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Use of the Sea by Alaska Natives
— A Historical Perspective

By Karla Josephson

THE LAW OF THE SEA

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**Use of the Sea by Alaska Natives
— A Historical Perspective**

By Karla Josephson

May 1974

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707 A Street
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I wish to thank Robert N. DeArmond for his professional advice, including his assistance in furnishing invaluable photographs for this publication, and for the hospitality which he and his wife, Dale, extended to me while I was at work on this project in Juneau.

K. J.

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Cover photo: Umiak with sail among the ice floes on the Bering Sea. Reproduced through the courtesy of the Alaska State Historical Library.

Foreword

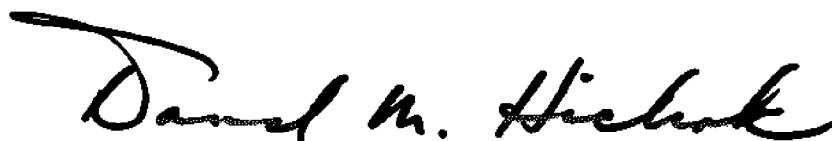
Much has been written about the aboriginal hunting and fishing patterns of terrestrial Alaska. These environmental livelihood patterns of an earlier time—together with the locations of trails, the arrangements of trade, and the history of settlement and occupations—were the essential elements of the evidence that established Native dominion in Alaska.

That historical perspective of use and occupancy by Native peoples over the lands of Alaska was brought together in a single work, *Alaska Natives and the Land*, published by the Federal Field Committee for Development Planning in Alaska in 1967. This book gave the Congress of the United States the essential rationale for a just and equitable settlement of Alaska Native land claims which were consummated in the December 1971 passage of the Alaska Native Claims Settlement Act.

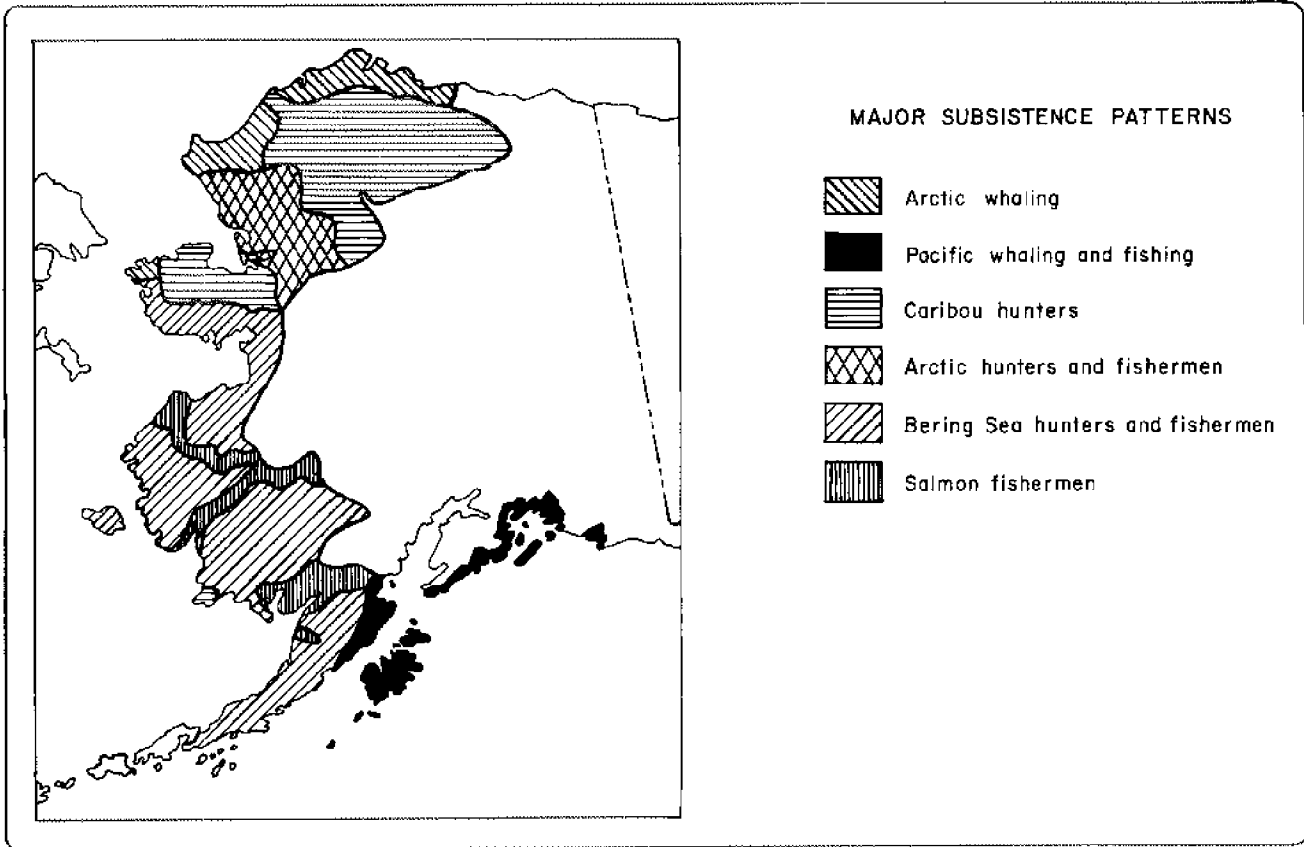
Since the time of initial western contact with Alaska, ethnographers, explorers, naturalists, traders, and missionaries have recorded aboriginal uses of the coastal waters and marine resources of Alaska's northern seas. This book by Mrs. Karla Josephson is, however, the first known compilation of these many individual writings into a single exposition on the aboriginal use and passage patterns within the two oceans and three seas bordering Alaska's shores.

It has been put together with the hopeful intent that it may serve as a historical perspective of the question of dominion exercised by Alaskan peoples over these waters.

We trust it may serve in some measure to affirm State of Alaska and United States interests in the sovereignty and widths of appropriate national and state jurisdictions on this northern maritime region bordering Alaska.



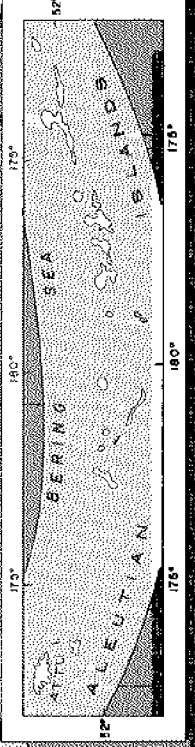
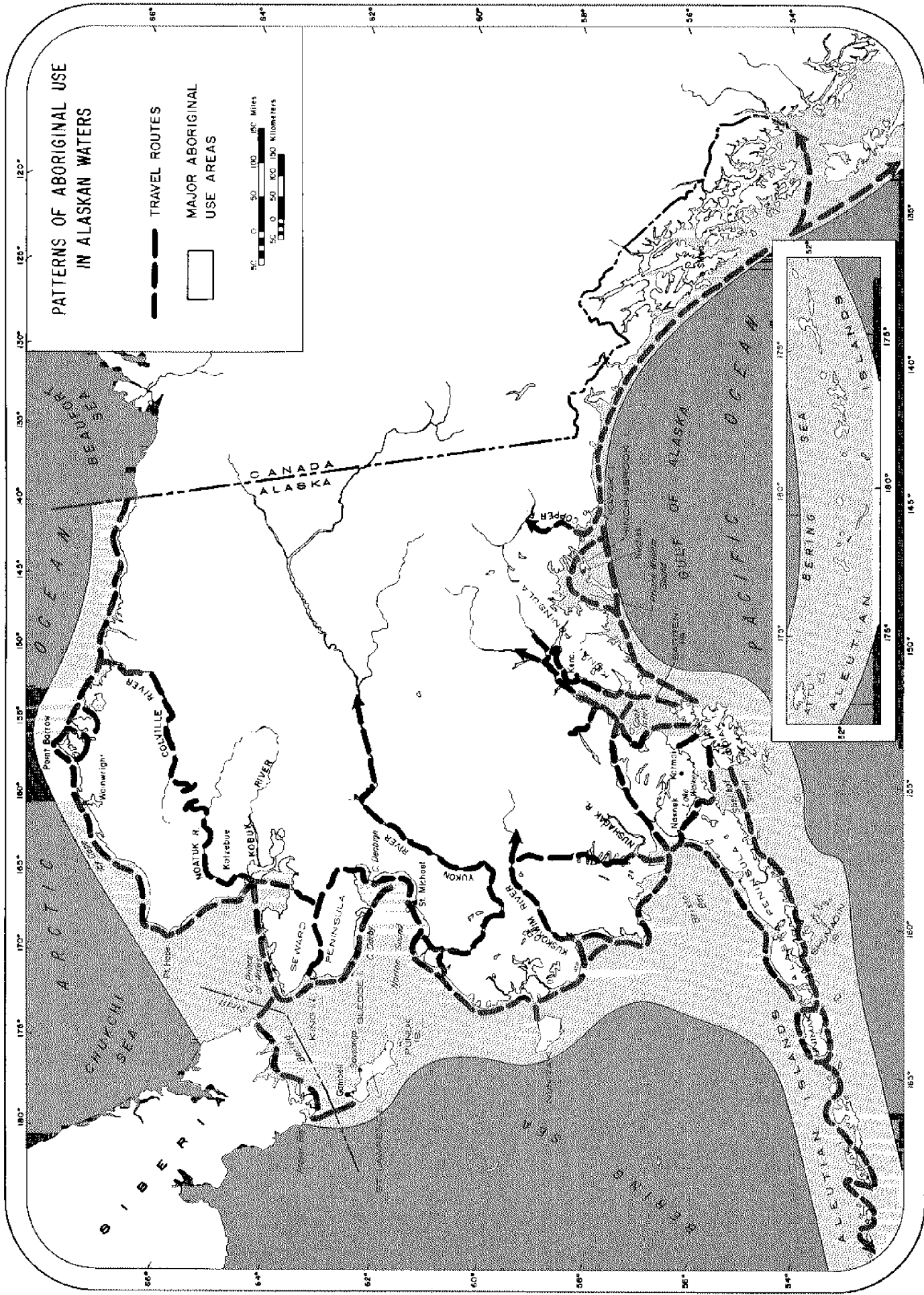
David M. Hickok
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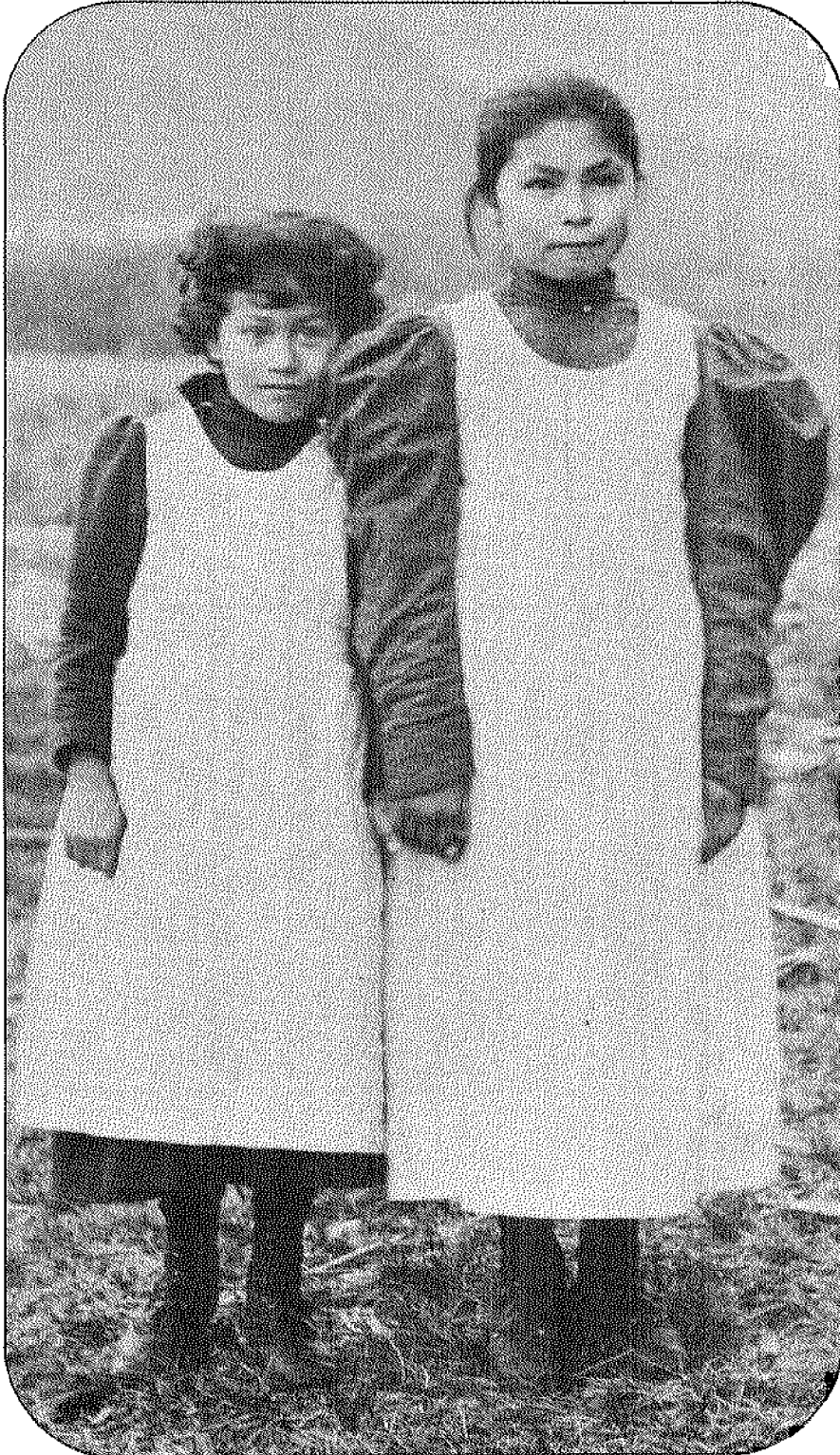


**PATTERNS OF ABORIGINAL USE
IN ALASKAN WATERS**

--- TRAVEL ROUTES

□ MAJOR ABORIGINAL
USE AREAS





Two girls of mixed Aleut and white ancestry at Unalaska. From their uniforms it is surmised they were residents of the Jesse Lee Home, a Methodist mission and school established in 1890. Alaska State Historical Library.

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Early History

People who inhabit a coastal area can command a large portion of the rich marine resources of the ocean in addition to those of the land, without leaving the shore. Each step in increasing adaptation to marine life proceeds logically with a system of increasing rewards, beginning with an initial economy based on gathering, scavenging, hunting, and fishing along the shoreline, on through the use of various kinds of boats that permit the invasion of additional ecological habitats, and culminating in the development of the skin-covered kayak, which makes possible complete and expert exploitation of the sea.¹

In prehistoric times the dense population of the Aleutians which totaled "more than the aboriginal Indian population of the Ohio Valley, or of Florida, New York State, or New England,"² utilized for subsistence all the natural possibilities that the chain of islands offered. Remaining sites of their former settlements give evidence of over 8,000 years of continuous occupation in the eastern Aleutian islands.³ Thriving communities maintained themselves on the complex coastlines simply by collecting stranded wood, meat and other foods, such as shellfish and algae, which were exposed at low tide. Their simple technology required only fishlines, hooks, fish spears, and dip nets to exploit the most easily accessible areas. Nothing

edible was missed. Contents of refuse deposits indicate that marine invertebrates were plentiful, and were used extensively for food. Even women, children and the aged provided their own subsistence. Moreover, they contributed significantly to the economy of the community by securing large amounts of food in the intertidal zone. Salmon, although available only four months of the year, were abundant in season and simple to catch. Laughlin surmises that there was comparatively low infant mortality and a comparatively high proportion of elderly among these early people.⁴

Aleut hunting and fishing methods have considerable depth in time.

Whether halibut were caught with a compound fishhook whose shank was made from a seal rib (late style) or from an elbow-shaped piece of whale-bone (earlier style) appears to have made no difference in the number of halibut caught.⁵

There are any number of ways by which animals may be killed and fish caught.

To sample the deeper halibut and cod zones, the marine hunter had only a short distance to go. Simple umiaks opened the way to exploitation of offshore islands, which were a source of birds and eggs, in addition to invertebrates and stranded mammals. It is

1. W.S. Laughlin. "Human Migration and Permanent Occupation in the Bering Sea Area," *The Bering Land Bridge*, ed. D.M. Hopkins (Stanford, California: Stanford University Press, 1967) p. 423.

2. Henry B. Collins, Jr.; Austin H. Clark; Egbert H. Walker, *The Aleutian Islands; Their People and Natural History* (Washington, D.C.: Smithsonian Institution Publication [War Background Studies no. 21], 1945), p. 2.

3. Laughlin, *op. cit.*, p. 411.

4. *Ibid.*, p. 427.

5. *Ibid.*, p. 440.

possible that the earliest coastal inhabitants of the land bridge had developed kayaks.⁶ To harpoon the transient sea mammals (fur seals and whales entering Bering Sea by passing between the islands) and the resident sea mammals (sea otter and harbor seal and sea lions) on the high seas required speed and maneuverability. The kayak could be operated in stormy seas and launched into surf that ordinarily would prohibit the use of umiak. The kayak was by far the most maneuverable and portable means by which one man could hunt and retrieve almost any sea animals available.

A remarkable degree of economic security was achieved through the use of all available resources. The productive phase was marked by individual activity, the distributive phase by cooperation. Every man was capable of securing his own sea lions, but every sea lion catch was shared throughout the village. While two men might choose to travel together to any given hunting place for company or safety, on arrival each man hunted on his own. Dall describes it for a later time:

It is the custom of the Aleutians for the successful hunter or fisher, particularly in times of scarcity, to share his prize with all, not only taking no larger share, but often less than the others; . . . All those in need of assistance hasten to meet the returning hunter at the landing, and sit down silently by the shore. This is a sign that they ask for aid . . .⁷

No people were ever more dependent on the sea than the ancient Aleuts. They fashioned clothing from sea mammal and bird skins. Aleuts located their villages on the open seacoasts where they could observe far out to sea. The interior of the islands was completely unoccupied and seldom visited. The choice of village site was governed also by the need to have fresh water and a good landing beach for boats, as well as a situation offering safety from surprise attack. So villages were often situated on a strip of land between two bays which allowed for the carrying of skin boats from one

body of water to another in case of attack. It was only after the arrival of the Russians that villages were located at river mouths where salmon were available.⁸

Hunting and Fishing

The varied Aleut fishing technology included fish spears, weirs, and hooks and lines for fishing. The most common varieties of fish were several sorts of salmon, cod, herring, and halibut.

These people are very expert in striking fish, both in the sea and in rivers. They also make use of hooks and lines, nets, and weirs. The hooks are composed of bone, and the lines of sinews.⁹

Other lines are described by Tolstykh as "about 150 fathoms long, made of sea-weeds, as thick as an ordinary iron wire and twice more enduring than a hemp cord."¹⁰ Herring, salmon and anadromous trout and char were caught in nets. Salmon and anadromous trout and char and Atka mackerel were speared as were octopi. For catching smaller fish, such as sculpin and flounders, a small rounded hook made from a single piece of bone or shell was used. Smelt were scooped up in dip nets or pails or simply picked up on the beach as they came to spawn in the surf. Jochelson tells us that seines were adopted from the Russians but that lines and dams were known to the Aleuts before their meeting with the Russians.¹¹

Birds and eggs formed an important part of the Aleut's summer diet. They were caught in baleen and sinew snares and in nets and included gulls, loons, ducks, geese, murre, and cormorants.

6. *Ibid.*, p. 425.

7. William H. Dall, *Alaska and Its Resources* (Boston: Lee and Shepard, 1870), p. 392.

8. Collins, Clark and Walker, *op. cit.*, p. 21.

9. James Cook, *Captain Cook in Alaska: His own Story*, ed. and annot. Melvin B. Ricks (Los Angeles: 1955), p. 178.

10. Tolstykh as quoted by Waldemar Jochelson, *History, Ethnology and Anthropology of the Aleut* (Oosterhout N.B., The Netherlands: Anthropological Publications, 1966), p. 11.

11. *Ibid.*, p. 51.

Aleuts paddled their fragile craft through the world's roughest water in pursuit of the whale, killing the prey with a poisoned, stone-bladed lance. Two kayaks usually went out together, so that if one were overturned by the violent thrashing of the wounded whale, the other could come to the rescue. The lance head with its poisoned blade became detached from the shaft after the spear was cast, and remained in the whale's flesh, causing it to die after about three days. It was necessary only to cut away the flesh immediately around the wound to eliminate any danger from the poison. Turner's descriptive account of humpback whaling follows:

In former years the head or point of the whale-spear was made of slate, but of later years it has been discarded, and the point is shaped from a portion of the side of a beer or thick wine bottle, the former being considered the better adapted, as the glass is brittle and more easily fashioned into the required form . . .

The hunter usually selects some young boy, of about sixteen years, to accompany him on the search for these creatures. A two-holed kaiuk is used, the boy acting as the propelling power when the prey is sighted, and on him depends much of the success of the hunter, who is of course the teacher of the boy as to the method to be pursued. The boy obeys implicitly all instruction; and, as the quest of whale is attended with much privation, they often undergo considerable suffering before one is struck.

