02 - 05-25-85	Boat hook	Walrus tusk	9.8 x 2.6	Sig. damage	AM	Emmelen
4831	54 - 12-13-94	Boat hook	Walrus tusk	6.0 x 1.7	Insig. damage	AM	Providenskiy Dist.
2723	06 - 07-20-85	Block	Walrus tusk	13.1 x 7.1	Complete	AM	Kivak
3247	39 - 10-26-93	Block	Bone	7.7 x 4.0	Insig. damage	AM	Sireniki
35	01 - 05-15-85	Baidar block	Bone	12.0 x 5.4	Complete	AM	Sireniki
4252	07 - 07-20-85	Baidar block	Walrus tusk	12.0 x 4.5	Insig. damage	AM	Arakamchechen
6098	86 - 11-29-96	Oar (fragment)	Wood	51.2 x 9.5	Sig. damage	AM	Sireniki
2815	46 - 11-27-91	Beater for a baidar	Walrus tusk	57.5 x 3.0	Complete	AM	Avan
2776	02m/003-02-91	A swivel part	Deer antler	14.2 x 2.4	Complete	AM	Kivak
6350	54 - 09-03-97	A fastening part	Walrus tusk	12.5 x 4.5	Sig. damage	AM	Chiegtgyyn
3364	21 - 09-25-90	A sled part	Deer antler	14.5 x 3.2	Insig. damage	EP	Rudder
3370	21 - 09-25-90	A sled part	Walrus tusk	15.8 x 3.1	Insig. damage	EP	Rudder
3380	21 - 09-25-90	A sled part	Bone	24.4 x 4.3	Insig. damage	EP	Rudder
4243	07 - 07-20-85	A sled part	Deer antler	33.4 x 2.6	Sig. damage	EP	Arakamchechen
4262	07 - 07-20-85	A sled part	Bone	14.8 x 3.2	Insig. damage	EP	Arakamchechen
4266	07 - 07-20-85	A sled part	Bone	10.4 x 1.9	Insig. damage	EP	Arakamchechen
4276	07 - 07-20-85	A sled part	Deer antler	37.5 x 3.1	Sig. damage	EP	Arakamchechen
4278	07 - 07-20-85	A sled part	Deer antler	12.7 x 3.1	Sig. damage	EP	Arakamchechen
4244	07 - 07-20-85	A sled part (fragment)	Deer antler	24.4 x 2.1	Sig. damage	EP	Arakamchechen
4251	07 - 07-20-85	A sled part (fragment)	Bone	26.7 x 2.7	Sig. damage	EP	Arakamchechen
4267	07 - 07-20-85	A sled part (fragment)	Deer antler	7.6 x 2.6	Sig. damage	EP	Arakamchechen
4273	07 - 07-20-85	A sled part (fragment)	Deer antler	15.4 x 2.0	Sig. damage	EP	Arakamchechen
4282	07 - 07-20-85	A sled part (fragment)	Bone	18.9 x 2.4	Sig. damage	EP	Arakamchechen
4423	07 - 07-20-85	A sled part (fragment)	Deer antler	19.6 x 2.9	Sig. damage	EP	Arakamchechen
4425	07 - 07-20-85	A sled part (fragment)	Deer antler	15.2 x 3.0	Sig. damage	EP	Arakamchechen
157	01 - 05-15-85	Fastener for a towing thong	Walrus tusk	6.7 x 3.7	Insig. damage	EP	Sireniki
3076	35 - 09-24-93	Fastener for a towing thong	Walrus tusk	4.8 x 2.5	Insig. damage	AM	Sireniki
3162	37 - 10-12-93	Fastener for a towing thong	Walrus tusk	14.1 x 2.2	Insig. damage	AM	Sireniki
3274	39 - 10-26-93	Fastener for a towing thong	Wood	17.5 x 2.6	Insig. damage	AM	Sireniki
4280	07 - 07-20-85	Fastener for a towing thong	Bone	10.6 x 2.0	Insig. damage	AM	Arakamchechen
4325	02 - 05-25-85	Fastener for a towing thong	Walrus tusk	6.9 x 2.2	Insig. damage	AM	Emmelen

Means of transportation (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4306	02 - 05-25-85	Clasp-fastener	Deer antler	8.5 x 1.5	Insig. damage	AM Emmelen
1692	19 - 10-13-89	Carabiner	Walrus tusk	4.7 x 2.0	Sig. damage	AM Emmelen
4763	39 - 08-30-94	Carabiner	Walrus tusk	3.7 x 2.1	Insig. damage	AM Emmelen
6325	48 - 08-22-97	Carabiner	Walrus tusk	3.8 x 2.0	Complete	AM Yanrakynnot
3344	39 - 10-26-93	Carabiner-buckle	Walrus tusk	5.0 x 1.6	Insig. damage	AM Sireniki