The conditions of the weather are noted, for neither a gale nor a calm is ventured in, the latter enabling the Whale to observe the approach of the hunters, while a gently undulating sea is preferred for that reason. When a Whale is sighted the occupants of the canoe approach, with the least possible noise, and when near the place, where the Whale is expected to rise, the hunter lays aside his paddle and takes his spear in hand,

and with it directs the boy where to proceed. As soon as the Whale rises the hunter launches the spear into the side of the creature, and the canoe is instantly urged backward out of the splash made by the plunge of the Whale. The motion of its body breaks off the brittle head of the spear, and each movement of the victim tends to drive the piece of glass deeper into its flesh until some vital spot is touched; the whale then sinks to the bottom, where it is supposed to remain for three days, when the gases, generated by decomposition, cause it to rise to the surface, and in course of time, it is drifted to the shore. Persons are sent from the village to scan the sea for the floating carcass, or to search the coves, reefs, and bays for the stranded body.

The number of whales procured in this manner may amount, at Iliuliuk, to as many as fifteen in a single summer. In the summer of 1879 no less than seventeen were struck, and about three became available to the people; the currents, and winds often carrying them far beyond the place where struck.

It was related to me that a whale carcass has been found on Unalashka Island that had a spearhead sticking in it, which had been thrown by a Kadiak native whaler; and the body had drifted nearly 600 miles in a west-southwest direction.¹²

The effect of sea mammals on the culture and life of the natives was direct and powerful, for it brought about the development of a race of sea hunters, with great refinements of the skin boat and hunting weapons.

"Their time is accordingly no less devoted to making their canoes and oars, their spears, javelins, fishinglines and hooks, than to the employment of these things when made."¹³

The rich sea mammal hunting technology included throwing boards, which were used to propel a variety of harpoons to secure sea mammals.

12. L.M. Turner, *Contributions to the Natural History of Alaska* (Washington: Government Printing Office, 1886), pp. 200-201.

13. Langsdorf (1814, 41, 46, 47) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants, op. cit.*, p. 114.

"Their darts are adapted with the greatest judgment to the different objects of the chase; for animals, a single barbed point; for birds, there are three points of light bone, spread and barbed; for seals, etc., they use a false point, inserted in a socket at the end of the dart, which parts on the least effort of the animal to dive, remaining in its body. A string of considerable length is fastened to this barbed point, and twisted around the wooden part of the dart; this serves as a float to direct them to the seal, which, having the stick to drag after it, soon tires, and becomes an easy prey . . . The boards used in throwing these darts are equally judicious, and enable the natives to cast them with great exactness to a considerable distance."¹⁴

Before the acquaintance with fire arms there were very few two-hatched skin-boats. The Aleut hunted by throwing darts; while throwing a dart with the right hand the boatsman kept the skin-boat in equilibrium by putting the paddle across the boat and pressing it against the railing with the left hand. After fire arms came into use, two-hatched skin-boats became necessary for hunting, as the gun recoils and might capsize the light skin-boat. While one hunter is firing, the other keeps the boat up-right.¹⁵

Aleut sea mammal hunters used nets of heavy sinew in addition to the darting method. The diamond-shaped mesh was large enough to admit a sea otter's head. The nets were taken to kelp beds, to cavelike recesses in the shore, and to large reefs where the otters were in the habit of resting during long periods of stormy weather.

After a storm, when the otters were exhausted, hunters would go to reefs and kelp patches, approach tired otters which were often lying with their heads pushed under or into the kelp, and strike them with short wooden clubs.

The mode of hunting the sea-otter is different, and the prey so sure, that scarcely one animal out of a hundred can save itself from its pursuers. The method is this. A number of Aleutians, more or less, go out

together in separate bidarkas (kayaks). As soon as any one of them perceives, an otter, he throws his arrow at it, if he can, and, whether he can or cannot, pulls to the place where it plunges. He here stations his boat, and then lifts up his oar. The rest of the hunters, on observing the signal, form a circle round it. The moment the animal appears above water, the hunter that is nearest throws his arrow, and then hastens to the spot where the animal replunges, and makes it known, as in the preceding instance, by raising his oar. A second circle is then formed; and in this manner the chase continues, till the poor beast is perfectly exhausted by the blood flowing from its wounds. I was told by very expert hunters, that these animals were sometimes easily caught; whereas, at other times, twenty bidarkas would be employed half a day in taking a single otter; and that this animal has been known to tear the arrow from its body in order to escape.

When these hunters attack a female otter, swimming with her young one, a picture of maternal affection presents itself, that would induce a feeling mind to desist from its cruel purpose: but a Cadiack man, hardened to his trade, has no frailties of this kind, and can pass nothing without darting his arrow at it. When she finds herself pursued, the poor mother takes her cub in her arms, if I may so speak, and plunges with it, to save it. As the cub, however, cannot long remain under water, she soon, instigated by affection, rises again, and is easily struck by the weapons of the hunters. Sometimes the hunters come upon her by surprise, and separate her from her young one, in which case her loss is inevitable, for the cub is sure to be taken; and when she hears its cries, she swims, fearless of danger, to the very bidarka from which they proceed.

The Cadiack people, exercised from their childhood to this sort of hunting, are very expert at it. In fine weather, they know the course of the otter under water, after it has plunged, by the bubbles that appear on the surface; and in rough weather they are equally acquainted with it, as the otter always swims against the wind.¹⁶

14. Sauer (Unalaska 1802, 157) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 129.

15. Jochelson, *op. cit.*, p. 55.

16. Urey Lisiansky, *A voyage round the world in the years 1803, 4, 5 and 6; performed, by order of his Imperial Majesty Alexander the First, Emperor of Russia, in the Ship Neva*, (London: S. Hamilton, Weybridge, Surrey, 1814), pp. 203-4.

Uses of the Products of the Sea

"Next to fishing, their most important occupation is hunting the sea dog (*phoca-vitulina*) [seal], this animal indeed forms such an essential article to the subsistence of the Aleutians in a variety of ways, that it may truly be said they would not know how to live without it. Of its skin they make clothes, carpets, thongs, shoes, and many household utensils; nay, their canoes are made of a wooden skeleton with the skin of the sea dog stretched over it. The flesh is eaten and of the fat an oil is made, which, besides being used as an article of nourishment, serves to warm and light their huts. The oesophagus is used for making breeches and boots, and the large blown-up paunch serves as a vessel for storing up liquors of all kinds. Of the entrails are made garments to defend them against rain, and they also serve instead of glass to admit light into the habitations; the bristles of the beard are used like ostrich feather in Europe, as ornaments for the head: there is consequently no part of the animal that is not turned to some use."¹⁷

All of the necessities of life used by the Aleuts were products of their environment. Most products came from the islands occupied by the Aleuts, although some were obtained from other parts of the chain and a few even from the Alaska Peninsula. Again, nothing was wasted. The most important materials came from animals killed in hunting—fur, skin, gut, sinew, bone, teeth, ivory, claws, baleen, occasionally shell.

Aleuts were primarily sea mammal hunters who lived on the flesh of seal, sea lion, and whale. Their diet was supplemented with shellfish, birds, fish, roots, and berries. Sea urchin spines were rubbed off, and the shell was broken between two stones to obtain the masses of bright yellow eggs, the only edible part of the sea urchin.

"Fish caught in summer as well as in winter is eaten with great greediness . . . sometimes cooked, but more often raw, as is true with meat. Fish is dried in the sun for future use."¹⁸

Petroff estimates that the total population of 1,400 Aleuts existing in 1880 consumed 700,000 pounds of fresh fish each year.¹⁹

In the case of both western Kodiak and the Aleutians, driftwood was the only wood available. The best note is provided by Langsdorf:

"The wood for building the earth huts, and for making the skeletons of the canoes, the oars, the javelins, and other purposes, is only obtained from the sea, and collected by the inhabitants along the coast. Large trunks of valuable trees from America and the islands of the South Sea, among others of the camphorwood, probably from Japan, are often floated hither."²⁰

Women were as skillful in their areas of endeavour as the men. In the summer they cleaned and dried fish and collected berries and roots for winter. Theirs was the laborious and difficult task of making the skin garments, from the cleaning and preparing of the skins to final sewing. The method of sewing rain garments, which were made from the entrails of seals, was very different from that of sewing men's clothing, which was made from the skins of puffins, cormorants, or murre. The task of putting together the skins which covered the baidars and baidarkas was of still another nature. Women's garments were made of sea otter or sealskins. Little children's parkas were of young eagle skins. Tendons of whales, which when exposed to water swelled and rendered seams impenetrable, were used as thread. When hunting at sea or walking in rainy weather, Aleuts wore the light waterproof garment called the "kamleika" over the parka. It was made of "the intestines of sea animals, the bladder of the halibut or the skin off the tongue of a whale."²¹

"Thus clothed, any one may be out for a whole day in the heaviest rain, without

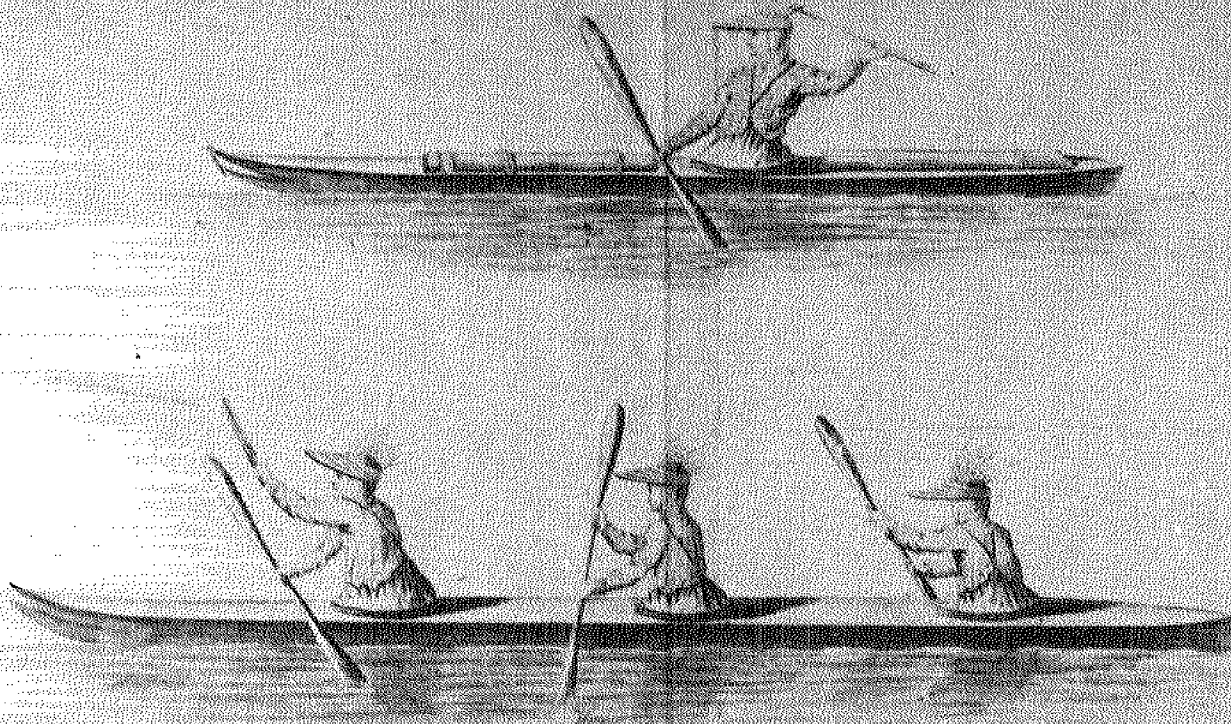
17. Langsdorf (1814, 33-4) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 138.

18. Tolstykh as quoted by Jochelson, *op. cit.*, p. 11.

19. Ivan Petroff, *Report on the Population, Industries and Resources of Alaska*, (Washington: Government Printing Office, 1884).

20. Landsdorf (1814, 31) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 96.

21. Sauer (1802, 155) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 72.



Aleuts in their baidarkas. Drawing is from the atlas of the "Voyage of Discovery" by Gavril Sarychev, published in 1802. Alaska State Historical Library.

finding any inconvenience, or being wetted in the slightest degree."²²

Boats and Their Uses

The kayak in its highest state of evolution and in skillful hands is perhaps the most seaworthy of all primitive small craft.²³

Rocky points extending to the water along the beaches and the soggy tundra in the interior discouraged the Aleuts from being anything but thoroughgoing boatmen. They depended upon the sea for all necessities of life and upon boats as the method of transportation for acquiring them. These marine hunters were horizon hunters, scanning for the interrupting outline of sea mammals. They were able to navigate out of sight of land and in fog.

"The sight of the Aleuts is always good and contrasted with that of the Russians incomparably better, so that for instance when a Russian barely notices something on the sea, the Aleut already sees what it is; if it is a little boat he can already discern whether it is that of one or two individuals; and when the Russian sees the boat, the Aleut has already recognized the paddlers... Measurement by the eye in the Aleut is also very good. On the sea when there are waves they always are able to estimate the fall and the swiftness of the waves, and to distinguish ordinary waves from those over shallows or under-water rocks. For this reason hunting sea otter in the sea is possible only for the Aleuts... while the Russians, however apt they may make themselves with the small native boats, can never be sea otter hunters."²⁴

No metal was used in the construction of the skin boats. The cover of the frame and all its parts were tied together with sealskin thongs, giving the boat a high degree of pliability and,

22. Langsdorf (1814, 36) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 74.

23. Edwin Tappan Adney and Howard I. Chapelle, *The Bark Canoes and Skin Boats of North America* (Washington: Government Printing Office, 1964), p. 180.

24. Veniaminov (1840, II, 13) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 487.

therefore, shock resistance. The Aleut kayak was developed over long periods of trial and error and became the best form of hunting canoe.

"The American boats are about two fathoms long, two feet high, and two feet wide on the deck, pointed towards the nose but truncate and smooth in the rear. To judge by appearance, the frame is of sticks fastened together at both ends and spread apart by crosspieces inside. On the outside this frame is covered with skins, perhaps of seals, and colored a dark brown . . . About 2 arshins (4'8") from the rear on top is sewn [a strip made of] whale guts having a hollow hem with a leather string running through it, by means of which it may be tightened or loosened like a purse. When the American has sat down in his boat and stretched out his legs under the deck, he draws this hem together around his body and fastens it with a bowknot in order to prevent any water from getting in . . . The American puts his right hand into the hole of the boat and, holding the paddle in the other hand, carries it thus because of its lightness on to the land anywhere he wants to and back from the land into the water. The paddle consists of a stick a fathom long, at each end provided with a shovel, a hand wide. With this he beats alternately to the right and to the left into the water and thereby propels his boat with great adroitness even among large waves." 25

"A good new-made and well-oiled leather canoe in fair and calm weather, or with a moderate wind, may remain constantly in the water 12 or 14 days, without being injured, but if the weather be stormy, not more than six days at the utmost, as the seams of the leather are apt to give way, and let in the water. To keep the baidarkas in good condition, they should be drawn out of the water after every voyage, and laid to dry upon the shore . . . In my opinion, these baidarkas are the best means yet discovered by mankind to go from place to place, either upon the deepest or the shallowest water, in the quickest, easiest, and safest manner possible. I do not speak here of great

voyages, though the Aleutians will go in them from Kodiak to Sitka, that is, from latitude 57°, longitude 152°, to latitude 56°, longitude 135°." 26

When the sea became extremely rough the Aleuts bound several baidarkas together, placing bladders between the boats to keep them from dashing against each other, and rode out the storm. 27 Bladders also were used, with the additional support of assisting craft, to support a leaking boat while the owner smeared animal fat, which he always carried with him, on the inside and outside of the leak.

"In going to a faraway island the Aleuts, when they lost sight of land, employed (as markers) whitened sea lion bladders, which they anchored with, or to which they tied on a long rope, a stone, dropping them so apart that they could see from one to the other." 28

Boys of six were so well trained in the use of the baidarka that no wave could overturn them, if they saw it coming and were equipped with their paddle.

According to Veniaminov (II, p. 220), in former times the Aleut boats were even better than they are now; they were so light that a boy seven years old could carry them from one place to another; . . . of such a speed that 'birds were not able to leave them behind'. The Aleut may in one hour travel in their skin-boats about ten versts (6.6 miles). No wooden boat is able to keep up with them, and they may overtake a ship which makes four miles an hour. 29

"The endurance of these people is wonderful; they propel their boats for ten to twelve hours, making at most a stop of a few minutes to take a swallow of water." 30

"Formerly the Aleut used only a one-hatched bidarka . . . for sea-going; the two-hatched boat was used only for transporting light freight or for sea-going of an old man with a small boy. It was regarded as a disgrace when young and healthy men started hunting sea-otters in a two-hatched bidarka . . . these boats are very

25. Steller as quoted by Frank A. Golder, *Bering's Voyages*, Vol. 2 (New York: American Geographical Society, 1925), pp. 95-96.

26. Langsdorf (41-44) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 125.

27. Sarytschew, Gawrilla, *Account of a Voyage of Discovery to the North-east of Siberia, the Frozen Ocean, and the North-east Sea*, Vol. II (London: J.G. Barnard, 1807), p. 57.

28. Veniaminov (II, 303) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 471.

29. Jochelson, *op. cit.*, p. 25.

30. Blaschke (97-99, 101) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 206.

long, narrow and low, extremely light and speedy."³¹

"The baidars, or boats, on Oonalashka, are infinitely superior to those of any other island. If perfect symmetry, smoothness, and proportion, constitute beauty, they are beautiful; to me they appeared so beyond anything that I ever beheld. I have seen some of them as transparent as oiled paper, through which you could trace every formation of the inside, and the manner of the natives' sitting in it; whose light dress, painted and plumed bonnet, together with his perfect ease and activity, added infinitely to its elegance. Their first appearance struck me with amazement beyond expression. We were in the offings, eight miles from shore, when they came about us. There was little wind, but a great swell of the sea, some we took on board with their boats; others continued rowing about the ship. Nearer in with the land we had a strong rippling current in our favour, at the rate of 3 miles and a half, the sea breaking violently over the shoals, and on the rocks. The natives, observing our astonishment at their agility and skill, paddled in among the breakers, which reached to their breasts, and carried the baidars quite under water; sporting about more like amphibious animals than human beings."³²

Should there be surprise that the men were physically changed by spending a dozen hours at a time in a boat, day after day? The men and their crafts had become inseparable units.

The habit of constantly sitting in their bidarkas, which are very contracted, has given most of them a stoop, and their legs are usually ill formed.³³

When one of these Aleutians thus arrayed is seated in his baidar, there is something majestic in his appearance; but when he rises, he cuts a deplorable figure; and when he walks, he looks still more wretchedly, being disabled by continual sitting from straightening his feet or knees.³⁴

Before the arrival of Russians there was

frequent warfare between the Aleuts and neighboring tribes, as well as among the Aleuts themselves. Aleut war parties went as far as the Nushagak River on Bristol Bay to attack the Aglemiut Eskimos, and made frequent raids against the Eskimos on Kodiak Island. The Unimak Aleuts fought with those on the Shumagin Islands, the Alaska Peninsula, Unalaska, Akun, Akutan, and Umnak. There were also conflicts between the Unalaskans and the people of Unalga, Umnak, and some of the more westerly islands. Severe losses were incurred by all.

"Of old, before there commenced among them enmities and internecine dissensions, they, impelled by love of fame, used to explore eastward and westward, to learn to know other nations and their habits, and to show themselves to them: and on one such voyage they succeeded in reaching the northernmost point of America, to which they gave the name of *Kigaditigan kamga*, i.e., "*northern head*"; and on their return home they told that there everything was icy – the products of the ground, the dwellings of the people, and even the people themselves, who fear warmth as much as we do polar frosts, and during solstice will not leave their dwellings for fear of melting.

"Later on the objects of such trips gradually changed, and, instead of to learn *peoples' habits*, they commenced to go for trade, and still later – for loot and piracy, i.e., to *war* on others."³⁵

"Wars, or more justly, killings and pillage, existed among the Aleuts nearly always. Particularly among the Aleuts of the later former times, i.e., grandfathers and great grandfathers of the present generation, wars were extraordinarily frequent and most destructive. They were either *internecine* or *foreign*." The former were between families or groups of the same people; the others were with outside enemies, the Aglemiutes (Eskimo) and the Kadiaks.

"The causes of the internal wars were innumerable . . . A handsome wife, a comely daughter, were always and everywhere

31. Veniaminov (II, 219-228) as quoted in Jochelson, *op. cit.*, p. 24.

32. Sauer (1802, 157) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, pp. 123-4.

33. Dall, *op. cit.*, p. 386.

34. Sarytschew, *op. cit.*, p. 9.

35. Veniaminov (II, 272-5) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 143.

among the most potent causes of discord... Their second cause was the unfavorable, and steadily growing worse, nature of the islands they inhabited, as to the means of existence... Stones (obsidian, porphyry), from which they made their little axes, knives and arrow or dart points, were found in but a few places -- the last only on the northern side of Umnak, and better amber also only on the northern side of Umnak, under a certain waterfall; and as not everyone could buy or give something in exchange (for these materials), a good many tried to get them secretly. For this the owners of these places, from the right of ownership, watched over them and used to kill the poachers." Another great cause was vengeance and blood feuds. "Internecine wars, begun among members of and ended only by complete annihilation, i.e., slaying and pillaging of the weakened side."³⁶

"With the Aglemiutes wars were carried on only at first, after which they rapidly diminished, for the reason that the Aglemiutes did not dare to come to Unalaska in their baidarki (which were much inferior to those of the Aleuts). The Aleuts shortened their attacks on them because the northern shores of the Peninsula are shallow and without harbors, but in the main because they are poor in means for provisioning.