65	01 - 05-15-85	Ice creepers	Walrus tusk	6.0 x 2.5	Insig. damage	AM Sireniki
66	01 - 05-15-85	Ice creepers	Walrus tusk	8.5 x 3.0	Insig. damage	AM Sireniki
3361	21 - 09-25-90	Ice creepers	Bone	11.0 x 4.1	Sig. damage	EP Rudder
3362	21 - 09-25-90	Ice creepers	Walrus tusk	10.1 x 4.0	Insig. damage	AM Rudder
4757	39 - 08-30-94	Ice creepers	Walrus tusk	8.0 x 3.1	Complete	AM Emmelen
2651/1	07 - 07-20-85	Ice creepers	Bone	7.9 x 3.6	Insig. damage	AM Arakamchechen
2651/2	07 - 07-20-85	Ice creepers	Walrus tusk	10.1 x 3.1	Insig. damage	AM Arakamchechen
7118	07 - 07-20-85	Ice creepers	Bone	11.9 x 4.7	Insig. damage	AM Plover
3382	20 - 10-09-90	Ice creepers	Walrus tusk	7.5 x 2.6	Insig. damage	AM Sireniki
3363	21 - 09-25-90	Ice creepers (fragment)	Bone	9.4 x 3.8	Sig. damage	EP Rudder
5398	56 - 10-13-95	Ice creepers (fragment)	Walrus tusk	5.7 x 3.4	Sig. damage	AM Imtuk
5962	64 - 08-26-96	Ice creepers (fragment)	Tusk, metal	6.3 x 2.5	Insig. damage	EP Arakamchechen
4264	07 - 07-20-85	Point of an ice staff	Deer antler	14.7 x 1.7	Sig. damage	AM Arakamchechen
5809	42 - 06-26-96	Point of an ice staff	Walrus tusk	8.1 x 2.2	Sig. damage	AM Arakamchechen
6133	08 - 02-28-97	Point of an ice staff	Walrus tusk	9.0 x 3.0	Insig. damage	AM Arakamchechen
112	01 - 05-15-85	Whip point	Walrus tusk	5.9 x 2.8	Complete	AM Sireniki
3182	37 - 10-12-93	Whip point	Walrus tusk	5.1 x 2.7	Insig. damage	AM Achchen
3740	32 - 05-08-91	Whip point	Deer antler	5.4 x 2.3	Insig. damage	AM Sireniki
3372	21 - 09-25-90	Sole (fragment)	Bone, hide	38.1 x 6.6	Complete	EP Rudder
3374	21 - 09-25-90	Sole (fragment)	Bone	44.1 x 5.6	Sig. damage	EP Rudder
5837	50 - 07-23-96	Sole of a baidar keel	Whale bone	31.3 x 5.8	Insig. damage	AM Avan
5964	64 - 08-26-96	Sole of a baidar keel	Bone	26.5 x 6.4	Insig. damage	AM Arakamchechen
6106	88 - 12-04-96	Sole of a baidar keel	Bone	37.2 x 5.3	Insig. damage	AM Unazik
6107	88 - 12-04-96	Sole of a baidar keel	Bone	22.0 x 5.6	Insig. damage	AM Unazik
6197	28 - 06-13-97	Sled runner sole	Bone	88.0 x 7.0	Insig. damage	EP Kivak
6281	37 - 07-14-97	Sled runner sole	Bone	79.7 x 6.7	Insig. damage	EP Kivak
6283	37 - 07-14-97	Sled runner sole (fragment)	Bone	89.0 x 7.7	Sig. damage	EP Kivak
6285	37 - 07-14-97	Sled runner sole (fragment)	Bone	45.5 x 3.2	Insig. damage	EP Kivak
6631	10 - 02-19-98	Sled runner sole (fragment)	Walrus tusk	13.6 x 4.8	Complete	AM Arakamchechen
2628	02m/003-02-91	Runner sole of a dog sled	Bone	23.5 x 4.7	Sig. damage	AM Emmelen

Means of transportation (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
2623/1	01 - 01-02-90	Runner sole of a dog sled	Whale bone	23.8 x 5.9	Insig. damage	EP Rudder
2623/2	01 - 01-02-90	Runner sole of a dog sled	Whale bone	29.6 x 6.6	Sig. damage	EP Rudder
2623/4	01 - 01-02-90	Runner sole of a dog sled	Whale bone	21.7 x 6.1	Sig. damage	EP Rudder
4072	07 - 07-20-85	Sled runner	Walrus tusk	57.4 x 2.6	Insig. damage	AM Arakamchechen
4272	07 - 07-20-85	Sled runner	Bone	5.7 x 4.8	Insig. damage	EP Arakamchechen
4418	07 - 07-20-85	Sled runner	Bone	39.0 x 3.5	Insig. damage	AM Arakamchechen
4419	07 - 07-20-85	Sled runner	Walrus tusk	29.4 x 4.8	Insig. damage	AM Arakamchechen
4454	06 - 07-20-85	Sled runner	Walrus tusk	28.0 x 5.4	Insig. damage	AM Kivak
4467	09 - 07-20-88	Sled runner	Walrus tusk	47.7 x 4.2	Sig. damage	AM Kivak
4468	09 - 07-20-88	Sled runner	Walrus tusk	50.5 x 5.1	Complete	AM Kivak
5434	62 - 10-19-95	Sled runner	Walrus tusk	19.2 x 3.8	Sig. damage	AM Sireniki
5438	62 - 10-19-95	Sled runner	Walrus tusk	24.0 x 2.8	Sig. damage	AM Sireniki
5887	55 - 08-15-96	Sled runner	Walrus tusk	36.1 x 3.9	Insig. damage	AM Arakamchechen
5963	64 - 08-26-96	Sled runner	Bone	49.9 x 5.1	Complete	AM Arakamchechen
6182	26 - 06-09-97	Sled runner	Walrus tusk	55.0 x 6.0	Insig. damage	AM Sireniki
6456	04 - 01-28-98	Sled runner	Bone	50.5 x 2.29	Sig. damage	EP Yanrakyannot
2673/1	01 - 01-02-90	Sled runner	Walrus tusk	50.1 x 5.0	Sig. damage	AM Kivak
2673/2	01 - 01-02-90	Sled runner	Walrus tusk	46.5 x 4.5	Sig. damage	AM Kivak
2642	33 - 01-18-90	Sled runner	Walrus tusk	50.0 x 5.0	Insig. damage	AM Providenskiy Dist.
1681	19 - 10-13-89	Sled runner (fragment)	Walrus tusk	21.6 x 1.1	Sig. damage	AM Enmelen
2729	01 - 01-02-90	Sled runner (fragment)	Walrus tusk	10.9 x 3.3	Sig. damage	AM Avan
3070	35 - 09-24-93	Sled runner (fragment)	Walrus tusk	14.2 x 4.2	Sig. damage	AM Sireniki
3071	35 - 09-24-93	Sled runner (fragment)	Walrus tusk	7.2 x 5.1	Insig. damage	AM Sireniki
4259	07 - 05-20-85	Sled runner (fragment)	Walrus tusk	12.9 x 2.9	Sig. damage	AM Arakamchechen
4271	07 - 07-20-85	Sled runner (fragment)	Walrus tusk	23.8 x 4.0	Insig. damage	AM Arakamchechen
4396	01 - 05-15-85	Sled runner (fragment)	Walrus tusk	15.5 x 5.5	Sig. damage	AM Sireniki
5272	40 - 07-27-95	Sled runner (fragment)	Walrus tusk	16.6 x 3.8	Insig. damage	AM Kivak
5602	12 - 02-08-96	Sled runner (fragment)	Walrus tusk	20.1 x 3.3	Sig. damage	AM Unazik
6020	71 - 09-30-96	Sled runner (fragment)	Walrus tusk	19.5 x 2.8	Sig. damage	AM Vankarem
6126	07 - 02-27-97	Sled runner (fragment)	Walrus tusk	16.2 x 4.4	Sig. damage	AM Arakamchechen
6348	53 - 09-03-97	Sled runner (fragment)	Walrus tusk	8.7 x 4.3	Sig. damage	AM Nunligran
6375	64 - 10-03-97	Sled runner (fragment)	Walrus tusk	13.6 x 5.0	Sig. damage	AM Arakamchechen
6863	22 - 04-10-98	Sled runner (fragment)	Walrus tusk	35.6 x 5.3	Sig. damage	AM Nunligran
7042	59/1 - 11-10-98	Sled runner (fragment)	Walrus tusk	13.3 x 3.2	Sig. damage	AM Rudder
3313	39 - 10-26-93	Buckle-carabiner	Bone	6.0 x 1.9	Insig. damage	AM Sireniki

Means of transportation (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
2837	22 - 11-13-92	Small sled	Tusk, hide, wd.	49.0 x 49.0	Sig. damage	AM Sireniki
7045	59/1 - 11-10-98	Sled	Wood	40.3 x 36.0	Sig. damage	AM Rudder
4070/1	07 - 07-20-85	Snowshoe	Wood, hide	63.0 x 19.3	Insig. damage	EP Aramakchechen
4070/2	07 - 07-20-85	Snowshoe	Wood, hide	56.0 x 18.5	Sig. damage	EP Aramakchechen
21/1	01 - 05-15-85	Snowshoe	Wood	62.5 x 19.5	Insig. damage	EP Sireniki
6173	22 - 04-16-97	Baidar oarlock (fragment)	Bone	23.3 x 4.6	Sig. damage	AM Aramakchechen