"With the Kadiaks, however, there were from time immemorial ceaseless wars. The Aleuts regarded them as inveterate enemies, so that the term used for enemy was *Kanagik* (inhabitants of Kadiak).

"Foreign wars, or military expeditions, were regarded by the Aleuts as sport and as undertakings both profitable and bringing renown."³⁷

The people of Port Moller and Oogashik are of the Aleutian tribe, which in former years made warlike expeditions along this coast, extending as far to the northward as the Naknek river and lake Walker. At the village situated on one of the feeders of the latter lake the present inhabitants still tell the story of the night attack made by the

'bloodthirsty' Aleuts long years ago, when every soul in the place was dispatched without mercy, with the exception of one man, who hid himself under a waterfall close by, and thus survived to tell the tale.³⁸

For transporting women and children from island to island the Aleuts had umiaks; large, open skin boats with a light wooden frame covered with skins of sea lions and equipped with oars. These were thirty feet long and nine feet wide, and could carry twenty people or a corresponding amount of freight.³⁹ Possession of these was transferred to the Russians upon their arrival and at their insistence.

Russian Arrival

"I have seen the Russian Promusclinicks, or fur-hunters, sport with the lives of the natives, and put these defenceless creatures to a horrible death, from the mere caprice of their own arbitrary will." (Langsdorf as quoted in Lisiansky).⁴⁰

Lisiansky wrote:

In my opinion, the greatest cause of complaint on the part of the poor Aleutians, is the severe hardships they have to endure in the long voyages they are obliged to perform in their small canoes in the business of hunting.⁴¹

The difference between the statements of Langsdorf and Lisiansky reflect the passage of time.

When the Russians reached the Aleutians in the 1740s, practically every island was inhabited. Agattu was reported to have had thirty-one villages, Unalaska had twenty-four. By 1831, only fifteen of the islands were inhabited and the total population was less than

36. Veniaminov (II, 93-5) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 144.

37. Veniaminov (II, 98) as quoted in Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 145.

38. Ivan Petroff, *op. cit.*, p. 24.

39. Jochelson, *op. cit.*, pp. 55-57.

40. Langsdorf as quoted in Lisiansky, *op. cit.*, p. 215.

41. Lisiansky, *op. cit.*, p. 215.

2,000--the impoverished, depressed remnants of a population once ten times as large.

"Old men relate that a long time ago, before the arrival of the Russians, the inhabitants of Oonalashka district were so numerous that every island and every convenient location was settled, and that in every village were from 40 to 70 bidarkas, with as many adult males able to propel a bidarka; and if we add to these as many females, and twice as many children and old men, it follows that every village contained from 150 to 280 souls, or an average of 215. From personal observations and from tales of the Aleuts I must suppose that in this district 120 villages were located, and thus supposing that each village contained a nearly equal population, it seems that the inhabitants of the Aleutian Islands in their best times numbered 25,000. Doubtless this number is somewhat large, but as far as we can trust to the accounts of the Aleuts, as well as of Russians who lived here at the end of the last century, and who saw with their own eyes the destruction of many villages, it seems very probable that the number of the Aleuts once reached twelve or fifteen thousand." 42

Hrdlicka, among others, feels that an estimated population of 15,000 is too low. 43

The Bering expedition returned to Russia in 1742 with its 900 sea otter skins to tell of vast herds of fur animals in the North Pacific. News spread rapidly, and soon the promyshlenniki (fur hunters of Siberia) were stampeding in a manner almost equalled by the Klondike gold rush a little more than a century later. On their own account and at their own risk--the imperial authority not extending beyond the Siberian mainland--the promyshlenniki pursued their obsession for furs. They were not seafaring men. They knew nothing of navigating, and their loss of boats in the beginning is estimated to have been more than one out of three.

There was no cohesion among the inhabitants of the islands at the time the Russians arrived and, while the newcomers were forcibly opposed in places and even destroyed, their superior arms and the diseases that they brought with them soon decimated the native Aleuts. Whole villages were burned and the inhabitants were exterminated.

"The Aleuts say that the Russians shot many of their number with their muskets only for sport, using them as targets, but others deny this; but it certainly occurred more than once, at least in this district, and particularly in the village of Koshigin. It was Solovief who conceived the idea of ascertaining how many human bodies a bullet would pierce, and to this end he ordered 12 Aleuts to be tied together (who were probably not altogether guiltless), and shot at them with a rifle. It is said that the bullet lodged in the 9th man... after many single wanton murders he finally found the inhabitants of several Oonalashka villages assembled on Egg island, Sprikin, and fortified. The second attack of Solovief was successful, and he destroyed all the besieged Aleuts, with their wives and children. This slaughter was so general that the sea in the neighborhood was covered with blood from the dead and wounded thrown into it.

"... it would seem that the number of Aleuts slain by Solovief, according to Davidof, is not exaggerated; he places it at 3,000, and even the murder of 5,000 mentioned by Sarychef as that of Aleuts murdered by the Russians, is not without probability. Sarychef calls it a moderate estimate." 44

One finds inconceivable the statements of Berkh and Cook:

A peaceful citizen, friend of humanity, after reading these lines will feel indignation against brave Solovief and perhaps will call him a barbarian and a destroyer of human lives. But will he not change his opinion if he will know that after this lesson, the inhabitants of the Aleutian Islands did not dare to attack Russians any more? Will he not agree that this measure was necessary for the safety of the future travelers? 45

If there were severities inflicted at first, the best apology for them is that they have produced the happiest consequences, and at present the greatest harmony subsists between the two nations. 46

42. Petroff, *op. cit.*, p. 148.

43. Hrdlicka, *The Aleutian and Commander Islands and their Inhabitants*, *op. cit.*, p. 32.

44. Veniaminov as quoted in Petroff, *op. cit.*, p. 150.

45. Vasilii Berkh. *The Chronological History of the Discovery of the Aleutian Islands or the Exploits of the Russian merchants*, trans. Dimitri Krenov (Seattle: WPA Project No. 5668, 1938), p. 57.

46. James Cook, ed. and annot. Melvin B. Ricks, *op. cit.*, p. 171.

Hunting and Fishing

Kodiak offers an almost temperate climate, an intricate coastline and easy access to the open sea. Shellfish are readily available throughout the year. Bays offer ideal conditions for sea mammals, as do the streams for spawning salmon. Archaeological sites date back to 3500 B.C.⁴⁷ and indicate temporary inland residence along the major salmon streams. The sites would have permitted various trap, weir, spearing, and dip netting arrangements. Of special importance was the fact that the ancient people of Kodiak were situated at a North Pacific crossroads where they were exposed to ideas from Aleuts, Indians, and other Eskimos. Early residents of Kodiak used bone hooks, stone anchors and sinkers, dart throwers and darts, spears, bone or stone clubs and, of course, the skin boats.

Fish in the rivers are caught, either with the hands only, or by bags tied to a long pole. Sometimes they are taken by being struck with a spear about five feet long, made for the purpose . . . At sea it is done by hooks made of bone, which are fastened, instead of a line, to a sea-leek, that grows sometimes to a length of nearly two hundred feet, and is the eighth of an inch thick.⁴⁸

They caught turbot (flounders or possibly halibut) with a wooden hook, for codfish the hook consisted of two bones one longer than the other, tied to each other, at an angle of about 45 degrees, with whale sinews . . . The longer segment was connected, by the means of a cord about a foot long with the end of a stick, to the other extremity of which was tied twice as

long a cord with a sinker (usually a round stone). To the middle of the stick was tied the fishline, and the whole apparatus was allowed to sink to 50 or 60 fathoms, or until the sinker touched the bottom . . .⁴⁹

Birds were caught for food and clothing by means of nets or special darts or arrows. Snares and bolas are not reported for this area.⁵⁰

Sea mammal hunting, particularly hunting of hair and fur seals, vied with the salmon fishery and sea fishery for first place among economic activities. Seals were clubbed while asleep on shore, caught in nets, harpooned from kayaks, or caught close to shore through the use of decoys.

The Kodiak people use long spears, harpoons, and arrows, for killing the large sea animals, such as whales, seals, sea-otters, and others. The whale harpoon is about ten feet long; the spear or point is of slate stone, and of the form of a knife, sharp on both sides, and is set loose into the handle. The seal harpoon is but little shorter, and has a barbed spear made of bone. A bladder is fixed to the middle of the handle, to prevent the harpoon from sinking, or the seal from plunging beyond a certain depth after being wounded by it. There is also a particular sort of arrow used against the seal . . . nearly similar to that used against the sea otter . . . the length of which is about four feet. The arrows are thrown from a narrow and pointed board, twenty inches long, which is held by the thumb and three fingers . . . They are thrown straight from the shoulder with astonishing velocity . . .⁵¹

47. Wendell H. Oswalt, *Alaskan Eskimos*, (San Francisco: Chandler Publishing Company, 1967), p. 245.

48. Lisiansky, *op. cit.* pp. 205-6.

49. Donald Woodforde Clark, *Koniag Prehistory*, PHD Thesis (Madison: University of Wisconsin, 1968), p. 265.

50. *Ibid.*, p. 263.

51. Lisiansky, *op. cit.*, p. 206.

"Hair seals are caught by the use of decoys made of the same animal and blown up This is set up on the beach where it is covered with water at high tide and is dry at low tide and where these animals haul out. The hunter sitting behind the decoy, wearing a wooden cap, resembling the head of the hair seal . . . shouts imitating the hoarse voice of such animal 'UVA'. At the approach of the animal to the decoy, he throws his spear attached to a cord ten fathoms long, with which he drags the wounded animal ashore, then kills it with a club . . . They are also hunted with nets, made of sinew thread thirty fathoms long and three fathoms wide with floats fastened to upper edge and rocks to the lower edge. The hunter in a bidarka endeavors very quietly to stretch such nets across the mouth of a cove and at such time, when the animals are asleep or on the beach or on some of the near by rocks, then he shouts with all his might. The frightened animal throws itself into the water and is caught in the net." 52

Unlike their Aleut and Chugach Eskimo neighbors, the people of Kodiak, until the arrival of the Russians, relied little on the sea otter except as the source of material for parkas. They were familiar with the "surround" hunting technique either prior to the time of contact with Russians or shortly thereafter.

Apparently both the Koniags and Aleuts had essentially the same techniques and equipment for hunting sea otter, and neither used the kayak-surround for seal hunting. Perhaps the Koniags preferred to occupy themselves hunting seals as individuals rather than hunting sea otters in cooperating groups. 53

The Stellar sea lion, taken with a large harpoon or a lance, was an abundant source of food or hide. Porpoise were also available to people on the north side of Kodiak.

For whaling in May and June, two or more hunters usually went out together because of the danger of capsizing in their single baidarkas. Later accounts mention the double baidarkas.

The whale-fishing, however, belongs almost

exclusively to particular families, and is handed down in succession to those children who prove to be the most expert at it A Cadiack whaler, in a single baidarka, attacks only small whales; and for this purpose he is provided with a harpoon, the spear of which is made of slate-stone, and so fixed into the handle, as to detach itself when the whale is struck. When wounded by it, the whale runs to sea and dies, and is perhaps never seen again, unless the currents and winds should throw it on the coast. Thus no whaler is sure of his prey. The spears of the whale harpoons are marked by the whalers, so that everyone knows his own. 54

Because of the lapse of time between the killing and capture of the whale carcass, there must have been at least some danger in eating the whale meat, but according to Petroff: "The Kaniags, however, claim to be able to decide whether the meat is still fit to eat by observing the gulls and other aquatic birds that swarm about the carcass . . ." 55

Subsistence from the Sea

"The principal occupation of the inhabitants of Kodiak, as of the other islands, is hunting and fishing. The men catch whales, sea-otters, sea-dogs, etc., make the baidarkis and the oars with which they are navigated, the javelins, and the planks for throwing them. The women clean and dry the fish, collect berries and roots, sew together the skins for the baidarkis, make the clothing, draw the threads from the tendons of different animals, and make cords and fishing-hooks." 56

The seasonality of food resources on Kodiak was less marked than in the Arctic, for instance, and there was less critical reliance on a particular sealing or whaling season. Waters were rich most of the year in both fish and sea

52. Father Gedeon as quoted in Clark, *op. cit.*, p. 258.

53. Clark, *op. cit.*, p. 255.

54. Lisiansky, *op. cit.*, p. 202.

55. Petroff, *op. cit.*, p. 140.

56. Langsdorff as quoted in Hrdlicka, *The Anthropology of Kodiak Island* (Philadelphia: Wistar Institute of Anatomy and Biology, 1944), p. 52.

mammals, and there was an abundance of game fowl in season. Several species of salmon ran the whole summer, and some of the bays abounded in halibut. Petroff tells us that in 1880 twice as much cod and halibut were consumed as salmon.⁵⁷ Koniags chose the sites of their settlements near streams in order to utilize the supplies of fish. They also sought shallows which, during low tide, would yield all kinds of invertebrates, especially clams, mussels, sea urchins, and snails. This was not just starvation fare. In fact, after the coming of the Russians (since less time could be spent on provisioning and individual livelihood), the littoral resources which could be gathered by the old men and women and the children gained new importance.

The food of the inhabitants consists of fish of different kinds, shell-fish, and amphibious animals. The fat of the whale, however, is the prime delicacy. It is eaten raw, as are also the heads of salmon. The other viands are boiled in earthen pots, or roasted on sticks, simply fixed in the ground before the fire. In a time of scarcity, which seldom fails to occur in winter, and is almost unavoidable during the spring, the islanders live entirely on shell-fish; they therefore form a settlement near some large bank, as the best situation for the means of subsistence.⁵⁸

"The islanders eat almost everything. There is not one mollusk, or cephalopod, or any repulsive sea worm, and almost no plant, which they did not use for food... Outstanding food of the Koniags is whale meat, and especially whale blubber and other fat, without which they almost could not live and would be dissatisfied even if having abundance of fish and meat..."⁵⁹

Petroff estimates the consumption in 1880 of dried salmon by the 159 Creole families and the 255 remaining native families to be 310,500 pounds, representing 3,105,000 pounds of fresh fish.⁶⁰

Parkas were long, alike for both sexes, and made from a wide variety of skins, including sea otter, bear and bird, but the skins of

hoary-marmot and ground squirrel were preferred. Most of the clothing was similar to that of the Chugach, except that the Koniag wore no trousers and usually no footwear.⁶¹

"The footwear of the Konjage of today consists of the boots made from the neck-skins of seal and the soles from the skins of the whale... Before the arrival of the Russians all the islanders went generally barefooted."⁶²

Davydov describes tanning:

"The women suck the fat from the skins and then smear them with fermented fish eggs. After some time they wash these off, and knead the skin until it is dry. But they tan such skins also in another manner—they lay them for two or three days in urine, after which they wash them and knead... The intestines are prepared always in the same manner. Having turned them inside out they scrape off the fat and dirt with a shell, after that wash in urine, rinse in water, let dry, and knead in hands."⁶³

The guts of sea lion, seal, bear, or whale were used to make rain parkas. In earlier times the skin of the tongue and the liver of the whale were also used. Bladders became coverings over windows or floats for the gunwales of boats.

... the Pre-Koniags, were, it would seem, not as great whale hunters as their followers, the Koniags. They did hunt whales, and utilized some of their bones, and doubtless other parts; but the old deposits are relatively poor in bones of whales. They did not use the whale ribs in any of their constructions, and did not bring any large portions of whales to the point. They did use, though only in a few instances, the scapula of the smaller whale for a seat, or as a platform for a burial; they used the bodies of the tail vertebrae of the whale for seats; the disk epiphyses of the vertebrae of young whales they used as plates and from them they occasionally wrought an excellent rimmed plate or a dish; and they used the compact bone of the whale mandible for

57. Petroff, *op. cit.*

58. Lisiansky, *op. cit.*, p. 195.

59. Davydov (II, 70-77) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 46.

60. Petroff, *op. cit.*, p. 71.

61. *Ibid.*, p. 136-40.

62. Holmberg (1856, 369) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 41.

63. Davydov (II, 11, 15-16) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 55.

making some of their points and other objects... The Koniags, it is known from the Russians, hunted whales very assiduously. ⁶⁴

Boats and Their Uses

"The baidarki are entirely safe in the sea, even in the greatest waves." They made safe journeys along the shores in them to a thousand versts; and to go in a two-place baidarka to Unalaska or Sitka was regarded as nothing uncommon. ⁶⁵

As in the Aleutians, acclimatization to the sea began early, with reports of Koniag mothers plunging crying children into water, even in winter, and keeping them there until they quite literally "cooled down." Young boys were taught to construct and manage their baidarkas. Langsdorf tells us that "... the baidarkas are constructed in the same manner, but not with the same neatness and exactness, as at Oonalashka; they are broader and more bulky, seldom being made for one person only, but commonly for two or three (a Russian addition)." ⁶⁶

They are excellent seafarers." "They ride the sea as surely as they would proceed on dry land. On a number of occasions I happened to cross with them rather broad straits in stormy, foggy or snowy weather, and to find squarely the settlement which they intended to reach.

"... We happened to ride in the baidarka in the thickest fog, when it was impossible to see farther than 35 feet; but the natives point out in such a time the shore and go straight to where they want to. If you happen to be on a boat, at night or in fog,

in a dangerous locality, you may rest tranquil if in the bows you have a native; for he always will see rocks at a sufficient distance; and it is wonderful how they can tell them in a stormy weather, when the sea everywhere is as white and rough as it is about submerged rocks.

"They cannot properly be called savages. Of course, the circle of their interests is quite small, but everything made by them is thought out and made skillfully, notwithstanding the poverty of their tools, with which a European worker could do but little..." ⁶⁷

Umiaks were used here, and a reference to the use of wooden canoes is made by one source.

That wooden canoes may also have been made by the Koniag is indicated by a passage in the account of Bragin's voyage to Alaska in 1772-76. Referring to Kodiak Island, which he visited in 1776, or more probably to one of the northern islands of the group which are wooded he says "In the mountains grow considerable ash and poplar trees from which the natives hollow out even canoes, like those of the Kamchadal, which can carry up to five men." ⁶⁸

Kodiak was not isolated from the rest of the Eskimo world. The natives there had active lines of communication to the northwest across the Alaska Peninsula, and to the northeast towards Prince William Sound. Throughout this region raids, trading partnerships, exchange festivals, and intermarriage occurred. ⁶⁹

"Before the coming of the Russians they knew already about them from their contacts with the Aleuts; and they knew also, together with the people of the Peninsula and the Kenaici and Cugaci, of the American mainland. Further than this their geographical knowledge does not reach, or is very hazy. If the Koniags are asked if there is an end to the world--they answer, 'No; long ago they say our people, in their boats,

64. Arles Hrdlicka, *The Anthropology of Kodiak Island* (Philadelphia: Wistar Institute of Anatomy and Biology, 1944) pp. 219-220.

65. Lisiansky as quoted in Hrdlicka, *The Anthropology of Kodiak Island*, *op. cit.*, p. 61.

66. Langsdorf (1814, 63) as quoted in Hrdlicka, *The Anthropology of Kodiak Island*, *op. cit.*, p. 61.

67. Davydov (II, 23, 25) as quoted in Hrdlicka, *The Anthropology of Kodiak Island*, *op. cit.*, p. 66.

68. Frederica DeLaguna, *The Archaeology of Prince William Sound, Alaska* (Seattle: University of Washington Press, 1958), p. 244.

69. Clark, *op. cit.*, p. 663.

started on a trip young, and returned old, but not even then found the end of the earth.' "70

"As to their former contacts with other peoples, an old Koniag told Holmberg...that before the first Russian ship arrived at the island 'we had some intercourse with the Aglemutes (natives of the Alaskan Peninsula), Thanainas (natives of the Kenai Peninsula), and the Koloshi (Tlingits). The old wise men even had knowledge of the Indians of California, but of White men we knew nothing.' "71

"Up to the coming of the Russians, the islanders warred among themselves for different reasons. Sometimes they were led to this through hunger, at other times through the desire for loot...at still other times for the capture of women and of slaves; but most frequently they had recourse to weapons through vengeance, which passed from generation to generation.

"The Koniags of the NW part of the island were more daring and more agile than those elsewhere; this because before the coming of the Russians they were in incessant wars among themselves, and especially with the neighboring peoples, both the Aleuts and the Kenaici." 72

The settlement of Katmai across Shelikof Strait was a point of convergence for three ancient trade routes, because it was a central point for travel across the Peninsula.

"The Konjage are very skillful in the making of various forms and shapes from walrus' tusks, which they obtain from the Peninsula inhabitants, as this animal does not occur on Kadjak... "73

"...it gave the Koniags a precious trade article (amber), which they disposed of among the people of Bristol Bay and even farther, on the Nushagak River." 74

The Russians maintained the ancient intertribal

highway from Kodiak to Bristol Bay. Shortly after Baranof's arrival,

... Bocharof was dispatched with a party of 30 men in a large skin-covered boat to examine the northern coast of the Aliaska Peninsula, and began his exploration at Issanakh Strait, between the southern point of the peninsula and the island of Oonimak. He followed the coast of the mainland northward, and was well received by the natives of the few scattered villages he encountered on his way. Late in the season Bocharof's expedition arrived at the mouth of the Kvichak, the outlet of lake Ilyamna... The approach of winter and the lack of fresh provisions, together with the appearance of scurvy among his men, caused Bocharof to make an effort to return to Kodiak. His native friends told him of a portage route across the peninsula, this he followed, discovering at that early day the quickest and safest means of communication between the Strait of Shelikof and Bering Sea, and he returned to St. Paul Harbor at the beginning of winter with a large quantity of furs, walrus ivory, and deerskins. 75

Even while the Koniags warred with the Tanainas and Chugach during one season, they continued to trade with them at other times.

"They carry on a trade with the natives of the neighborhood of Cook's River, where they purchase baidars and canoes for trinkets, provisions, and oils for whales and seals." 76

"...marmot skins from the Thanaina and Cugaci were obtained in trade for sea otter skins, ember, etc." 77

"Marmot skins are obtained through trade from the Kenaici, Cugaci, and farther eastern tribes..." 78

70. Davydov (II, 99-100) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 69.

71. Holmberg as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 90.

72. Davydov (II 32, 39, 106) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 82.

73. Holmberg (1856, 380) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 67.

74. Holmberg (1855, 82, 86) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 80.

75. Petroff, *op. cit.*, p. 103.

76. Sauer (1802, 177) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 80.

77. Holmberg (1844, 82, 86) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 81.

78. Davydov (II, 14) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 80.

Russian Arrival

During the four decades prior to 1784, the Russian fur seekers had been ranging through the Aleutians to the west and probably were known to the natives of Kodiak, who made the first contact unprofitable for the Russians and repeatedly resisted their invasion. The population at the time of Russian arrival is estimated by Hrdlicka as close to 10,000⁷⁹, by Clark as approximately 8,000.⁸⁰ In the beginning of the nineteenth century, Davydov reported: "There are settlements established along the sea coast around the whole island."⁸¹

"Out of 65 settlements in which up to that time lived the Aleuts (in this case he means

the people of Kodiak), or better said from which they lead a nomadic life over Kodiak and the islands that belong to it, there were formed seven communities - (one at Saint Paul), one at the Three Saints establishment; one each at Orlov, Karluk and the Afognak stations, and on Wood Island; besides the one that constitutes the establishment on the island Ukamok."⁸²

Chiefs in each community were held responsible for the collection of food supplies and the maintenance of storehouses where surplus provisions were placed in times of plenty, to be issued again in times of want. Similar measures were carried out, not only at Kodiak, but also on the Aleutian Islands. Of course, by this time, due to smallpox epidemics and the extensive utilization of the men by the Russians in hunting for the Russian American Company, the population in Kodiak was already less than half of what it was upon Russian arrival. Bancroft tells us the population was 6,519 in 1795.⁸³ The Petroff census of 1880 shows only 2,000.⁸⁴

79. Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 2.

80. Clark, *op. cit.*, p. 9.

81. Davydov (1812, II, 113) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 18.

82. Tikhmeniev (1861, I, 315) as quoted in Hrdlicka, *The Anthropology of Kodiak Island, op. cit.*, p. 19.

83. Hubert Howe Bancroft, *History of Alaska, 1730-1855* (San Francisco: A.L. Bancroft and Company, 1886), p. 432.

84. Petroff *op. cit.*

This bay has fourteen settlements, and about three thousand inhabitants, who have a language of their own. Their canoes are sheathed with the bark of trees. The families, however, who live near the sea, use only the common baidarkas... They live better than the Aleutians; because, besides the article of fish, there are wild animals which they hunt, and especially wild sheep...⁸⁵

The Tanaina occupied the lopsided horseshoe of land around Cook Inlet; they were the only Athapaskans who had ready access to sea mammals. Sea life was abundant, including larger whales, sea otter, seal, beluga, killer

whale, porpoise, and blackfish whale. The value of the sea mammals as food where available was tremendous. Among the fish the salmon was the most important, although candlefish, halibut, and herring were also abundant at certain times in certain places. Halibut were everywhere in Kachemak Bay during the summer, retiring to deep water in winter, but there were few around Tyonek, and Kenai people did not fish for halibut. Kachemak Bay had hair seal, fur seal, sea otter, sea lion, porpoise, beluga, and whale. The people of Kenai had available to them hair seal and beluga. Generally, the further up the inlet a village was located, the poorer its food supply.

Hunting and Fishing

Fish were sometimes speared, pushed onto flats where they were stranded at low tide, or caught with a drag net made of alder poles tied together with spruce.

The ordinary native method of catching salmon is to construct a weir by damming a creek or small river with a construction of logs and debris set diagonally upstream from each side toward a small opening in the center through which the fish are forced to pass, thus entering a V-shaped trap of logs about 10 feet on a side, from which they can not extricate themselves. One man stands in the trap and with a small dip-net takes out two or three fish at a time, which

another man kills with a club. A third man puts a spruce root line through their gills (or throws them into a boat) and brings them ashore. Sometimes, instead of the simple fish weir, the Indians make a basket trap of long alders with a conical entrance which they place at the opening of the dam. They remove the fish from a door in the same manner described above. The Kachemak Bay Tanaina do not use a gaff-hook in fishing, but at Kenai the latter instrument serves for catching crabs.⁸⁶

There apparently is not sufficient evidence to show that whaling occurred in early times,

85. Lisiansky, *op. cit.*, p. 188.

86. Cornelius Osgood, *The Ethnography of the Tanaina* (New Haven: Yale University Publication in Anthropology No. 16, 1966), p. 28.

but the later extensive use of whalebone in construction indicates a greater source of this material than would have been available simply from the supply of animals which died and were washed ashore.⁸⁷ It is, of course, impossible to tell at this point whether a whale died a natural death or died as a result of being harpooned or netted. Osgood suggests that the Tanaina did not kill the larger whale, although they relished it. They obtained meat of larger whales in trade for furs from neighboring Eskimos.⁸⁸ Beluga, however, were available even in the upper inlet, where they would break through the ice in mild winters to feed on tomcod. They were harpooned with the dragging float, as were the sea lion, and were killed with a spear after they tired.

In former times the natives of the lower part of Cook's inlet engaged largely in the capture of beluga, or white grampus, deriving from these monsters the greater part of their subsistence.⁸⁹

There are, of course, expeditions undertaken by groups from the villages, even those up the Susitna River and at Iliamna Lake, to the nearest point where the desired animals can be obtained.⁹⁰

Most sea otter hunting was done from Kachemak Bay villages.

From the Kenai settlements on the eastern shore of the inlet and the Kustatan village opposite, southward, the men are also sea-otter hunters, going down to Anchor point and the Barren islands in parties, or to the reefs of Chermaboura and Cape Douglas.⁹¹

Sea lion were hunted in the coves of Kachemak Bay and out in the inlet. Care was exercised, because sometimes the animal turned on boats and ripped them open.

Seals were sometimes hunted from baidarkas

with a bow, or were hunted in bays at low tide when they had crawled up on the beach.

The hunter approaches from the sea by swimming, occasionally bringing his head above the surface in simulation of the seal. On reaching the shore the hunter dashes up and kills as many as he can with a crooked wooden club before the herd escapes into the water.⁹²

Subsistence from the Sea

For the majority of the Tanaina, fish, especially salmon, were the most important diet item. Landing at Point Possession in 1778, Captain Cook found:

Their company was very acceptable, for they brought with them a large quantity of very fine salmon, which they exchanged for such trifles as we had to give them. Several hundredweight of salmon was procured for the two ships. All the people we met with resembled those who inhabit Prince William Sound. I will be bold to say the Russians have never been among them; for if that had been the case, we should hardly have found them clothed in such valuable skins as those of the sea otter.⁹³

Petroff estimates that in 1880 a total of 168 families, consisting of four individuals each, prepared at least 750 pounds of dried salmon for winter provisions, which represented over a million pounds of fresh fish.⁹⁴ The other chief food sources were various species of fish, seal, porpoise, marmot, woodchuck, and birds. Shellfish formed a basic food supply in some areas, particularly in the spring when stored provisions had been exhausted.

The Tanaina employed the same criteria in

87. Hans-Georg Bandi, *Eskimo Prehistory*, trans. Ann E. Keep (College: University of Alaska Press, 1969), p. 95.

88. Osgood, *op. cit.*, p. 39.

89. Petroff, *op. cit.*, p. 71.

90. Osgood, *op. cit.*, p. 37.

91. Petroff, *op. cit.*, p. 27.

92. Osgood, *op. cit.*, p. 37.

93. James Cook, *70° North to Fifty° South*, ed. and annot. Paul W. Dale (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1969), p. 223.

94. Petroff, *op. cit.*, p. 71.

choosing village sites as the Aleuts, Kodiak Eskimo and Prince William Sound Eskimo--the need for an extended view and opportunities for escape in a variety of directions.

Boats and Their Uses

Giving up their more ancient craft (the birchbark canoe and the moose skin river boat), the Tanaina probably first acquired kayaks and umiaks through trade with the Eskimo. The upper inlet natives continued to depend upon the birchbark canoes and Susitna and Iliamna natives had only moose skin boats and birchbark canoes. Despite Petroff's suggestion that they built birchbark canoes and bought skin kayaks, it is likely that the Tanaina were making their own kayaks before their first contact with the Russians. Although adopting much from the Eskimos, the Athapaskan method of sitting on one's legs while paddling was retained.

Women, as well as men, use the kaiaks. The Tanaian exercise great skill in the manipulation of kaiaks and take long journeys. Old men thrill to recount their adventures in rough seas, explaining the trick of leaning into a wave to keep from turning over, or how to turn the knees sidewise and give a twist to the paddle in a craft that has capsized thus making a complete revolution in the water.⁹⁵

Kaiaks in the lower inlet region were once so much in evidence that it would almost seem that the people were seldom out of these crafts.⁹⁶

Half a dozen men worked together for a week to construct an umiak, using from twenty to fifty sealskins. Sometimes sails were used (an innovation the Tanaina learned from Cook),

which were made of caribou skin tanned without hair.⁹⁷

Occasionally the Tanaina made dugout canoes, which were used exclusively to portage fish short distances, and which did not resemble the elaborate boats of the Tlingits and Haidas.

Tanaina villages did not fight one another; they fought their hereditary enemies from Kodiak, who made frequent journeys to Tanaina villages for that purpose.⁹⁸ Wife-snatching was a motivation for the aggressiveness of Koniags, as was their need for light skins for their clothing. In addition to warring for skins, the Koniags also traded the Tanaina whale meat in return for the lynx and marten skins. It is not reported that the Tanaina went to Kodiak to trade, only the opposite. There was, however, extensive trade among the Tanaina villages. Ancient trade routes led inland from Cook Inlet, connecting with Bristol Bay and the Kuskokwim River drainage. Other routes led to the east.

The Kachemak Bay Indians... make extensive visits among friendly Eskimo on the south coast of the Kenai Peninsula and those of Chugach Sound, and with these people there is some intermarriage.⁹⁹

Sometimes the Indians in the Tyonek area can get little food and after the waters of the Upper Inlet freeze, the men cross over and come down the other side to Kachemak Bay. Here they build big fires and make a great deal of smoke by smothering them with wet kelp. When the Kachemak Bay people see the smoke they go across the bay in umiaks and bring the visitors back. Some of these people do not return to their own country until spring, in which case they may be sent home in a umiak.¹⁰⁰

Petroff tells of guests arriving by canoe at a festival celebrating a beluga hunt held at Chkituk.¹⁰¹

Permanent Russian trading posts were established on Cook Inlet as early as 1789.¹⁰²

95. Osgood, *op. cit.*, p. 69.

96. *Ibid.*, p. 193.

97. *Ibid.*, p. 69.

98. *Ibid.*, p. 109.

99. *Ibid.*, p. 73.

100. *Ibid.*, p. 75.

101. Petroff, *op. cit.*, p. 163.

102. *Ibid.*, p. 162.

Prince William Sound

The warlike, active Chugach Eskimo living in the Prince William Sound area were the easternmost tribe of purely Eskimo extraction. For unknown reasons, the area was not as populated as one would expect. It was temperate in climate and extremely rich in game, for in the sound were harbor seal, porpoise, fur seal, spotted seal (and occasionally ribbon seal), sea otter, sea lion, beluga, blackfish whale, killer whale and larger baleen whale.

Fish included halibut, cod, herring, bass, eulachon, shark, octopus . . . The most important fish of all was of course the salmon. There were relatively few kings, reds, or silvers, but multitudes of pink (or humpbacked) and dog (or chum) salmon.¹⁰³

Once again, shellfish appear as an important seasonal addition to the diet.

Chugach Eskimo claimed Kayak and Wingham islands in the 1700s, although to reach these areas they had to pass through Eyak waters at the mouth of the Copper River. Middleton Island was also part of the Chugach hunting territory; early Russians reported trade and fights with natives there.¹⁰⁴ Probably the camps on the exposed outer shores of Montague and Hinchinbrook Islands and on Kayak, Wingham and Middleton islands were temporary summer sea otter hunting camps. There were probably no permanent villages in these places, due to the dangers of access.

Hunting and Fishing

For salmon, available in the sound in early May, the Chugach Eskimo used several kinds of fishhooks and spears. Ordinary fishing nets were unknown. As salmon swam up streams where weirs of poles had been placed to confine them, they were harpooned by barbed dart heads to which hand lines were attached. In tidal streams, the Chugach used traps made of roots, grass, or bark to retain the fish as the tidal waters receded.

In the early summer, when halibut were available, the Chugach used halibut hooks similar to those used by the Northwest Coast Indians and the people of Kodiak.

Herring were taken with a wooden, three-pronged leister, a long-handled rake, or dip net. Clams, cockles, mussels, and other shellfish played their own important roles in providing spring food. But there is no evidence that crab or shrimp were eaten.¹⁰⁵

103. Frederica DeLaguna. *Chugach Prehistory*. (Seattle: University of Washington Press, 1956), p. 6.

104. *Ibid.*, pp. 9-10

105. Kaj Birket-Smith, *The Chugach Eskimo* (Copenhagen: National Museum Publications, 1953), p. 42.

According to Birket-Smith, the people of Chenega hunted sperm and humpback whales, little finners, white whales, blackfish, and porpoises.¹⁰⁶ For smaller whales, a toggle harpoon head was used; for great whales, the most typical method was the lance with poisoned slate head.¹⁰⁷ The whales were hunted year-round. Even in winter, there was generally enough open water to permit the use of baidarkas. The hunt was carried on in land-locked bays, never in the open sea, where the carcass could not be secured.

Only one man speared the whale, and as soon as it was struck, the lance blade would break off and remain in the wound, for which reason it was provided with a property mark. All baidarkas would then hurry to the mouth of the bay and pour "poison" made of human fat into the water. This would prevent the animal from escaping. Sometimes it might still live for two or three days, but it never went away, and finally it died and drifted ashore.¹⁰⁸

By 1880 Petroff reports: "Whales are plentiful in these waters, but the natives are not bold enough to attack them."¹⁰⁹

On the whole, hunting methods and equipment of the Chugach were like those commonly employed throughout this area of Alaska, although their territory gave them opportunities for hunting a greater variety of land animals than were commonly found elsewhere. The harpoon used on sea lions, seals, and small whales had a detachable head made of the wrist bone of a sea lion. After being struck, the quarry resurfaced to be harpooned again or lanced, and finally killed with a club. Stuffed seals were used as decoys. Sealing nets were not used. Sea lions and fur seals, accustomed to sleeping in the water, were pursued by groups of baidarkas, whereas spotted seal were taken by single hunters. Fur seals were best hunted in spring. The best time for hunting sea lions was October, their odor being too strong in the summer. A thong was passed through the lower jaw of the dead animal prior to towing by the necessary three baidarkas. Sea otter, as whales, were available year-round in great quantity.¹¹⁰

Even common people could afford to wear clothes made of sea otter skins. The Chugach hunted in groups in two-holed baidarkas, usually using bow and arrow or light harpoon darts with throwing boards.

Subsistence from the Sea

Land and sea mammals in the area supplied the Chugach with the furs, skins, bones, horns, etc., needed for clothing, tools, and weapons. However, the animal kingdom was not the only source of supply. Wood, bark, spruce roots, and grass were available and utilized.

Village sites were invariably on the shore, usually on protected waters, for travel in this area is practically restricted to boats. The village was frequently so placed that it commanded a view of the approaches, and a strategic position seems to have been a much more important consideration than the neighborhood of a salmon stream or a particularly rich bed of shellfish. Thus no permanent villages were located at the heads of bays, in spite of the tempting presence of some of the best salmon streams, because these were "dead ends" from which no escape by water would be possible in the event of an attack. Temporary camps were, however, made at fish streams during the salmon runs. There are few beaches or rocks without shellfish, and the natives did not have to worry about fresh water since almost every mile of shore has a small creek or a trickle of water over the rocks. Small rocky islands or skerries which were difficult to climb were used as refuge places or natural forts in time of war. The women, children, and aged would sometimes be put there when their men were on a raid to protect them from possible retaliation.¹¹¹

106. *Ibid.*, p. 33.

107. DeLaguna, *Chugach Prehistory*, *op. cit.*, p. 270.

108. Birket-Smith, *The Chugach Eskimo*, *op. cit.*, pp. 33-34.

109. Petroff, *op. cit.*, p. 27.

110. Birket-Smith, *The Chugach Eskimo*, *op. cit.*, pp. 27-33

111. DeLaguna, *Chugach Prehistory*, *op. cit.*, p. 11.

The innermost garment of both men and women was made of the skin of newborn seal (or caribou skin obtained as a trade item), and tied with a string around the neck and another round the waist. Outer coats were made of marten, mink, sea otter, ground squirrel, or bird skin, and reached the knees or ankles.¹¹² Sealskin was regarded as being too cheap for clothing. Cook reported that the coats reached to the ankles, and were worn with the hairy side outward.¹¹³ Trousers were not worn. Although later reports tell of boots of sea lion skin or dog salmon skin with sealskin soles, the earliest European explorers reported no foot coverings. Kamleikas, the waterproof jackets and shirts, appear again.

Petroff estimates that in 1880 the Chugach Eskimo consumed 60,000 fish of all kinds (but chiefly salmon), representing an aggregate weight of 300,000 pounds.¹¹⁴

Boats and Their Uses

Almost all travel was by sea through the innumerable fiords and inlets. The umiak was employed frequently for transporting families to summer or winter settlements and for war parties.

These are said to have had masts and sails as well as paddles for propulsion and must have been seaworthy craft since tradition tells of a raid on Kodiak in the dead of winter.¹¹⁵

The one-man kayak served in porpoise hunting, fishing, and traveling only. The two-man kayak was the chief hunting craft.¹¹⁶ Skins of sea lion or spotted seal were used in kayak construction. Men and women jointly made the boats. After

construction the skins occasionally were treated with lukewarm shark liver oil. The Chugach Eskimo also used dugouts.

Its greater importance among the Chugach than among other groups in the area reflects easy access to suitable trees and development of wood-working, and also illustrates their marginal position as neighbors of the dug out-using Eyak and Tlingit.¹¹⁷

In addition, Miss DeLaguna reports on a small dugout not unlike that used in Cook Inlet, which must have acted as a "second car". It was smaller than the smallest Eyak canoe and lacked the graceful lines of that vessel.

Thus they could have carried only one person, and would have been very unsafe except in sheltered waters. It is curious that a people who could make such excellent skin boats . . . should have troubled to manufacture these little wooden boats.¹¹⁸

She concludes that these were likely used by women for short trips since the kayak was the man's hunting canoe and the umiak would have been too cumbersome for just one woman to handle.

Upon the contact with the earliest Russian explorers, the Chugach reported war and trade between themselves and five other tribes: The Koniagas, people of Kodiak; the Kenais; the Yullits, or Copper River natives who traded copper and land furs with the coast people for seal skins, dried fish, and oil; the Eyaks and finally the Kolosh, a warlike tribe with large wooden boats.¹¹⁹ Continuous warfare seems to have been the general state of affairs between the Pacific tribes.¹²⁰

Chugach stories deal with wars between themselves and the Koniag, and of raids made by the Tlingit during historic times.¹²¹

112. Oswalt, *op. cit.*, pp. 139-40.

113. James Cook, ed. and annot. Paul W. Dale, *op. cit.*, p. 217.

114. Petroff, *op. cit.*

115. DeLaguna, *Chugach Prehistory*, *op. cit.*, p. 272.

116. Birket-Smith, *The Chugach Eskimo*, *op. cit.*, p. 45.

117. DeLaguna, *Chugach Prehistory*, *op. cit.*, p. 272.

118. *Ibid.*, p. 243.

119. Bancroft, *op. cit.*, p. 191.

120. Zaikov (1782, p. 284) as quoted in Birket-Smith, *The Chugach Eskimo*, *op. cit.*, p. 101.

121. DeLaguna, *Chugach Prehistory*, *op. cit.*, p. 9.

Attacking parties usually traveled by umiak. Hostages were exchanged with the Eyak and Tanaina Indians. Armor was made of wood and wound with sinews.

No formal trading centers or trading partnerships existed among the Chugach, although they had extensive trading relationships with adjacent Indian and Eskimo tribes.