## Items of military equipment

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Site
3371	21 - 09-25-90	Plate	Bone	18.0 x 4.1	Complete	Rudder
1678	19 - 10-13-89	Plate of fighting armor	Deer antler	27.6 x 2.2	Complete	Enmelen
1679	19 - 10-13-89	Plate of fighting armor	Deer antler	12.4 x 4.2	Complete	Enmelen
1680	19 - 10-13-89	Plate of fighting armor	Deer antler	16.9 x 2.0	Complete	Enmelen
3376	21 - 09-25-90	Plate of fighting armor	Deer antler	12.1 x 3.3	Insig. damage	Rudder
5808	42 - 06-26-96	Plate of fighting armor	Bone	14.7 x 1.9	Sig. damage	Aarakamchechen
6087	86 - 11-29-96	Plate of fighting armor	Deer antler	16.7 x 2.2	Insig. damage	Sireniki
1674/1	19 - 10-13-89	Plate of fighting armor	Deer antler	30.2 x 2.4	Complete	Enmelen
1674/2	19 - 10-13-89	Plate of fighting armor	Deer antler	29.5 x 2.5	Complete	Enmelen
1675/1	19 - 10-13-89	Plate of fighting armor	Deer antler	28.8 x 2.7	Complete	Enmelen
1675/2	19 - 10-13-89	Plate of fighting armor	Deer antler	26.2 x 3.2	Complete	Enmelen
1675/3	19 - 10-13-89	Plate of fighting armor	Deer antler	27.2 x 2.3	Complete	Enmelen
1676/1	19 - 10-13-89	Plate of fighting armor	Deer antler	25.3 x 2.7	Complete	Enmelen
1676/2	19 - 10-13-89	Plate of fighting armor	Deer antler	24.7 x 2.5	Complete	Enmelen
1676/3	19 - 10-13-89	Plate of fighting armor	Deer antler	24.2 x 3.0	Complete	Enmelen
1677/1	19 - 10-13-89	Plate of fighting armor	Deer antler	19.2 x 2.3	Complete	Enmelen
1677/2	19 - 10-13-89	Plate of fighting armor	Deer antler	19.0 x 2.5	Complete	Enmelen
1677/3	19 - 10-13-89	Plate of fighting armor	Deer antler	19.4 x 2.5	Complete	Enmelen
2623/3	02m/o03-02-91	Plate of fighting armor	Whale bone	24.8 x 4.35	Insig. damage	Rudder
6018	71 - 09-30-96	Plate of fighting armor	Bone	18.8 x 2.2	Insig. damage	Vankarem
1679	19 - 10-13-89	Plate of fighting armor (fragment)	Deer antler	12.5 x 3.0	Complete	Enmelen

## Cult objects, small sculptures, and ornaments

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
6263	37 - 07-14-97	Amulet	Baleen	3.6 x 2.2	Complete	AM	Kivak
6361	60 - 10-03-97	Amulet	Hide	58.0 x 58.0	Complete	EP	Yanrakynnot
6362	60 - 10-03-97	Amulet	Wood	55.5 x 28.0	Complete	EP	Yanrakynnot
29	01 - 05-15-85	Amulet "One-armed person"	Wood	8.5 x 12.5	Insig. damage	AM	Sireniki
3738	32 - 05-08-91	Amulet-pendant	Bone	6.2 x 1.0	Insig. damage	AM	Sireniki
4367	11 - 09-22-89	Anthropomorphic figure	Tooth	3.7 x 1.35	Sig. damage	AM	Naukan
4394	01 - 05-15-85	Anthropomorphic figure	Walrus tusk	6.0 x 3.0	Complete	AM	Sireniki
7104	03 - 01-25-99	Anthropomorphic figure	Walrus tusk	6.5 x 2.1	Insig. damage	AM	Sireniki
7004	51 - 09-16-98	Anthropomorphic figurine	Walrus tusk	8.0 x 2.7	Sig. damage	AM	Nuvuk
4379	01 - 05-15-85	Ritual dish	Bone	13.7 x 6.0	Insig. damage	AM	Sireniki
168	01 - 05-15-85	Decorated pendant	Walrus tusk	7.5 x 5.0	Insig. damage	AM	Sireniki
7101	71 - 11-18-98	Drum	Wood, gut	68.0 x 4.5	Complete	EP	Novo Chaplino
4788	43 - 09-10-94	Small drum	Copper	2.0 x 1.3	Sig. damage	EP	Avan
4781	43 - 09-10-94	Beads (79 items)	Glass, tusk	44	Complete	EP	Avan
2765	07 - 07-20-85	Whaleboat (toy)	Wood	18.7 x 6.0	Sig. damage	EP	Arakamchechen
3142	37 - 10-12-93	Oar (toy/ritual object)	Wood	8.7 x 1.7	Insig. damage	AM	Sireniki
3143	37 - 10-12-93	Oar (toy/ritual object)	Wood	15.5 x 2.0	Insig. damage	AM	Sireniki
3152	37 - 10-12-93	Oar (toy/ritual object)	Wood	8.3 x 1.6	Insig. damage	AM	Sireniki
6188	27 - 06-10-97	Toy/ritual oar	Wood	15.0 x 2.2	Sig. damage	AM	Avan
1672	19 - 10-13-89	Part of an ornament	Bone	2.45 x 1.1	Sig. damage	AM	Emmelen
3475	01 - 01-02-90	Part of an ornament	Shell	1.25 x 0.15	Complete	AM	Avan
2704	02 - 05-25-85	Sacrificial (ritual) vessel (fragment)	Bone	10.0 x 5.8	Insig. damage	AM	Kivak
3081	36 - 09-25-93	Clasp-buckle	Bone	8.7 x 2.0	Insig. damage	AM	Sireniki
3741	32 - 05-08-91	Zoomorphic figure	Walrus tusk	3.8 x 3.0	Insig. damage	AM	Sireniki
4289	02 - 05-25-85	Zoomorphic figure	Walrus tusk	7.5 x 2.9	Sig. damage	AM	Emmelen
6873	25 - 05-25-98	Zoomorphic figure	Walrus tusk	10.0 x 3.1	Sig. damage	EP	Yanrakynnot
5826	49 - 07-22-96	Zoomorphic figure	Wood	10.7 x 2.6	Complete	AM	Wrangel I.
2629	02m/003-02-91	Zoomorphic figurine	Wood	12.5 x 2.4	Sig. damage	AM	Kivak
4113	48 - 12-07-93	Zoomorphic figurine	Walrus tusk	9.3 x 1.4	Complete	AM	Providenskiy Dist.
6864	22 - 04-10-98	Zoomorphic figurine	Wood	6.5 x 2.0	Complete	AM	Numligran
4506	09 - 07-20-88	Bear tooth	Walrus tooth	7.8 x 2.8	Insig. damage	AM	Kivak
4212	06 - 07-20-85	Walrus tooth	Walrus tooth	3.6 x 1.3	Sig. damage	AM	Kivak
4301	02 - 05-25-85	Walrus tooth	Walrus tooth	5.9 x 2.0	Sig. damage	AM	Emmelen
2663	mo 03-02-91	Kayak, amulet	Wal. tusk, ant.	14.7 x 2.9	Insig. damage	AM	Sireniki
2816	02m/003-02-91	Scoop	Walrus tusk	11.65 x 3.3	Sig. damage	AM	Emmelen

Cult objects, small sculptures, and ornaments (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
4789	43 - 09-10-94	Ring	Cupro-nickel	2.85 x 1.0	Sig. damage	EP Avon
5279	40 - 07-27-95	Ring	Baleen	14.8 x 3.1	Sig. damage	AM Kivak
6091	86 - 11-29-96	Trough	Bone	8.2 x 3.2	Complete	AM Sireniki
6095	86 - 11-29-96	Trough	Wood	19.4 x 6.9	Insig. damage	AM Sireniki
4785	43 - 09-10-94	Smoking pipe (fragment)	Walrus tusk	6.5 x 0.8	Complete	EP Avon
2659	02m/003-02-91	Ornamental blade	Walrus tusk	22.4 x 2.5	Sig. damage	AM Avon
2761	02m/003-02-91	Boat (toy)	Wood	12.7 x 2.4	Complete	EP Enmelen
3157	37 - 10-12-93	Boat (toy, ritual object)	Wood	22.0 x 4.2	Insig. damage	AM Sireniki
2764	02m/003-02-91	Bow (toy)	Baleen	25.7 x 2.35	Sig. damage	AM Enmelen
3176	37 - 10-12-93	Bow (toy, ritual object)	Wood	19.5 x 1.0	Insig. damage	AM Sireniki
5839	50 - 07-23-96	Toy bow (fragment)	Wood	14.1 x 1.4	Insig. damage	AM Avon
2631	06 - 07-20-85	Lunar calendar (?)	Walrus tusk	25.4 x 3.4	Sig. damage	AM Kivak
5280/1	40 - 07-27-95	Rim (fragment)	Baleen	53.5 x 3.0	Sig. damage	AM Kivak
5280/2	40 - 07-27-95	Rim (fragment)	Baleen	13.0 x 2.0	Sig. damage	AM Kivak
6262	37 - 07-14-97	Drum rim (toy)	Baleen, wood	17.5 x 13.5	Sig. damage	AM Kivak
4059	25 - 06-16-93	Ritual staff	Wood	72.6 x 2.6	Insig. damage	EP Enmelen
2627	06 - 07-20-85	Decorated disk	Walrus tusk	27.3 x 4.8	Sig. damage	AM Kivak