Copper was obtained from Nuchek, greenstone partly from Montague Island and partly from Hinchinbrook Island and a place on the mainland, while slate was traded from Chenega and Fleming Island. The latter place also provided rocks for adze blades. The Montague people were famous for their good hunting implements. From the Eskimo to the west the Chugach acquired caribou skins, and according to Holmberg they provided the Kodiak natives with ground-squirrel skins.¹²²

The Eyak were very poor. They had only eagle skins for clothes and had little to eat. Therefore they bought food from the Chugach and paid them with baskets, snowshoes, adzes, and wedges. The Tlingit, on the other hand, were rich people, for

which reason only little trade was carried on with them. Still, the Chugach obtained *Dentalium* shells from them, giving furs instead.¹²³

On an early trip to the Kayak island area Shelekhov obtained two boys in trade "... about 12 years old, one of whom was a Koniaga who had been taken prisoner by the Kenais, even before the Company took over Kodiak Island. He was then sold to the Chugachs and by them to the Ugalakhmutes. He finally came to the Kolosh..."¹²⁴

Miss DeLaguna suggests that since walrus were rare, the walrus ivory found may represent trade extending to the Alaska Peninsula for: "The Chugach knew about the Eskimo of Bristol Bay."¹²⁵ Prince William Sound was one of the locations where Captain Cook discovered beads and iron upon his arrival and pondered their source.¹²⁶

Immediately after Cook's voyage, there began a veritable race to these regions, in which Russians, Britishers, and Spaniards took part. The Russians, with the backing of their settlements on the Aleutians and on Kodiak, managed to establish domination by the turn of the 18th century.

122. Birket-Smith, *The Chugach Eskimo*, *op. cit.*, p. 100.

123. *Ibid.*, pp. 100-1.

124. Shelekhov, *The Earliest History of Alaska; First English Editions of Three Russian Works, Shelekhov's voyage to Alaska, 1793; Berk's History of the Aleutian Islands, 1823; Khlebnikov's Life of Baranof, 1835*, ed. and annot. by Melvin B. Ricks (Anchorage: Cook Inlet Historical Society, 1963), p. 28.

125. DeLanguna, *Chugach Prehistory*, *op. cit.*, p. 6.

126. James Cook, ed. and annot. by Paul W. Dale, *op. cit.*, p. 218.

Drying salmon, Copper River. University of Alaska Archives, Cameron collection.



The narrow coastal strip along the delta of the Copper River at the extreme southeastern edge of Prince William Sound was the territory of the Eyak Indians. The Eyak acted as middleman in trade between the Chugach and the Ahtna Athapaskans of the Copper River.¹²⁷ In very early times, the Eyak lived farther to the east than they did in historic times, trespassing on Eskimo territory as they were forced westward by the advancing Tlingit.

The most important source of food in Eyak economy was salmon. Fishing was done by men, while the women cleaned and smoked the catch. Quoting Abercrombie, DeLaguna and Birket-Smith tell us:

"... the men generally fished in pairs. They had a simple scaffold, which consisted of a single log, one end resting on the river bank, the other supported over the water in the crotch of two poles, the tops of which had been lashed together. One man would stand on this, holding about 6 or 8 feet of his spear in the water, waiting until a seal or salmon came close enough to be struck. He would not attempt to jab the spear down into the water from the air, because the splash would frighten away the game. The hunter tried to harpoon the fish or seal near the tail, because that would most effectively cripple it, and he would endeavour to retain his hold on the spear shaft. His assistant stood ready to club the game. Generally when fishing, the assistant would have a second spear ready for his companion as soon as the latter passed back the first harpoon with the fish dangling at the end of the line. The run of fish was often so heavy that the assistant had to work fast, cutting loose the salmon from the barbs, and replacing the head on the shaft, to be ready

with the spear when his companion needed it. The slough at Alaganik would be literally packed with salmon during the run, and two men working in this way could catch enough to keep several women busy cutting up the fish."¹²⁸

Fish were also speared from canoes and fish traps were sometimes used. Halibut were caught from a canoe by hook and kelp line baited with a clam.

Clams were dug with a pointed stick at low tide and eaten fresh or dried.

The only sea mammals hunted by the Eyak were the seal and sea otter. They did not hunt fur seals because they were afraid of them, but killed the small harbor or hair seal. They did not hunt porpoises like their Eskimo neighbors, and they were afraid of the walrus because these animals were supposed to be transformed human beings. Walrus, moreover, always seem to have been scarce in this region. They did not hunt whales, but when a dead one was found they ate the flesh, and the fat, and utilized the baleen.¹²⁹

Sea otter were hunted off the Egg Islands and Strawberry Point, Hinchinbrook Island, with care being taken not to poach too obviously on Eskimo areas and rights. The "drive" or "surround" method was applied here, as in so much of this area, and was sometimes used even on ordinary sealing expeditions. The Eyak used the kayak to some extent in sealing, but most of the seals were harpooned or clubbed on rocks or sandbars, or on the ice. The harpoon, when used, was the same as that used for fish. Hunters dressed in sealskins would imitate the movement and noise of seals on the ice, but there was no

127. DeLaguna, *Chugach Prehistory*, *op. cit.*, p. 9.

128. Kaj Birket-Smith and Frederica DeLaguna, *The Eyak Indians of the Copper River Delta, Alaska*, (Copenhagen: Levin and Manksgaard, 1938) p. 117.

129. *Ibid.*, p. 107.

breathing hole sealing and no special sealing scratchers were used.

Most of the supplies for winter were obtained in the summer. Salmon, candlefish, and herring were all dried. The women rolled herring on stones frequently to expose them to fresh surfaces of warm rock. Seal fat was given to infants to suck on the ends of sticks.¹³⁰ Meat and fish were boiled in spruce root baskets with hot stones, a cooking method also used by the Chugach Eskimo.

Dress of both sexes consisted of shirt, trousers, and occasionally boots. The outer shirts, except those worn by the chiefs and their families, who used sea otter skins, were usually of eagle or swan skins. Trousers were of sealskin. The usual waterproof shirts were made of seal intestines. Except for traveling and inland hunting, everyone usually went barefooted, even in the snow. When used, boots were of sealskin, with the hair turned inside. The Eyak sewed the boot seams clear through the skin, instead of blind-stitching them to make them waterproof, as those of their Eskimo neighbors.¹³¹

Boats and Their Uses

Situated as they are without trails, the water is their highway and the canoe the universal means of transportation. They own no large canoes. Those in common use are 15 feet in length, 18 inches beam when spread, round bottomed, sharp at stem and stern, and weigh from 80 to 125 lbs. They will carry two natives or, upon an emergency, three, with their supplies for a week. In experienced hands they will ride out in safety a considerable sea, provided it is not breaking, and in open water, where rocks, brush, floating logs, or ice do not endanger them, are exceedingly serviceable."¹³²

The largest Eyak canoe, still inferior in size to the Tlingit canoe, lacked the graceful lines of the smaller Eyak canoe. The largest canoe

carried six to eight persons. To hollow out the felled tree, two or three fires were built along the middle, followed by the adzing out of the charred wood. The inside was filled with water that was heated with hot stones, so that the sides could be forced out. When not actually in use, the canoes were kept shaded and dampened. In the large canoes the occupants sat on thwarts. In the small canoes they straddled wooden canoe stools, in a half kneeling position. Even the children were expert in the management of the canoes.¹³³ Petroff reports skin boats as far south as the villages of more northerly Tlingits near Controller Bay. However, Abercrombie reported: "The baidarka in such general use to the westward is not used to any extent by the Eyaks."¹³⁴ Possibly the skin boats found among the northern Tlingits were confined to Russian sea otter hunting trips.

Eyak adopted the custom of giving potlatches from their Northwest Coast neighbors. Journeys of several days were not unusual to arrive at the potlatch location.

Occasionally, the Eyak fought with the Tlingit. The Eyak considered themselves more closely related to the Tlingit than to the Eskimo and they traded with the Tlingits, meeting them either in their own villages or at Katalla. Most of the Eyak fights were with the Eskimo; ill-feeling between these peoples resulted in a state of permanent hostility somewhat frustrated by the small size of the Eyak tribe. The last fight between the Eyak and Chugach Eskimo at Hawkins Island resulted in the killing of nearly all the Eskimos.

Our Eskimo informant, Makari, told us that the Eyak were so poor that they had very little to eat, and used to buy food from the Eskimo in exchange for blankets, snowshoes, axes, and wedges. The only possible truth in this statement, which clearly illustrates the contempt of the Eskimo for the Eyak, may be that the Eyak sometimes bought such marine products as seal oil or whale oil from the Eskimo, who were certainly more adept in sea-mammal hunting. There is, however, no indication of such trade in the statements made by the Eyak themselves.¹³⁵

130. *Ibid.*, p. 99.

131. *Ibid.*, p. 68.

132. Abercrombie as quoted in *Ibid.*, p. 51.

133. *Ibid.*, pp. 48-49

134. *Ibid.*, p. 52.

135. *Ibid.*, p. 99.

If our picture of the world is that of the farmer, property-owner and landlubber, the Tlingit's is that of the traveler, especially the mariner, who is concerned with places and the routes between them. The world for the Tlingit is probably visualized more as it is in our sailing and harbor charts than as it is in our political areal maps, for such charts reduce the land to landfalls, to reefs, shoals, and anchorages to be avoided or sought, and they sacrifice or distort lineal and areal measurements to emphasize angles of direction. Sib territorial rights do not refer then to areas but to specific spots: fishing streams, coves, berry patches, or house sites, etc., and the terrain or water between these places are simply the relatively undifferentiated landscape through which one travels in going from one to the other. Even places on the unmarked waters, such as halibut banks, are located by lines of sight on prominent landmarks. Whereas our cardinal directions are astronomical in character and function like a grid which can be superimposed on any part of the world and so reduce all terrestrial space to one uniform scheme, at least two of the cardinal directions of the Tlingit refer primarily to the flow of currents in their home waters and even here they lack an absolute quality. Thus, northward . . . is essentially "upriver," and "southward," . . . is "downriver."¹³⁶

The Tlingits are the most northerly of the northcoast Indian nations. The Haida occupied the southern half of the Prince of Wales Islands within Alaska, and the Tsimpshians were a mainland coastal people. There was an almost complete sharing in mode of life, customs, and habits of these people. Still, all the tribes, because of their various locations, lived in various ways. Some were oriented strongly toward the open sea, others exclusively toward the rivers and inland bays.

Hunters went inland as little as possible, even trying to train their dogs to drive deer to where the hunter waited on the beach.

The Tlingit . . . are emphatically a maritime people, skillful in the construction and management of their huge wooden canoes fashioned out of a single log.¹³⁷

Permanent winter villages were usually located with a good view of the open waters across which friends or foes would approach. Even areas of dangerous water would be acceptable as village sites, the attitude being that local knowledge and skill could make the places safe. Treacherous waters were deemed dangerous

136. Frederica DeLaguna, *The story of a Tlingit community: a problem in the relationship between archeological, ethnological, and historical methods* (Washington: Government Printing Office, 1960), p. 20.

137. Patroff, *op. cit.*, p. 165.

only to strangers. The sea was the source of life. Its abundant resources made a relatively dense population possible once methods for preserving the seasonal fish were found.

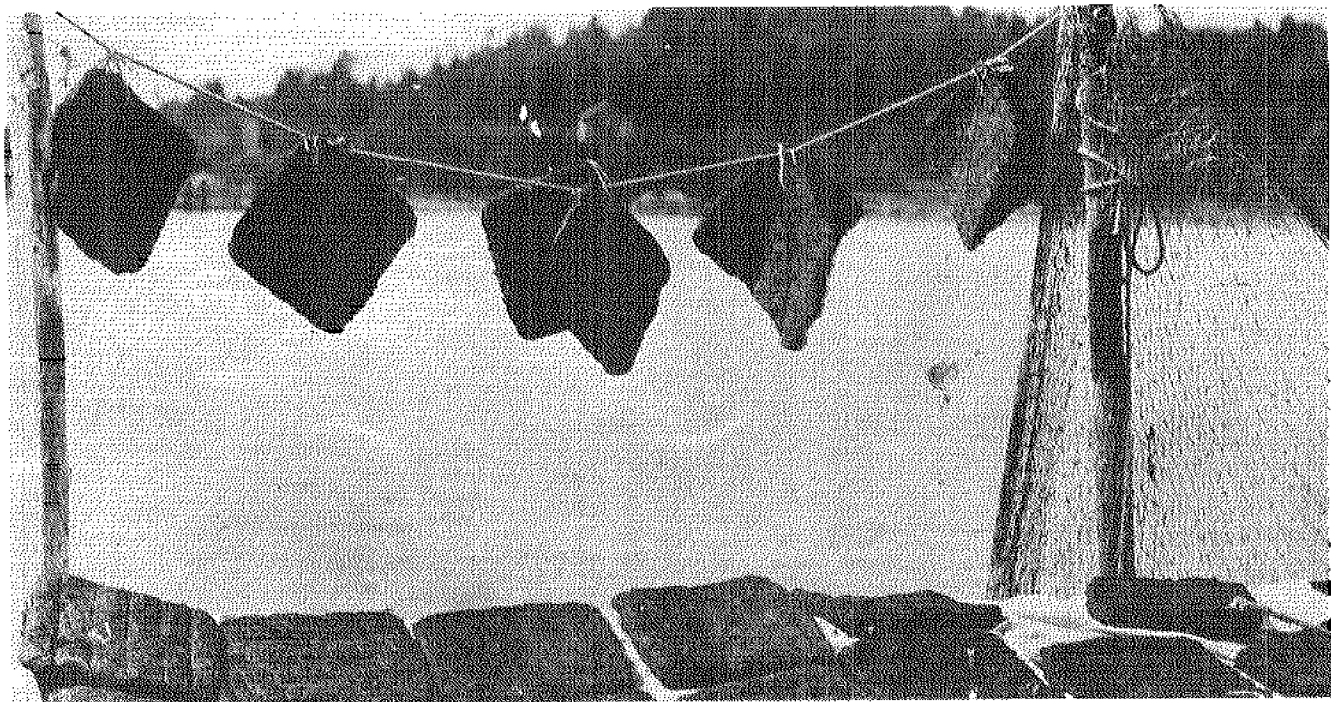
From the sea and rivers, fish--five species of Pacific salmon, halibut, cod, herring, smelt, and the famous olachen or "candlefish" (this last so rich in oil that a dried one with a wick threaded through it burns like a candle), and other species too numerous to mention--could be taken in abundance. Some of these fish appeared only seasonally, but were easy to preserve. The sea also provided a tremendous quantity of edible mollusks.¹³⁸

In the old days, we are told, the runs were so heavy that a few fish traps could supply all that a large household (20-40 persons) could eat in a year, and no special magic was necessary for salmon fishing. Schools of herring used to crowd so tightly into the bays that a strong arm was needed to drive the fish rake through the mass of their bodies.¹³⁹

The Tlingits, following wandering schools of fish, often moved their summer camps from location to location to intercept different runs of fish.

This often makes the canoe a second home, for weeks and even months, and in it they carry all their household possessions, as well as the gear for fishing and hunting.¹⁴⁰

The Thlinket, like most of the tribes of the northwest coast of North America, may be called marine nomads, as they occupy fixed dwelling-places only during the winter, roving about during the summer in search of food for the winter. They derive their principal nourishment from the sea... The sea that washes the shore is extraordinarily rich, not only in fish, but in all kinds of mollusks and algae. The ebb-tide bares the shore twice each day and leaves behind an abundance of such food in pools and on the rocks, enabling a Thlinket to pick up his dinner without much exertion. He refuses no kind of mollusk and consumes nearly every species of marine plant.¹⁴¹



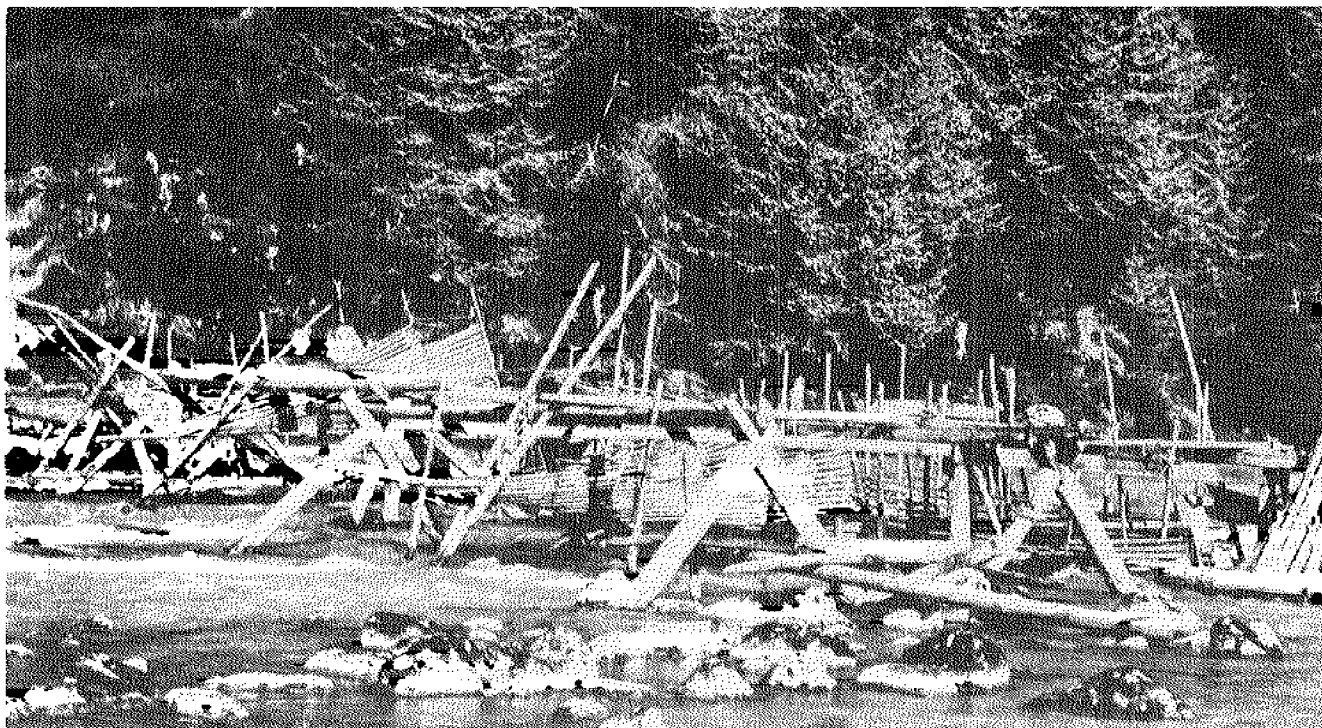
Dried seaweed at Sitka. This was a common food of the Tlingit Indians and was gathered in the spring and pressed into bentwood boxes to dry. Alaska State Historical Library.

138. Philip Drucker, *Indians of the Northwest Coast* (New York: McGraw-Hill Book Company, Inc., 1955), p. 2.

139. DeLaguna, *The Story of a Tlingit Community*, *op. cit.*, pp. 28-29.

140. Aurel Krause, *Results of a Trip to the Northwest Coast of America and the Bering Straits (about 1878)*, trans. Erna Gunther (Seattle: University of Washington Press, 1956), p. 120.

141. Petroff, *op. cit.*, p. 167.



An important addition to all these foods were the sea mammals--the whales, porpises, and hair seal, fur seals, and sea lions. Following the fish runs, these animals penetrated the bays and straits of the archipelago. The sea otter, originally in the bays, only later confined themselves to the outer coast. Particularly in the northern Tlingit area, because of the roughness of the terrain, land hunting was a luxury activity. Aside from fish and shellfish, sea mammals were more important to the inhabitants than were waterfowl or land animals.

Although halibut were important, too, no fish was followed as eagerly by the Tlingit as the salmon. They were taken in traps, with hooks or by spearing.

... a very primitive way of catching salmon, is generally done from shore, but in shallow water a canoe can also be used. The fishermen lowers a long pole with an iron hook... into the water and pulls it toward him over the pebbly bottom with a motion similar to that of raking. The muddy waters of the Chlikat River are not generally

favorable for this method, but the numbers of ascending salmon are so great that often enough one of them is caught by the hook.¹⁴²

The apparently clumsy hooks of this region have been found to possess so many advantages over the type used by Europeans that they are retained by the Indians to this day. Curiously enough the use to which they put our large steel hooks is... as spear heads, to which they are admirably adapted.¹⁴³

Traps were constructed like huge baskets, and were set up in the rivers and sometimes at points along the coast where salmon congregated. Fence-like weirs of poles were constructed to turn the fish into these traps.

Halibut was consumed in immense quantities, both fresh and smoked, in all Tlingit villages. The line fishing for them was ingenious.

An unusually large wooden hook with an obliquely set iron nail and generally ornamented with a more or less artistically carved figure... is used for halibut and

142. Krause, *op. cit.*, p. 121.

143. Albert P. Niblack, *The Coast Indians of Southern Alaska and Northern British Columbia* (New York: Johnson Reprint Corporation, 1970), p. 290.

baited with any fish, sometimes even with pieces of red salmon. The lines are made of the fiber of red cedar... or of braided sinew, as well as the long, finger-thick stem of giant kelp... which has exceptional tensile strength. These lines are let down to the bottom by means of stone sinkers and at their upper end is a wooden float in the form of an animal which jerks when the fish is biting. The whole set is kept afloat with inflated bladders. In this manner two people going out together in a canoe can keep several lines, as many as fifteen, out and watch them. When a fish bites, it is pulled up on the line and as soon as it comes to the surface of the water it is clubbed on the head. The club used for this purpose is made of very heavy wood and carved with symbolic figures.¹⁴⁴

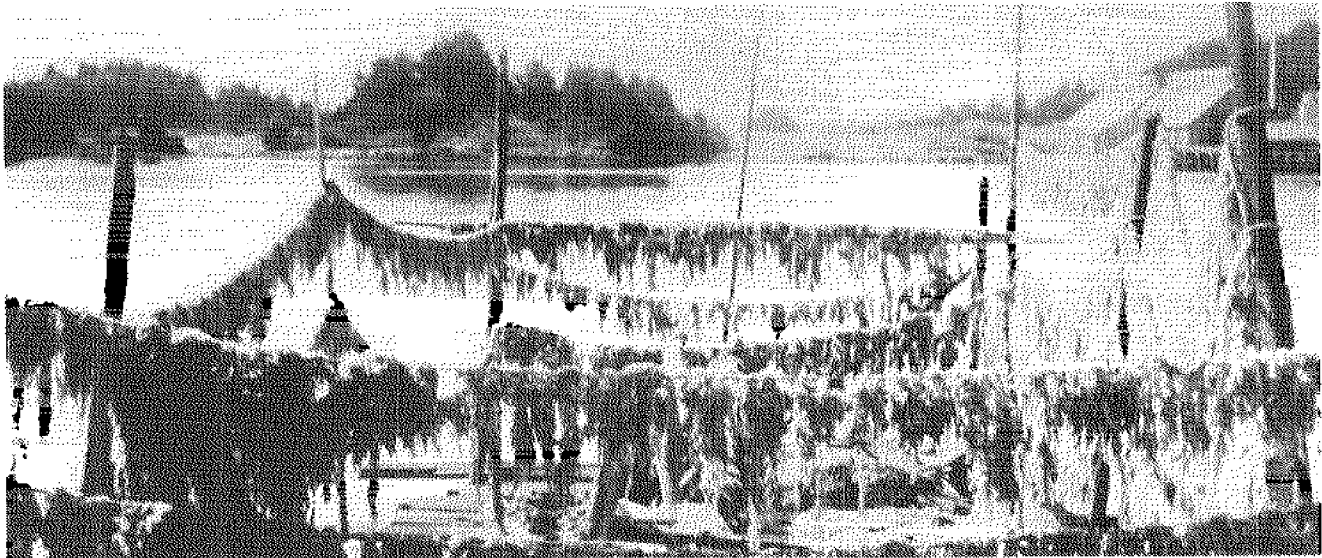
It requires no little skill to land a hundred-pound halibut in a light fishing canoe. A primitive halibut fishing outfit consists of kelp-lines, wooden floats, stone sinkers, an anchor line, a wooden club, and wooden fish hooks.¹⁴⁵

"Trash" fish, such as sculpin and rockfish, were unable to get their blunt heads far enough into the halibut hook to steal the bait or get caught. Only a flat-headed fish, such as halibut or flounder, could reach the bait. The stems of the kelp were cured in the smoke or sun and were simply knotted together to form the lines.

This kelp grows in from 3 to 30 fathoms, or deeper. At the root it is about one-fourth inch in diameter, and solid, expanding upwards and becoming hollow about half way up. Its upper end is surmounted by a large hollow bulb, from which floats long, streamer-like, or lanceolate leaves. These are great rock or shoal indicators, and are invaluable "notices to mariners."¹⁴⁶

Herring were found in early summer months in numerous parts of the coast. They ran in large shoals and attracted other fish, porpoises, whales, and flocks of birds. They were dipped out with nets or baskets, caught with drag nets, or taken with rakes. The rake consisted of a long, flat board with sharp bone, copper, or iron points set in one edge. The Tlingit fisherman propelled his canoe into the midst of a school of herring and beat the water with his pole, bringing forth a herring transfixed on each point at nearly every stroke. Canoe-fish could be obtained in a short time.

Herring eggs were also gathered. Hemlock boughs were spread and fastened during low tide on the beaches of bays known to be spawning areas for herring and, after the fish deposited their spawn, the branches were collected again and hung to dry. The eggs were scalded to loosen them from the branches and were then dried or mixed with fat and stored for winter use.



Herring eggs drying at Sitka in the spring, about 1910. Alaska State Historical Library, Merrill collection.

144. Krause, *op. cit.*, pp. 123-4.

145. Niblack, *op. cit.*, p. 299.

146. *Ibid.*, p. 292.

Most of the Tlingits did not hunt whale; they disdained whale meat.

For superstitious reasons the whale has never been hunted in this last named locality (amongst the Tlingit, Haida and Tsimshian), and the eating of whale's blubber has been prohibited to them by tradition and custom. Where whalebone is found in use amongst them it has reached them in the way of trade from the north or south.¹⁴⁷

But there are reports in both Krause¹⁴⁸ and in Birket-Smith¹⁴⁹ of some whaling being practiced by the Tlingits. And the latter reports that although there was no evidence of harpoon whaling by the Haida and Tsimshian they, as the Eyak, had no objection to utilizing the meat and blubber of stranded whales. According to Veniaminof, the Yakutat were the only Tlingit who did not hesitate to hunt whales.¹⁵⁰

Sea otter were once available even in the inner bays of the Tlingit territory.¹⁵¹ They were valued for the pelts so sought by the early white traders and as a staple article of trade amongst the Indians themselves. It is likely that the Tlingit also ate the meat. The Tlingit were not so expert as the Aleut in surrounding and killing the sea otter.

The Sitka people are not so expert in hunting as the Aleutians. Their principal mode is that of shooting the sea animals as they lie asleep. As they cannot destroy many in this way, the sea-otter abounds in their neighborhood. The Aleutians, on the contrary, from their skill, are sure to commit dreadful depredations wherever they go.¹⁵²

Seals were hunted in practically the same way as the otter, with additional emphasis given to taking them in shallow water or on rocky ledges near the shore to prevent them from sinking.¹⁵³ They might be speared on the rocks or taken from a canoe in which one man acted as harpooner and a companion as paddler. Wounded seals were dispatched with a club or

even hunted with the club alone. The harpoon used in killing the hair seal, sea lion, and porpoise had a single foreshaft with a long, multiple-barbed bone point.

Some were made with a detachable foreshaft: the point was connected to the foreshaft by a short lanyard, and foreshaft to the shaft by another, and the shaft carried a long line which the harpooner held or made fast to a canoe thwart... These several joints produced a sort of shock absorber effect when the struck quarry lunged, minimizing the strain on each individual part.¹⁵⁴

Fur seal were probably seldom pursued by most Northwest Coast Indians in aboriginal times. The main migration route of the herds was farther offshore than the natives ventured, and the price of fur seal pelts was likely too low to interest the Tlingits. The Haida and Coast Tsimshian were the main exceptions.

While hunting of sea mammals had a definite economic value, it yielded even greater returns in prestige to the participants.

Subsistence from the Sea

The seasonal runs of salmon, herring and olachen set the pattern for the yearly cycle of economic activities. There were periods of intense activity, which put a premium on discovering methods for preserving the quantities of fish, followed by lengthy periods of leisure.

Petroff estimated that a fourth of the catch of fish was consumed in a dried state, much reduced in bulk and weight. He concluded that each man, woman, or child consumed the equivalent of approximately 4,000 pounds of fresh fish per year.¹⁵⁵

147. Niblack, *op. cit.*, p. 292.

148. Krause, *op. cit.*, pp. 124-5.

149. Birket-Smith, *The Chugach Eskimo, op. cit.*, p. 196.

150. Krause, *op. cit.*, p. 66.

151. DeLaguna, *The Story of a Tlingit Community, op. cit.*, pp. 93-94.

152. Lisiansky, *op. cit.*, p. 242.

153. Niblack, *op. cit.*, p. 300.

154. Drucker, *op. cit.*, p. 32.

155. Petroff, *op. cit.*, p. 70.

Around the summer camps, at all times, can be seen strips of halibut or salmon suspended in the smoke of dwelling-houses, or drying in the open air on frames erected for the purpose. (Ordinarily the coastal area was too damp for sun and wind drying). In the summer season there is an abundance of all kinds of food, but the energies of the Indians are directed to laying up a stock for winter's use. Halibut abound from March to November, and are readily caught on their favorite banks, known to the natives who camp near such localities. Halibut and salmon, fresh and dried, form the basis of the food supply. The salmon are caught during the "runs." After the daily wants are supplied, and a sufficient number dried for winter's use, the surplus fish are converted into oil. This oil, as well as all other kinds, is used as a sauce, into which nearly everything is dipped before eating. Seal and porpoise . . . is esteemed a great delicacy . . . Any kind of meat of wild animals is eaten when procurable, but it is only in recent years that they have ever salted down or dried meat for winter's use. Other kinds of fish, such as cod, herring, and eulachon, are much esteemed. During the run of herring large quantities are dried or pressed into oil . . .

The roe of fish is esteemed a great delicacy, and great care is taken to collect it in the water, or remove it from captured fish. It is either eaten fresh, or dried and preserved for winter's use, when it is eaten in two ways: (1) It is pounded between two stones, diluted with water, and beaten with wooden spoons into a creamy consistency; or (2) it is boiled with sorrel and different dried berries, and molded in wooden frames into cakes about 12 inches square and 1 inch thick . . . Dried fish, bark, roe, etc., are eaten with grease or oil, as before stated. Salmon roe is buried in boxes on the beach, washed by the tide, and eaten in a decomposed state. The heads of salmon and halibut are esteemed a great luxury when putrefied in the tide or salt water. Meat is either broiled on a stick, roasted on hot stones, or boiled in a kettle. Before the introduction of kettles, meat was boiled in a wooden dish or watertight basket by means of red hot stones added to the water. Fresh fish and cuttlefish are always cooked. Oil is extracted from the livers of dog fish and stranded sharks and whales, to sell to the

whites. Oil is obtained in different localities from salmon, herring, eulachon, and pollock. The fish is usually allowed to partially putrefy and then boiled in wooden boxes by means of hot stones dropped in the water. The grease or oil is skimmed from the surface. ¹⁵⁶

In addition to the fish, the sea provided numerous edible shellfish and plants-crabs, sea urchins, small gastropods such as limpets and periwinkles, oysters in some localities, clams of many kinds, and mussels. Large mussel shells were ground sharp to form the woman's knife. Deep clam shells made spoons. Shellfish were not eaten during the summer because of the danger of poisoning, but during other seasons were an important part of the diet.

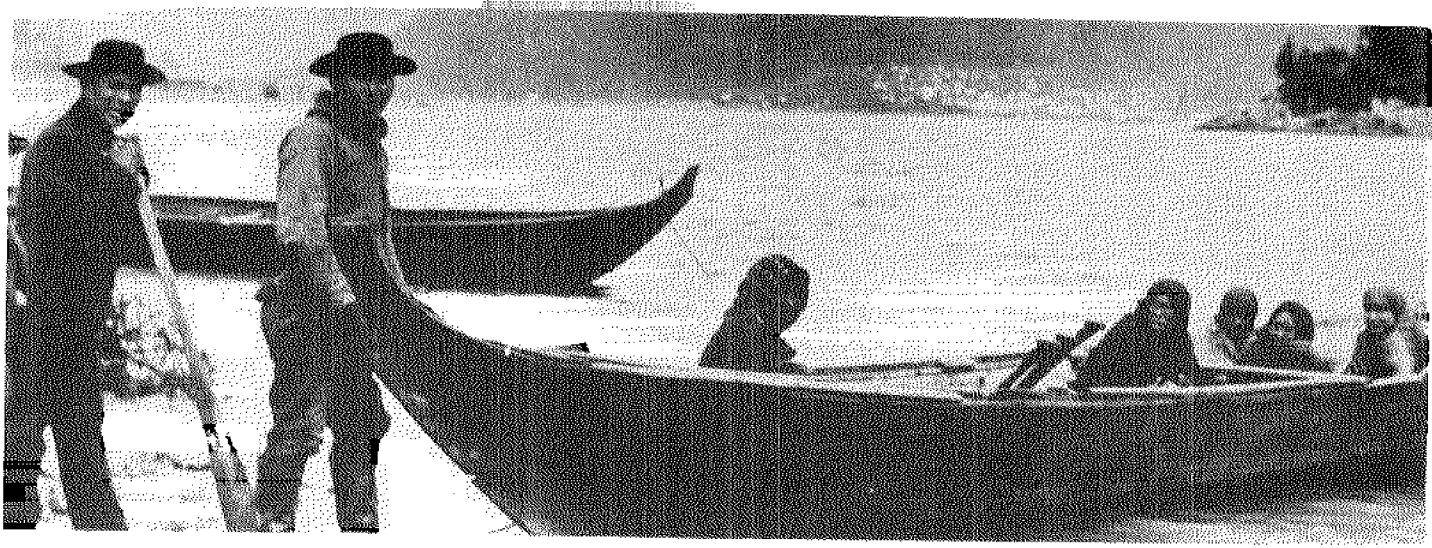
Boats and Travel

On the Alaska coast the water is the common highway. . . . The Indians make all their journeys by canoes, and in handling of these they are most expert. A child is scarcely out of its cradle before a tiny paddle is thrust into its fist. Infants not more than three or four years old may be seen paddling for hours at a stretch. Thus trained from childhood, these Indians are enormously strong in their arms and hands, and can accomplish a wonderful amount of work of this kind without showing fatigue. The upper part of the body is much more robust than in the Indians of the Plains. ¹⁵⁷

The large cedar trees of the coastal area furnished material for canoes capable of long voyages and able to carry whole families and tons of freight. Generally, there were four kinds of canoes on the northwest coast: Hunting and fishing canoes which were light and portable, carrying from one to three people; family and transportation canoes which were twenty-five to thirty-five feet long and carried whole families with trading supplies and provisions, and in which even the youngest children were reported to have wielded paddles; voyaging canoes and war canoes which were practically the same in

156. Niblack, *op. cit.*, pp. 276-278.

157. George Bird Grinnell, "Natives of the Alaska Coast Region", *The Harriman Alaska Expedition 1899* (New York: Doubleday, Page & Co., 1901-14), Vol. 1, p. 140.



Tlingits and two dugout canoes on Treadwell Beach, with Juneau in background, 1887 or 1888. The family size, utility canoe in foreground may be either spruce or cedar. Alaska State Historical Library, Partridge collection.

size and shape, being thirty-five to sixty-five feet long with a six-to-eight-foot beam.

When it was reflected that these large canoes, often with five tons capacity, are hewn from a single log, our marvel at the skill displayed in their construction is decidedly increased.¹⁵⁸

Often in the past they were painted at bow and stern in elaborate totemic patterns. Wood was in abundant supply. Straight red cedar trunks were most sought for the canoes. Red cedar does not grow north of approximately the latitude of Wrangell. The Tlingits from there northward depended on the spruce, from which they hewed only relatively small canoes, or purchased their canoes from the people to the south, particularly the Haidas. The trunks were hauled out and rough-hewn to somewhat the proper shape during the summer season. The final work was left until winter. The rough work was done with wedges and sledges, and the finishing work with an adze. Near the end of the adzing of the canoe, the canoe would be filled with water heated by hot stones. When the wood was softened, thwarts could be forced into the sides, gradually stretching the canoe to one and one-half times the diameter of the log, making a more stable and seaworthy craft. Sharkskin was used as sandpaper in the final finishing process.

The canoe was handled by the Tlingit with great care. It was carried, not dragged, over

stone or rocks when landing and placed beyond the reach of the tide. When idle on the beach the canoe was protected from the sun by a covering of branches or moistened blankets.

In spite of the skill with which the Tlingit handle their canoes they did not like to risk the open sea in stormy weather. If, however, they are overtaken by bad weather during a trip, they show themselves equal to the danger. With keen attention they watch every oncoming wave and, if an unusually high one threatens to overturn the light canoe, they strike it with flat paddles which gives the impression that they are pushing the sea down, while in reality they push the boat toward the crest of the wave.¹⁵⁹

The canals navigable by small boats and canoes are countless. Many of them are not well marked even on the newest maps and are known only to the natives who use them for fishing and hunting. A more favorable territory for canoe travel can hardly be imagined, fjords penetrate deep into the mainland and the larger island groups, and many portages shorten distances where there are no direct connections from one inlet to another.¹⁶⁰

The Tlingit undoubtedly preferred water travel to any other method of transport. He may not have made long voyages over the open sea, but he was a sufficiently competent mariner to cruise coastwise on voyages of several hundred miles.

158. Niblack, *op. cit.*, p. 295.

159. Krause, *op. cit.*, p. 120.

160. *Ibid.*, p. 51.

... in the northern, more rugged half of the area it seems probable that a certain minimum proficiency in canoeing must have been essential to the earliest human occupancy; it is difficult to see how people could have survived without it. At the same time, it is possible to interpret the richness of the fisheries resource as a limiting factor also; concentrated, as the "runs" of salmon and the other fish were, at the upper ends of bays and channels or along the beaches, they may have restricted interest in water transport to the foreshore. It is certain that the Indians of the Northwest Coast were not deep-sea navigators in the same sense as the Vikings or the Polynesians. They sailed along the coast, from point to point, and hated to get out of sight of land. ¹⁶¹

Land travel is simply impracticable. Nobody goes on a road; savages and whites all travel by the water. ¹⁶²

In common with all the northwest coast people the Tlingits have inherited a magnificent development of the shoulders, chest and arms. This is undoubtedly the result of generations of canoe paddling. The rest of the body is, however, usually stunted and deformed. They are bow-legged and shambling in gait, moving much as aquatic birds do on land. ¹⁶³

During the summer, they wander from one bay to another, searching for food like sea wolves; ... Although they always go barefoot, the soles of their feet are not at all calloused, and they are unable to walk on stones, which proves that they travel only by canoe or on snow with snowshoes. ¹⁶⁴

The habit of frequent bathing in both winter and summer hardens their physique. As soon as a child is able to leave its cradle it is bathed in the ocean everyday without regard

to season, and this custom is kept up by both sexes through life. This, with scant rappings, kills off the sickly children, and hardens the survivors. ¹⁶⁵

While all the northern tribes made both large and small canoes of this style, the Haida canoe makers were especially esteemed for their craftsmanship, and the mainland groups sought to buy the Haida-built craft when the tribes assembled at the olachen-fishing grounds on the Nass River every spring. ¹⁶⁶

Before the sea otter became extinct they were hunted well out at sea, the Haida being particularly venturesome and successful, and hence rich, and respected accordingly. ¹⁶⁷

Marine architects today consider the canoes used by the Northwest Coast Indians excellent and seaworthy in design. Haida tales dwell on the dangers of only one defect, a tendency to split when in heavy, quartering seas. The Haida Islands were most unprotected and exposed to such dangers.

The Tlingits particularly seemed to have a real inability to stand a peaceful and quiet existence. Their strong sense of personal property rights, and perhaps actual population pressure in the north in aboriginal times, helped establish patterns of continuous warfare which both promoted and impeded the use of coastal waters. Open warfare could be avoided by feasts of reconciliation. ¹⁶⁸ But true warfare, aimed at exterminating another family in order to acquire its lands and goods, was a well-established practice.

Living, as they do, without any form of political organization, they are continually excited by fear or by desire for vengeance; violent and irascible, they are ceaselessly armed against one another. ¹⁶⁹

Their wars have been characterized by

161. Drucker, *op. cit.*, p. 4.

162. Petroff, *op. cit.*, p. 48.

163. Ernest Ingersoll and Henry Elliott, *In Richest Alaska* (Chicago: The Dominion Company), p. 235.

164. La Perouse, *Voyages and Adventures of La Perouse*, trans. Julius S. Gassner (Honolulu: University of Hawaii Press, 1969), p. 38.

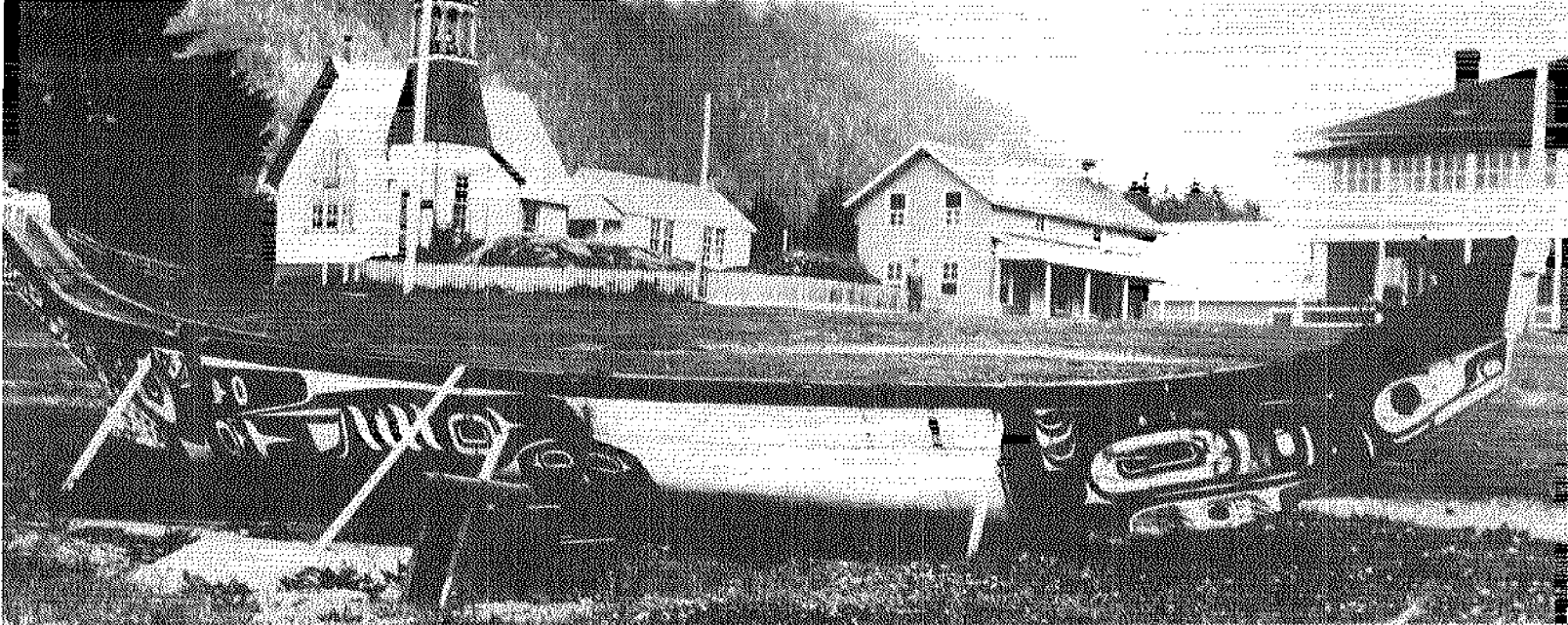
165. Niblack, *op. cit.*, p. 237.