2127	01 - 01-14-91	Pendant	Walrus tusk	11.6 x 2.5	Sig. damage	AM Sireniki
2671	02 - 05-25-85	Pendant	Deer antler	6.9 x 3.8	Complete	AM Enmelen
3279	39 - 10-26-93	Pendant	Bone	6.0 x 2.5	Insig. damage	AM Sireniki
3312	39 - 10-26-93	Pendant	Bone	7.5 x 1.4	Complete	AM Sireniki
4299	02 - 05-25-85	Pendant	Tooth	6.8 x 1.4	Sig. damage	AM Enmelen
5458	63 - 10-19-95	Pendant	Walrus tusk	2.8 x 1.6	Complete	AM Sireniki
6264	37 - 07-14-97	Pendant	Walrus tooth	3.8 x 1.0	Complete	AM Kivak
6971	46 - 09-09-98	Pendant	Walrus tusk	11.1 x 1.6	Insig. damage	AM Providenskiy Dist.
4505	09 - 07-20-88	Pendant-amulet	Walrus tooth	5.1 x 1.4	Sig. damage	AM Kivak
6647	13 - 03-20-98	Toy sled runner (fragment)	Walrus tusk	10.2 x 2.05	Sig. damage	AM Enmelen
23	01 - 05-15-85	Shaman's belt	Hid., wd., bn.	55.0 x 5.0	Insig. damage	EP Sireniki
4057	25 - 06-16-93	Shaman's belt	Hid., wd., bn.	1m50 x 6.0	Insig. damage	EP Enmelen
4766	39 - 08-30-94	Decorated object (fragment)	Walrus tusk	5.9 x 1.0	Complete	AM Enmelen
5368	54 - 10-11-95	Bird-ritual object	Wood	22.5 x 4.9	Sig. damage	EP Avon
2637/1	07 - 07-20-85	Bird-ritual object	Wood	26.6 x 6.0	Sig. damage	EP Arakamchechen
2637/2	07 - 07-20-85	Bird-ritual object	Wood	25.8 x 5.1	Sig. damage	EP Arakamchechen
6364	59 - 09-26-97	Thong	Hide	11m52 x 1.3	Complete	EP Yanrakynnot
17	01 - 05-15-85	Ritual object-part of a gyrt-gyr	Wood	12.4 x 12.1	Complete	AM Sireniki

Cult objects, small sculptures, and ornaments (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3272	39 - 10-26-93	Drum handle	Walrus tusk	17.0 x 3.1	Insig. damage	AM Sireniki
4391	01 - 05-15-85	Drum handle	Wood	14.0 x 2.5	Insig. damage	AM Sireniki
4793	43 - 09-10-94	Smoking pipe (fragment)	Wood	7.0 x 3.4	Insig. damage	EP Avon
4794	43 - 09-10-94	Smoking pipe (fragment)	Bone	6.8 x 1.1	Insig. damage	EP Avon
4795	43 - 09-10-94	Smoking pipe (fragment)	Metal	1.3 x 1.3	Sig. damage	EP Avon
4796	43 - 09-10-94	Smoking pipe (fragment)	Amber	2.75 x 0.75	Insig. damage	EP Avon
4797	43 - 09-10-94	Smoking pipe (fragment)	Metal, wood	6.6 x 1.05	Complete	EP Avon
6380	72 - 10-07-97	Smoking pipe (fragment)	Porcelain	2.3 x 3.9	Insig. damage	AM Nunligran
3140	37 - 10-12-93	Duck-like object	Bone	3.0 x 1.6	Insig. damage	AM Sireniki
3141	37 - 10-12-93	Duck-like object	Bone	4.0 x 2.0	Insig. damage	AM Sireniki
3318	39 - 10-26-93	Duck-like object	Bone	0.9 x 3.2	Complete	AM Sireniki
3319	39 - 10-26-93	Duck-like object	Bone	1.1 x 2.8	Complete	AM Sireniki
3320	39 - 10-26-93	Duck-like object	Bone	1.0 x 2.3	Insig. damage	AM Sireniki
3321	39 - 10-26-93	Duck-like object	Bone	0.5 x 3.2	Complete	AM Sireniki
3322	39 - 10-26-93	Duck-like object	Bone	2.4 x 4.1	Insig. damage	AM Sireniki
2771	11 - 09-22-89	Bird figurine	Walrus tusk	1.95 x 1.35	Complete	AM Naukan
4075	43 - 12-17-93	Bird figurine	Walrus tooth	3.4 x 1.2	Complete	AM Emmelen
4366	47 - 11-16-94	Bird figurine	Walrus tooth	3.3 x 1.2	Insig. damage	AM Naukan
6381	73 - 10-07-97	Bird figurine	Walrus tooth	3.7 x 1.7	Complete	EP Yanrakynnot
4114/1	48 - 12-07-93	Bird figurine	Walrus tooth	3.9 x 1.9	Complete	AM Providenskiy Dist.