166. Drucker, *op. cit.*, p. 63.

167. Niblack, *op. cit.*, p. 296.

168. Krause, *op. cit.*, p. 169.

169. La Perouse, *op. cit.*, p. 35.



Haida war canoe at Sitka, given to Governor Brady for the people of Alaska by Chief Sonihat of Kasaan, 1904. Alaska State Historical Library, Merrill collection.

treachery, surprise, ambush, night attack, superior numbers on the aggressive side, massacre of women and children, impressment into slavery of the prisoners of war, and scalping of the slain enemies. Fair fight, excepting in duels, seems to have been unknown or unrecognized.¹⁷⁰

The raid staged on the occasion of the death of an important person, whether or not he had died from natural causes, was a typically northern custom. The usually expressed purpose was that of 'sending someone with the dead chief,' or of 'making other people mourn also.' Such a party usually attacked and slew the first persons they met; sometimes even their own village mates were not exempted if the raiders encountered them offshore in a canoe.¹⁷¹

Feasts were connected with the most diverse occasions—birth and death, reconciliation, and successful hunting and war parties, etc. These affairs were probably the major social functions of the Haida, Tlingit, and Tsimshian and occasionally included invitations to members of all three tribes in their distant villages. Invitations to individuals from distant villages were usually

part of a potlatch given by a chief. Veniaminof reported that because of its great expense, the anniversary feast in memory of deceased relatives had almost ceased to exist by his time.¹⁷² But Petroff provides this account: "Guests are invited from many distant settlements, and all these must not only be fed, but also loaded with presents... Sometimes these festivities are confined to one family, sometimes a whole settlement is invited. Long before the period agreed upon arrives messengers are sent out near and far to call the guest from distant clans and tribes, not by name, but simply saying that all may come who wish to do so."¹⁷³ Even women and children were sometimes included.

There was considerable trade among the Tlingits, Haidas and Tsimshians. In addition, more distant coastal and remote interior tribes carried on an active trade through to the Tlingit. Copper came from the Eyaks in the Copper River area and was used for arrow points, lance points, and daggers. Even food was an important article of trade. The oil of the candlefish was available early in the spring when stores of dried food were apt to be low and fresh food was still scarce. Trade was carried on in slaves. The

170. Niblack, *op. cit.*, p. 340.

171. Drucker, *op. cit.*, p. 136.

172. Krause, *op. cit.*, pp. 162-173.

173. Petroff, *op. cit.*, p. 171.

routes along which the items received from European trading vessels moved into the interior and north were ancient trading routes.

...we can see it even today in the household possessions of the Tlingit, which are the products of many different places. The caribou skin which the Chilkat use for their clothing, the sinew with which they sew, the lichen with which they dye their dancing blankets are all secured through trade with the Athapascan-speaking Indians of the interior. The dentalium, the sharks' teeth and pieces of mother of pearl... which they wear as jewelry in their ears or hang as pendants, on a thong around the neck come from the south, principally from the Queen Charlotte Islands.¹⁷⁴

The entire southeastern area was patched upon the solid body of the Russian possessions simply through the ambition of Baranof. Prior to Russian arrival, the Haidas were advancing to the north. The Tlingit population was advancing to the north and west, pushing the Eskimos off Kayak Island and forcing the Eyak to warfare with the Eskimos. While the Russian American Company traded with the natives at Sitka, the American and English ships plied a trade, not really legal, but generally unhindered by the

Russians, in the inner archipelago. The Chilkat were the middlemen between the interior and the coast and guarded their trading trails as zealously as they did their hunting and fishing territory to prevent the white men from trading directly with the Athapascans. At the beginning of the 19th century, Baranof estimated that 120,000 sea otters were carried away by the foreign traders. These seagoing traders differed in one very important respect from traders on the shore. Many did not intend to return. The warlike nature of the Southeastern Indians was all that protected them from outright piracy.

And I am extremely concerned to be compelled to state here, that many of the traders from the civilized world have not only pursued a line of conduct diametrically opposite to the true principles of justice in their commercial dealings, but have fomented discords, and stirred up contentions between the different tribes, in order to increase the demand for these destructive engines. They have been likewise eager to instruct the natives in the use of European arms of all descriptions; and have shown by their own example, that they consider gain as the only object of pursuit...¹⁷⁵



Killisnoo Natives (Tlingits) arriving at Sitka to attend potlatch December 28, 1904. Alaska State Historical Library, Case and Draper collection.

174. Krause, *op. cit.*, p. 127.

175. George Vancouver, "A Voyage of Discovery to the North Pacific Ocean and Round the World", *Captain Vancouver in Alaska*, ed. and annot. Melvin B. Ricks (Los Angeles, 1954), Vol. II, p. 59.

For several thousands of years the Eskimos in the coastal villages of northwest Alaska have enjoyed the benefits of living in one of the best sea mammal hunting areas of the world. The productive potential of the environment is great, and the hunting methods used were successful for an astonishing range of sea mammals, from the small ringed seal to the large bowhead whales.

...no truly primitive group could possibly exist under such conditions. Only by means of a highly complex technology and through a highly developed knowledge of natural phenomena could human beings penetrate the Arctic. ¹⁷⁶

By 500 A.D., groups of villages along the coast were occupied by people who had successfully made a gradual adaptation to the open sea and the ice. These people turned from their previously dominant inland winter caribou hunting and fishing life toward the sea, drawn by the summer attractions of the walrus herds and the bearded seal and ringed seal, which could be harpooned on the pack ice in the spring and early summer. Sea mammal hunting became their main occupation, and they developed the techniques necessary to thrive, such as the inflated float attached to the

harpoon line, without which it was impossible to secure prey as large as whale.

The area between Barrow and Barter Island may have been sparsely populated in aboriginal times. But Barrow itself and the Point Hope location have been continuously occupied with varying populations for thousands of years. Ipiutak at ancient Point Hope is estimated to have once had a population of 1,500 inhabitants. ¹⁷⁷ Generally, the coastal villages were smaller but more numerous than they are today.

Increasingly, these Arctic inhabitants had to acquire knowledge of the nature of the ice and the means of Arctic survival. Dependence on sea mammals caused subsistence activities in the coastal settlements to closely reflect the cyclical movements of the sea ice. The Arctic Eskimo learned the habits of the animals upon which his life depended. When and why they arrived and departed; when and where they gave birth to their offspring; where they fed and slept, and what habits they had that made them vulnerable to a hunter.

But in addition to the behavior of the game, the behavior of the ice itself needed to be understood. It is in the adaptation of their winter life to the ice that the Eskimos reached their greatest achievement. The hard surface upon which the Eskimo traveled expanded in some areas by 200 percent during the winter, and required extensive changes in equipment and habits.

176. Helge Larsen and Froelich Rainey, *Ipiutak and the Arctic Whale Hunting Culture* (New York: American Museum of Natural History, 1948), p. 27.

177. J. Louis Giddings, *Ancient Men of the Arctic* (New York: Alfred A. Knopf, 1967), p. 117.

The visual cues are small, consisting of subtle changes in the color of the ice, of small patches of snow which reveal wind direction and force, of water texture and slight indications of tidal changes and currents. Even these minimal cues may be obscured by fog, snow, wind, rain, glare, darkness, and low level contrasts that camouflage the animal as well. The anxiety levels generated by this rigorous life have serious implications for the community as a whole.¹⁷⁸

Eskimos in each location accumulated detailed knowledge of the factors controlling ice formation and ice characteristics. In many areas sea ice, continuously subject to the will of the wind and the forces of current, is dangerously, constantly in motion "with a hugeness which betrays tremendous power."¹⁷⁹ But it is this same mobility that creates the open leads offshore which are sought by the game and therefore the hunters. The landfast ice itself is anchored solidly to the bottom, and it is only the ice beyond that moves with the wind and current. Leads of several hundred yards to several miles open on ice which is attached to the landfast ice, but not grounded itself. The new sea ice was formed at sea, carried ashore, and grounded, appearing first at Barrow in late September or early October and finally at Point Hope late in October. Generally there is landfast ice all along the Arctic coast, building itself outward miles from the coast. However, in some areas, such as Cape Lisburne, the depth of the water prevents formation of landfast ice. The Point Hope location is excellent for hunting, with open leads close to the village all winter and spring. The ice here is highly mobile and dangerous; powerful winds and currents keep the distance to the lead short.

The Point Hope Eskimos are considered fortunate because leads for seal and whale hunting usually open very close to the land, compared with villages to the north and south. Leads also form fairly near the coast at Point Barrow, but the situation is not as good as at Point Hope. By contrast, Wainwright men must travel several miles, sometimes 10 or more, to reach open leads for sealing, and they have been known to do their whaling at leads 20 miles from shore.

Sometimes a crew will even travel as far as Icy Cape or north to Point Belcher to take advantage of closer leads which remain open longer and a great abundance of whales. This habit of traveling far out onto the sea ice sometimes exposes them to a greater risk of being cast adrift.¹⁸⁰

Eskimos usually smooth a trail through the rough ice from the village to the edge of the landfast ice.

Obviously, the hazards of such an existence are great. No Eskimo went out on the ice unprepared for emergencies. The penalties for mistakes were too quick and violent.

The need for these people to work together and share the proceeds of their efforts is obvious.

The concept of safety in numbers is important in many Eskimo hunting practices on the ice, where men usually stay fairly close together, but far enough apart to have a good chance for game. There is a long-standing tradition of hunting partners...¹⁸¹

The best method for crossing thin ice was to imitate a polar bear.

In essence it consists of spreading the legs as widely as possible, while still retaining good coordination, and sliding the feet along quickly and evenly without lifting them from the ice. The vital principle is to keep moving and never stop the fast, even pace until safe ice is regained... If the ice is too thin to walk over on foot, the polar bear imitation is carried further by getting down on all fours with arms and legs again spread widely. And, this failing, there is no choice but to lie flat on the ice, arms and legs stretched out, and squirm along... Certain men were most expert at walking on young ice, and it was considered best to learn this skill from them... The story is told of an old man from Point Hope who lived at Wainwright, and who was the expert-of-experts at walking on thin ice. They say that this man once shot at a seal that had poked its head up through the young ice to breathe. He missed the seal and

178. Richard K. Nelson, *Hunters of the Northern Ice* (Chicago and London: The University of Chicago Press, 1969), p. xiv of introduction by William Laughlin.

179. *Ibid.*, p. 9.

180. *Ibid.*, p. 38.

181. *Ibid.*, p. 26.

wanted to see where his bullet struck the ice, so he walked out to the place where the seal had come up. He could not stop lest he plunge through the flexing ice, so he circled quickly around the hole, checking for bullet marks, and then walked back to solid ice. The new ice was so thin that the front of his foot broke through with every step, and yet he could still stay on top.¹⁸²

Much of the danger of sea-ice hunting has to do with being cast adrift, although deaths from drowning, freezing, or attack by polar bear were ever present possibilities.¹⁸³ The margin for error permitted by the environment was very small.

In addition to concern about the current and wind, the hunter in judging the safety of ice needed to judge the occurrence, direction, and movement of cracks in the ice. Cracks ranged from an inch to several yards across, but any crack was a prospective lead and a prospective trap. New cracks were particularly dangerous because their movement had not yet stabilized. Cracks at right angles to the coast still allowed fairly safe movement over the ice.

Eskimos regard motion of cracks as very serious, and are easily discouraged from traveling farther if there is evidence of pressure being exerted on the ice . . . Cracks that show any motion whatever are very important, because they could begin large-scale movement at any time. Sometimes they close with such rapidity that water is forced up out of them in a spray. They can open equally fast.¹⁸⁴

More than anything else, wind dictated daily activities. Even in the coldest winter the ice is liable to displacement and pressure by the currents of air and water. The time of arrival of sea mammals depended upon this movement of the sea ice. Winter storms opened the leads, providing seal, or closed the ice so tightly that there was no chance for food. When the Arctic Eskimo makes a weather forecast, he reports wind conditions, not precipitation or temperature or clouds. Along the coast from Point Barrow to Barter Island, the ice is

relatively stable. But between Point Hope and Point Barrow, the ice is very mobile. It is almost everywhere an expanse of piled, twisted, jumbled floes which grind solidly together during the entire winter season, frequently cracking and opening leads. Ice remains unmoved all winter only in deep bays or small, protected areas. Winds were judged as to their effect upon visibility and upon cracks and leads for seal hunting. The firm ice needed for pursuit of the polar bear could also be subject to change by the wind. Clouds, stars, temperature, and winds all served as storm predictors prompting reactions in dogs, seals, and men.

If seals in an open lead stay up on the surface looking around or resting for long periods of time and appear to be in no hurry to go anywhere, either the weather will remain good or the wind will calm down. On the other hand, if they rise only briefly in one place and do not appear there again, and if their heads remain low in the water rather than coming up high, it is a forewarning of the beginning or continuation of a storm. This applies during any time of year except when the seals are migrating in early summer.¹⁸⁵

Spring wind determined the success of the whaling and summer winds influenced the movements of the ice pack and therefore the availability of mammals and birds. Spring travel over the ocean ice became increasingly tedious, and snowshoes came into use for walking on the rotting ice.¹⁸⁶ Once the landfast ice was gone the Eskimo's activities were greatly altered. The disappearance of the ice meant not only a change of method, but also of quarry. Currents carry with them animals of the sea—whales, seals, and walrus. The "road" out to the open leads was gone, and the natives turned to boats.

Alert to moving ice or an approaching polar bear, creative enough to spot even the possibilities of turning frozen meat into an emergency sled, perseverant and foresighted in the extreme, the Eskimo hunter became

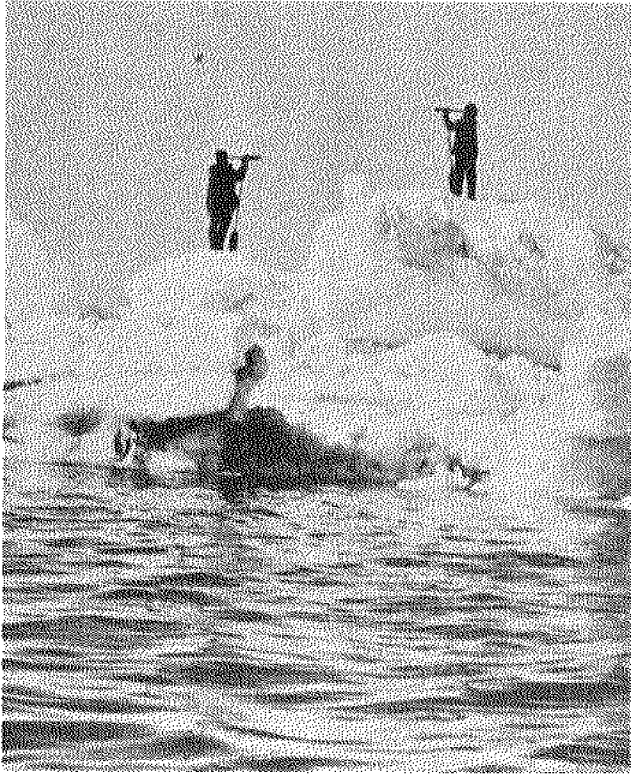
182. *Ibid.*, pp. 21-23.

183. E.W. Nelson, *The Eskimo about Bering Strait*, 18th Annual report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution (Washington: Government Printing Office, 1899), p. 120.

184. Richard K. Nelson *op. cit.*, pp. 54-55.

185. *Ibid.*, p. 46.

186. E.W. Nelson, *op. cit.*, pp. 212-214.



Eskimo hunters adrift on ice floe. University of Alaska Archives, Geist collection.

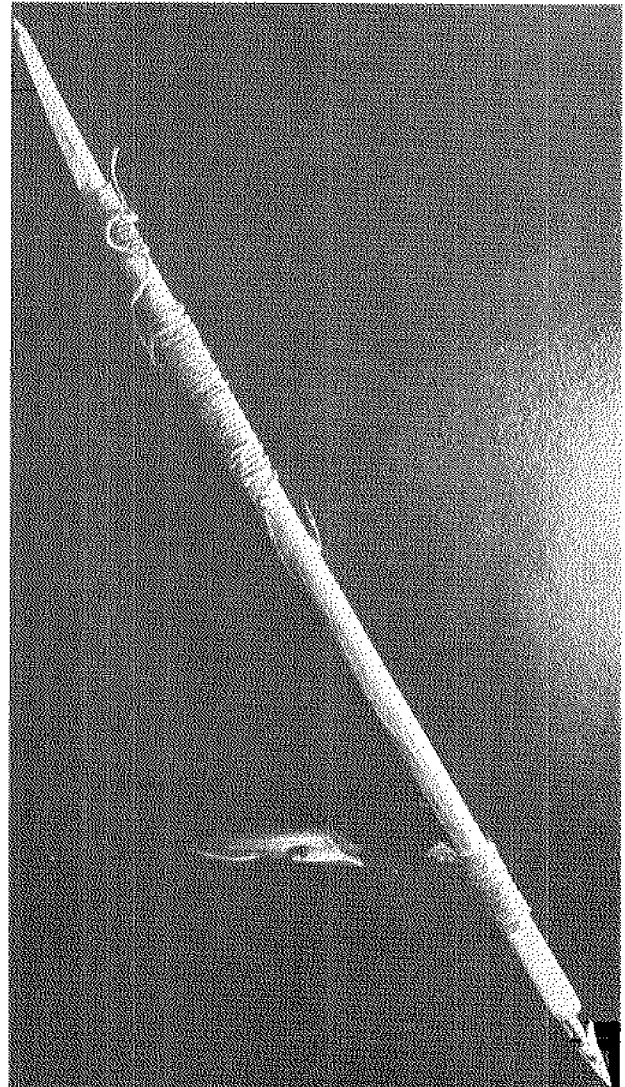
knowledgeable about every aspect of the environment he exploited.

Life in the Arctic makes great demands upon animals no less than upon man, and it has been pointed out that those mammals which are able to live there belong to species which are the most highly developed of their kind, and that only a few have stood the test of Arctic conditions.¹⁸⁷

Because the diet was exclusively meat, it is to be expected that tremendous quantities were consumed, as much as eight pounds of meat per day per person. Dogs consumed an almost equal amount. Based on these figures a family of ten with eight dogs would require 125 pounds of meat per day.¹⁸⁸ Even though immense supplies of meat were piled up after whaling and walrus season and fish, caribou and waterfowl in addition, the failure of one source of supply could mean short supply for the winter.

Hunting is a complex activity involving various procedures, beginning with superstition and scanning, and ending with retrieval and distribution. An animal did not object to being killed as long as it was taken properly and respectfully.

Harpoon assembly. University of Alaska Archives, Van Valin collection.



187. Birket-Smith, *The Eskimos* (New York: E.P. Dutton & Co., 1936), p. 85.

188. Robert Spencer, *The North Alaskan Eskimo*, Bulletin 171 of the Bureau of American Ethnology (Washington: Government Printing Office, 1959), p. 142.

The most important hunting weapon... was... the harpoon, which has been developed by the Eskimos in a most ingenious way... It consists of an ivory or bone toggle harpoon head, with a line of seal thong fastened to it, which, depending on the method of hunting, either is attached to an inflated float made of sealskin with a bone mouthpiece, or is held in the hand. The harpoon rests loosely in a bone or ivory foreshaft which in turn is attached either fixed or movable, to a wooden shaft. The harpoon was used in summer, in hunting seal from the kayak; in autumn, in smooth-ice

hunting, when the hunter noiselessly approaches the spot where a seal is breathing; in winter, when tedious waiting at breathing-holes is necessary; in hunting walrus from the edge of the ice or from an umiak; and in whaling from an umiak.¹⁸⁹

A lance was used to kill the animal when it had become exhausted. Harpoons for hunting walrus and whale were correspondingly larger, and those for breathing hole hunting had an ivory or bone pick at the butt end for testing ice and walking over broken ice.