4114/2	48 - 12-07-93	Bird figurine	Walrus tusk	5.9 x 2.4	Complete	AM Providenskiy Dist.
4780	43 - 09-10-94	Bird figurine	Walrus tooth	4.0 x 2.1	Complete	AM Avon
5357	54 - 10-11-95	Chain	Baleen	23.0 x 1.0	Insig. damage	AM Avon

## Tools for various kinds of digging

Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep.	Site
2719	02mo03-02-91	Pick-hoe	Wal. tusk, ant.	33.5 x 16.5	Insig. damage	AM	Sireniki
32	01 - 05-15-85	Pick blade	Bone	34.4 x 3.8	Sig. damage	AM	Sireniki
3360	21 - 09-25-90	Pick blade	Whale bone	47.5 x 4.7	Sig. damage	EP	Rudder
3365	21 - 09-25-90	Pick blade	Bone	18.4 x 2.9	Sig. damage	EP	Rudder
3367	21 - 09-25-90	Pick blade	Bone	20.2 x 3.2	Insig. damage	EP	Rudder
3379	21 - 09-25-90	Pick blade	Bone	26.5 x 4.3	Sig. damage	EP	Rudder
6395	81 - 11-20-97	Pick blade	Bone	34.2 x 4.0	Insig. damage	EP	Rudder
3378	21 - 09-25-90	Pick blade (fragment)	Bone	24.1 x 4.4	Sig. damage	EP	Rudder
5367	54 - 10-11-95	Pick-hoe blade (fragment)	Walrus tusk	12.0 x 2.8	Insig. damage	AM	Avan
4298	02 - 05-25-85	Pick blade for digging roots	Walrus tusk	21.2 x 2.7	Insig. damage	AM	Emmelen
4420	07 - 07-20-85	Pick blade for digging roots	Walrus tusk	23.2 x 2.1	Sig. damage	AM	Arakamchechen
122	01 - 05-15-85	Pick-mattock blade	Bone	27.3 x 7.0	Insig. damage	AM	Sireniki
5966	64 - 08-26-96	Pick-mattock blade	Bone	49.4 x 6.8	Insig. damage	AM	Arakamchechen
123	01 - 05-15-85	Pick-mattock blade (fragment)	Bone	21.0 x 5.5	Insig. damage	AM	Sireniki
2666	01 - 01-02-90	Pick-hoe blade	Bone	18.2 x 2.1	Insig. damage	AM	Kivak
3473	01 - 01-02-90	Pick-hoe blade	Walrus tusk	9.8 x 2.7	Sig. damage	AM	Kivak
4502	09 - 07-20-88	Pick-hoe blade	Walrus tusk	15.3 x 4.0	Insig. damage	AM	Kivak
4543	01 - 01-15-88	Pick-hoe blade	Walrus tusk	24.3 x 2.0	Insig. damage	AM	Emmelen
5817	47 - 07-15-96	Pick-hoe blade	Bone	21.2 x 2.8	Insig. damage	AM	Kivak
6171	22 - 04-16-97	Pick-hoe blade	Bone	22.4 x 8.35	Complete	AM	Arakamchechen
4245	07 - 07-20-85	Pick-hoe blade (fragment)	Bone	10.5 x 6.2	Sig. damage	AM	Arakamchechen
6389	77 - 11-20-97	Pick-hoe blade for digging roots	Walrus tusk	13.3 x 4.3	Insig. damage	AM	Yanrakynnot
4274	07 - 07-20-85	Pick-hoe blade for digging roots	Bone	17.3 x 2.9	Sig. damage	AM	Arakamchechen
4437	01 - 05-15-85	Mattock blade	Bone	37.0 x 4.4	Sig. damage	AM	Sireniki
6037	75 - 10-23-96	Mattock blade	Whale bone	27.3 x 9.2	Sig. damage	EP	Rudder
7040	59/1 11-10-98	Mattock blade	Whale bone	34.5 x 11.5	Insig. damage	EP	Rudder
7041	59/1 11-10-98	Mattock blade	Whale bone	33.2 x 7.3	Sig. damage	EP	Rudder
5605	16 - 02-08-96	Mattock blade for removing sod	Bone	57.0 x 6.5	Complete	AM	Sireniki
6649	14 - 03-23-98	Mattock blade for removing sod	Bone	31.5 x 9.3	Sig. damage	AM	Sireniki
4436	07 - 07-20-85	Mattock blade for removing sod	Bone	33.9 x 7.9	Insig. damage	AM	Arakamchechen
5888	55 - 08-15-96	Mattock blade for removing sod	Bone	30.0 x 6.6	Sig. damage	AM	Arakamchechen
5965	64 - 08-26-96	Mattock blade for removing sod	Bone	36.6 x 6.6	Sig. damage	AM	Arakamchechen
6282	37 - 07-14-97	Mattock blade for removing sod	Bone	73.7 x 8.1	Insig. damage	EP	Kivak
5823	47 - 07-15-96	Mattock blade for removing sod (blank)	Bone	74.4 x 6.9	Complete	AM	Kivak
6396	81 - 11-20-97	Mattock blade for removing sod (fragment)	Bone	40.0 x 9.0	Sig. damage	EP	Rudder

Tools for various kinds of digging (cont.).						
Cat. #	Accession #	Name of Object	Material	Dimensions, cm	Preservation	Rep. Site
3368	21 - 09-25-90	Hoe blade	Bone	25.6 x 6.4	Sig. damage	EP Rudder
6034	75 - 10-23-96	Hoe blade	Whale bone	15.3 x 6.7	Insig. damage	EP Rudder
2705	02 - 05-25-85	Hoe blade for digging roots	Walrus tusk	10.95 x 3.4	Sig. damage	AM Emmelen
120	01 - 05-15-85	Blade of a snow shovel	Bone	26.0 x 14.0	Insig. damage	AM Sireniki
121	01 - 05-15-85	Blade of a snow shovel	Bone	20.9 x 14.5	Insig. damage	AM Sireniki
6172	22 - 04-16-97	Blade of a snow shovel	Bone	37.6 x 12.3	Complete	AM Arakamechechen
6194	28 - 06-13-97	Blade of a snow shovel	Bone	27.0 x 14.0	Insig. damage	EP Kivak
1694	19 - 10-13-89	Blade of a snow shovel (fragment)	Bone	24.4 x 9.3	Sig. damage	AM Emmelen
4421	07 - 07-20-85	Blade of a snow shovel (fragment)	Bone	16.8 x 10.7	Insig. damage	AM Arakamechechen
4431	07 - 07-20-85	Heavy pick blade	Walrus tusk	26.8 x 8.0	Complete	AM Arakamechechen
6874	25 - 05-25-98	Heavy pick blade	Walrus tusk	39.8 x 6.6	Insig. damage	EP Yanrakynnot
6936	37 - 09-01-98	Heavy pick blade	Walrus tusk	33.4 x 7.1	Insig. damage	AM Arakamechechen
6459	04 - 01-28-98	Mattock	Antler, metal	18.8 x 15.7	Sig. damage	EP Yanrakynnot
2719/1	02mo03-02-91	Hoe	Bone	33.0 x 6.0	Sig. damage	AM Sireniki
2719/2	mo 03-02-91	Hoe	Bone	16.5 x 3.0	Sig. damage	AM Sireniki
4255	07 - 07-20-85	Pick handle	Bone	31.9 x 4.2	Sig. damage	AM Arakamechechen
1688	19 - 10-13-89	Pick-hoe handle	Deer antler	16.3 x 8.4	Complete	AM Emmelen
5436	62 - 10-19-95	Hoe handle	Bone	20.9 x 2.8	Insig. damage	AM Sireniki
7138	15 - 05-20-99	Hoe handle	Bone	28.0 x 3.0	Insig. damage	AM Sireniki
6035	75 - 10-23-96	Snow shovel	Whale bone	26.3 x 14.1	Insig. damage	EP Rudder