Spring

The arctic whaling pattern is old, extending back--perhaps not continuously--to 1800 B.C. in the Cape Krusenstern area. The hunting of the great whales from an open skin boat with the use of a toggle-headed harpoon sets the Arctic coastal inhabitants apart from all other Alaskan Eskimos. Between Point Hope and Point Barrow, although people fished and hunted other land and sea mammals, all other subsistence activities were subordinated to the specialized pursuit of the whale. The most stable and successful communities were those of arctic whale hunters located at favored points of coastal land from Point Barrow to Sledge Island. Comparatively large numbers of people lived in each community. By March all other work was put aside and final preparations began for spring whaling. The season itself began in early April at Point Hope and about three weeks later around Barrow. By this time an offshore wind had opened leads between the landfast ice and pack ice. Bowhead whales arrived at the same time as the small belugas, but the hunting at this season was confined mainly to the bowheads. Seals

were always abundant, and the whaling umiaks usually caught a good many. Gear and umiaks were made ready both practically and ceremonially.

... there is on the whole no animal, either among these or other Eskimos, whose hunting is so hedged by strict taboo, magic formulas and the use of amulets. And considering the size of the animal and the dangers attached to the hunt, this is not surprising.¹⁹⁰

Everyone in the village participated in some way. A road was built through the landfast ice over which the boats could be hauled out to the lead. Ice cellars needed to be emptied of any meat remaining from the previous year. A whale could not be approached except by hunters wearing new clothes which had not been previously used in hunting any other animal.

While the outer garments were made of scraped skins, the inner suit was softened but not scraped, fat and sinew being left on.

189. Hans-Georg Bandi, *Eskimo Prehistory*, trans. Ann E. Keep (College: University of Alaska Press, 1969), pp. 10-11.

190. Birket-Smith, *Eskimos op. cit.*, p. 85.



Eskimos dragging umiak over the ice, 1924. Alaska State Historical Library, Rossman collection.

This was water resistant and gave added protection during the long vigils in the intense cold by the ice leads . . . Later, when the whaling was over, the crewman's wife could clean the skin clothing and it could be worn for any occasion, although never again for whaling.¹⁹¹

Whalers and their equipment on the polar ice pack. University of Alaska Archives, Van Valin collection.



'Whaling charms had a compulsive effect, serving to bring the whale close to the boat, to make the animal more tractable and amenable to harpooning, to prevent the lines from slipping and fouling, and the like. The theory with respect to the whale was that the whale soul passed into another animal when the whale was killed. Hence, any irregularity of procedure was offensive to the whale. The animal was thought to be able to see from afar the preparations which were being made, and of course to allow himself to be taken by the men. The associated behavior was therefore both to placate the whale and compel his presence by magical means.¹⁹²

A boat owner, or umealiq, was a man known for his success in taking whales, his experience, and his influences. This was a position of both social and ceremonial importance. Each whaling crew, of which each

191. Spencer, *op. cit.*, p. 333.
192. *Ibid.*, pp. 340-1.

village might have ten to fifteen, contained six men. The hunters with their umiaks made their way to the edge of the ice to begin the serious waiting period. Superstition required that no fires be set. Windbreaks were set up, but no tents. Men took turns sleeping, some remaining awake to be constantly alert if a whale were sighted. Women traveled back and forth with food, while observing the pertinent food taboos. Noises were said to frighten off the whale, so the whole community became quiet when the crews were out.¹⁹³

Aboriginally, the harpoon and lance were the usual weapons. Attached to the harpoon were two or three inflated sealskin pokes, each with a buoyancy of 200 to 300 lbs... and a rawhide line connected the floats to the harpoon used. In the spring, boat crews camped on the ice and when a whale was sighted they launched the umiak and approached the animal in such a way that the bow of the boat could be placed on its back, or at least close enough for the harpooner to sink his spear into the thick skin. As other crew members cast floats over the side, the harpooner tried to sink additional spears. The floats had the function both of indicating where the whale was struck and slowing it in its attempts to sound or swim away.



This one-piece, waterproof suit made of sealskin and sewed with sinew thread kept workers dry while they butchered whales in icy, arctic waters. The face is a wooden ceremonial mask, and the white object below the corner of the mouth is a labret made of walrus ivory. University of Alaska Archives, Van Valin collection.

193. *Ibid.*, pp. 332-352.



Whale butchers at work. University of Alaska Archives, Bunnell collection.

When the whale had become tired, the crew could safely approach and the lancer begin his work. The traditional lance was ten to twelve feet in length, tipped with a razor-sharp flint blade. To prevent the whale from sounding, the lancer severed the tendons controlling the whale's flukes, and then probed deeply into its vital organs or pierced a major blood vessel. As the wounded animal went into its death flurry the crew retreated to a safe distance. The dead whale then was hauled onto the sea ice and butchered.¹⁹⁴

Prohibition against using harpoons with iron heads held until the late 1880s. The carcass was towed back to camp by communal effort and divided with elaborate ceremony. Flesh and

blubber were the property of all the people in the settlement; the bone, however, belonged to crews of all the umiaks that were in sight at the time of capture. About a ton of meat per foot came from these fifty foot giants. Meat, blubber, and skin were stored in ice cellars near the village and remained in edible condition for a year. Fresh meat was boiled, but after seasoning in the cellars, all parts were normally eaten raw. The baleen and many of the bones were used in the manufacture of hunting and household equipment. After a whale was divided the crew might leave for another hunt. The season lasted anywhere from two weeks to two months, depending upon the condition of the ice leads. Bowhead whaling was formally terminated with a spring festival marked by social events and the gorging of food.

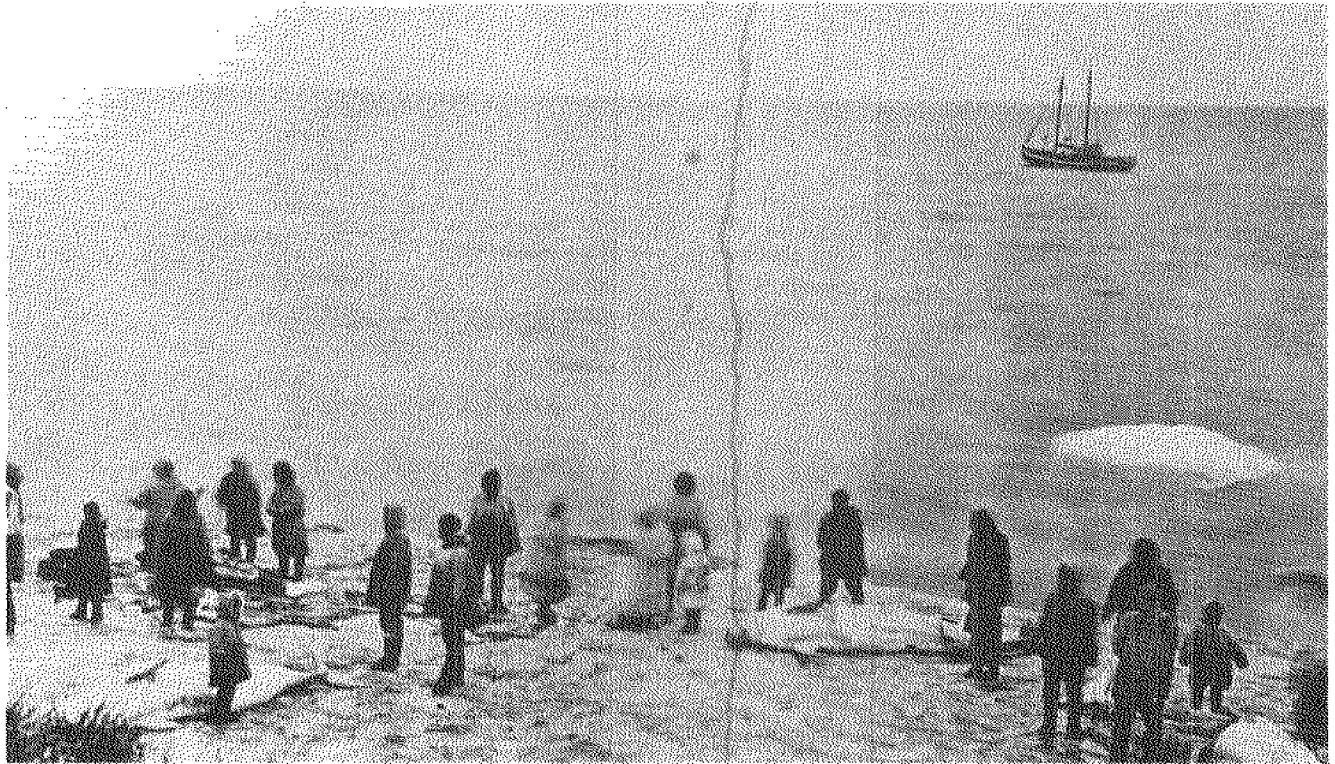
¹⁹⁴. Norman A. Chance, *The Eskimo of North Alaska* (New York: Holt, Rinehart and Winston, 1966), pp. 37-38.

The gray whale arrived in the Arctic area in the latter part of June. It was a dangerous whale to hunt, being inclined to fight back with its flukes upon being attacked.

The small white beluga, measuring twelve to fifteen feet in length and weighing about 1,000 pounds, began arriving in spring. They were accompanied by arctic terns which fed on what the beluga left behind. Beluga were of special importance to the maritime Eskimo in the area between Point Hope and Icy Cape, but were also found along the full length of the westward Alaska coast from Bristol Bay northward to Barrow. The beluga came in huge herds and were taken by the natives from kayaks or by net. The nets were made of sealskin thong of

about the same diameter as medium-sized twine. They were astonishingly strong, being capable of holding a drowning beluga despite his violent struggles for liberty.¹⁹⁵

The "beluga" are hunted in kayacks; a dozen or more natives take up a position near the entrance of some bay, where they can see them as they come in with the tide. As soon as they have passed, the natives paddle out behind them, and, by shouting and beating the water, drive them into shoal water, where they are easily dispatched with flint spears. According to their tradition, to kill the beluga with any other weapon, would entail endless misfortune upon the guilty party.¹⁹⁶



Eskimo hunters and beluga whales on a beach. University of Alaska Archives, Van Valin collection.

195. Harrison Robertson Thornton, *Among the Eskimo of Wales, Alaska 1890-93* (Baltimore: The Johns Hopkins Press, 1931), p. 137.

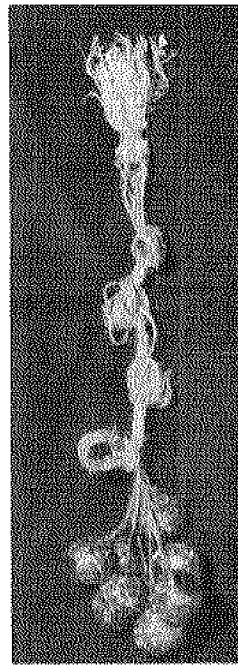
196. Captain C.L. Hooper, *Report of the Cruise of the U.S. Revenue - Steamer Corwin in the Arctic Ocean* (Washington: Government Printing Office, 1881), p. 59.

Summer

... families prepared in early summer for journeys to coastal trading centers, while still others camped near the village and set nets for beluga whales. Local excursions might be made to cliffs where seabirds nested. Here eggs and young birds were collected for food, and mature birds were taken mainly for parka skins. Any caribou wandering along the beaches to escape from mosquitoes were hunted, and along the shore salmon, salmon trout, and whitefish might be netted. Another source of food which might be found along the coast was walrus which had hauled up on a beach. ¹⁹⁷

When the whales had passed other game had to be sought. The element of choice prevailed. The basic home villages were not deserted completely but were often left to the old people and their grandchildren or to men wishing to remain behind for the summer to build an umiak or sled. Tents were substituted as shelter for the summer. Locations were established where caribou could be lanced from kayak as they swam in lagoons. Families might be taken to fishing sites, after which the men returned alone to the home community for the walrus hunt. Bird rookeries at Cape Thompson and Cape Lisburne might be visited. Areas near Cape Smythe and Point Barrow were used as duck hunting stations as were the lagoons south of Icy Cape. The birds were netted, snared, speared from kayaks, or caught by bola. Sculpin, tomcod, and herring were available during May and June, and salmon arrived in July. ¹⁹⁸

A few species only of fish are found in the salt water. Of these the most abundant are the little polar cod... which is plentiful through the greater part of the year, and is often an important source of food, and the capelin... which is found in large schools close to the beach in the middle of summer.



Bolases, "Eskimo shotguns," were made of bearskin and sinew strings and weighted with balls of stone, ivory or bone. Those which were used on the sea had handholds made from feathers to prevent them from sinking when they fell into water. Bolases were used to capture ducks, geese, and ptarmigan before the advent of the white man's shotgun. University of Alaska Archives, Van Valin collection.

There are also caught sometimes two species of sculpins... and two species of Lycodes... In the gill nets at Elson Bay they also catch two species of salmon... and a whitefish... in small numbers, and occasionally a large trout... The last-named fish they find sometimes in great numbers, near the mouth of the Colville. ¹⁹⁹

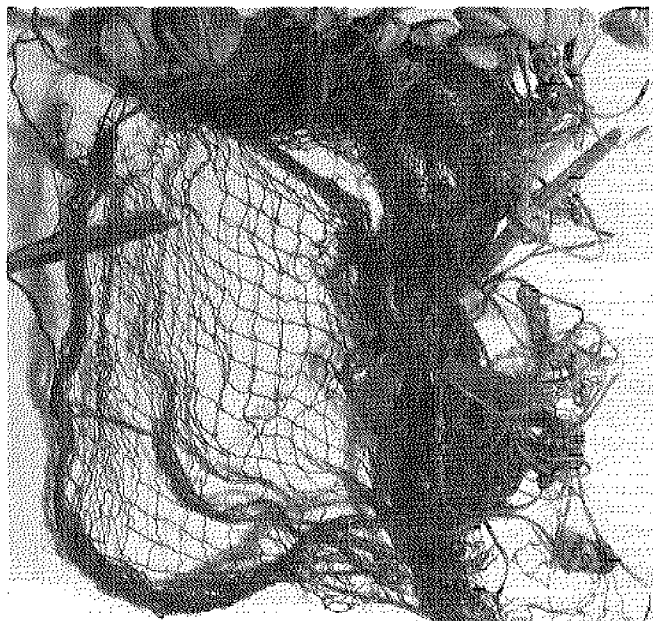
Salmon and other small fish are taken in nets... either by a seine in the ordinary way, or by means of a gill-net, which is set from the shore in a very ingenious manner. This net of seal thongs is from thirty to forty feet in length and about five feet wide; floats of light wood are attached to one side, with pieces of stone for sinkers on the other side, and to the outer end is secured a stone somewhat larger than the rest, serving as an anchor; a number of short poles, about three inches in diameter, are lashed together to a

197. Wendell H. Oswalt, *Alaskan Eskimos* (San Francisco: Chandler Publishing Company, 1967), p. 123.

198. E.W. Nelson, *op. cit.*, pp. 174-183.

199. John Murdock, *Ninth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution 1887-88* (Washington: Government Printing Office, 1892), p. 58.

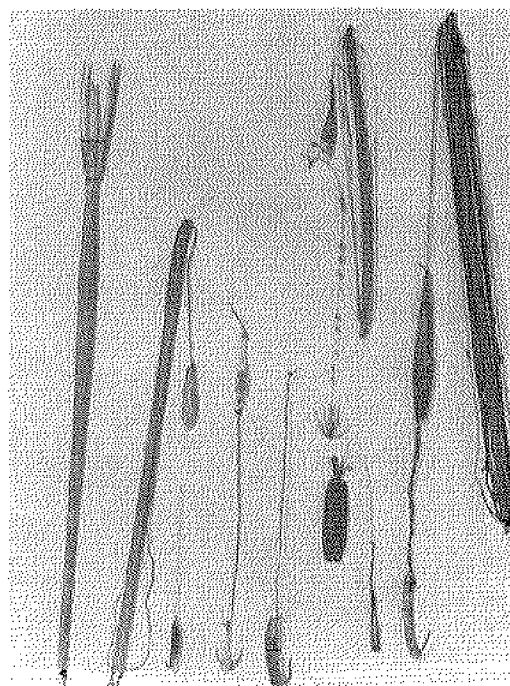
Whitefish gill nets were made of tough, sealskin rawhide string with notched stones for sinkers. The nets were stretched across the mouths of streams and outlets of lakes, and set at right angles to the beach. Sometimes the fish were so numerous that every mesh caught a fish at one setting. University of Alaska Archives, Van Valin collection.



length of sixty or eighty feet, and the end secured to the stone anchor by means of a loop, which allowed the whole pole to be withdrawn after the net is set. This pole is used for pushing the net from shore into the desired depth of water; when let go the net naturally assumes a perpendicular position. The outer end is held in place by the stone anchor, while the inner end is fastened to a line of seal-thong leading to the shore, with which the net is drawn in.²⁰⁰

The seal is the most commonly distributed of all the Alaskan marine animals, occurring along the full range of the coast. Seals, especially the ringed seal, were the mainstay of the economy of coastal Eskimos. They were taken during summer months from kayaks and umiaks, at open leads and breathing holes, as they slept on the ice, and by net.²⁰¹ Their presence was

... chiefly the result of the mobility of the ice. In any region where there is violent ice movement, and consequently much open water, there are sure to be a large number of seals. There is food for seals everywhere in the ocean, but in certain places the ice conditions are such that it is impossible for them to come up and breathe. During the summer they congregate in regions of open water. In the autumn when the ice begins to form, they start gnawing at the covering overhead, as rats will gnaw at a floor board, making the breathing holes that they use all winter. If the young ice remains stationary, the seal remains stationary with it. If it floats in any direction, he travels along with it. His life depends upon his never going far from his breathing hole as long as the ice around it remains unbroken.²⁰²



Fishing poles, hooks, lines and a fish spear. The lines were made of whalebone, because slush ice would not freeze on it. Hooks were fashioned from a piece of fossil walrus ivory to resemble a worm, and the leaders were tendons from the legs of large birds. University of Alaska Archives, Van Valin collection.

200. Hooper, *op. cit.*, p. 59.

201. Richard Nelson, *op. cit.*, p. 242.

202. Vilhjalmur Stefansson, *Discovery* (New York: McGraw-Hill, 1964), pp. 173-4.

When the seals began to feel the warmth of the sun, they scratched the snow covering away from their breathing holes and climbed out to bask in the sun.

From here the hunter watches his seal to see what its pattern of alternate sleeping and awakening is. Some seals sleep for only ten or twenty seconds and then raise their heads to look around; others will sleep for up to a minute or more and then glance up briefly before napping again. On warm days they sleep most soundly.²⁰³

Sleeping seals begin to appear in February at Point Hope and around March at Wainwright. By May or June they are common, crawling up on the ice when the sun is highest in the sky. Eskimo hunters might construct a blind or stalk the seal on the ice surface. The effective range of the throwing harpoon used under these circumstances was seldom more than twenty-five feet, so great skill was required in stalking. The hunter might wear light clothing to camouflage himself or might wear dark clothing to draw attention to himself while he imitated the seal's antics, moving closer a little at a time, as the seal napped.

Instead of trying to sneak up to it undetected, he wants the seal to see him. When he gets to within a few hundred yards of the animal, the Eskimo begins to play seal. He imitates the movements of the seal whenever it is awake, and crawls straight toward it while it sleeps. He must always stay in plain sight and never deviate from a particular line of approach, because to do otherwise would frighten the prey.

As soon as the seal begins to watch the hunter, he makes the movements of a seal, flapping his arms like flippers and lifting his head periodically, never crawling forward until it sleeps again. The Alaskan Eskimo also scratches the ice . . . If the hunter does these things each time his prey looks up, the animal will eventually disdain watching the man any longer, and will only look in the other direction, secure in the belief that another seal is near.²⁰⁴



Eskimo with harpoon, dead seal, and kayak, about 1908.
Alaska State Historical Library, Lomen collection.

203. Richard Nelson, *op. cit.*, p. 325.

204. *Ibid.*, p. 328.

They hunt seals on the ice in the spring and fall, and show themselves marvels of patience, lying flat on the ice for hours, waiting for a seal to appear. The seal is very shy . . . The hunter approaches cautiously, by crawling over the ice, his body nearly prostrate, raised slightly on one elbow. He has a piece of bear-skin, about two feet long and a foot wide, which he attaches to his leg on the side upon which he rests; this enables him to slide more easily over the ice. The elbow rests upon a ring of grass.²⁰⁵

Finally, the hunter was near enough to launch a toggle-headed harpoon with a line attached to retrieve his kill. Once the animal had been struck its recovery by the hunter was more or less assured.

... a few drops of fresh water is poured

into the mouth of each seal before it is taken from the ice to the land; they generally go through with the same ceremony with ducks that have been killed at sea, but never with those that have been killed over the land, and the bones of seals are carefully preserved unbroken and returned to the sea, if possible, either by being left in a crack in the ice, far out from the land, or dropped through some open hole in the ice. By so doing they believe that good fortune will follow them in pursuit of seal, which is their main dependence, for from its skin they make their summer boots and soles for their winter boots; its blubber supplies the oil for their lamps during the long night, and with any surplus they may have they purchase deer-skins for clothing from the natives from the interior, and its flesh when cooked is an excellent article of food.²⁰⁶



Seal hunters in kayaks; the hunter in foreground is wearing a sun visor. University of Alaska Archives, Lomen collection.

205. Hooper, *op. cit.*, p. 59.

206. P. H. Ray, *Report of the International Polar Expedition to Point Barrow, Alaska in Response to the Resolution of the House of Representatives of December 11, 1884*: (Washington: Government Printing Office, 1885).



A seal hunter with his catch. Alaska State Historical Library, Lomen collection.

A single bearded seal might weigh 1,000 pounds or more. It would come into a large bay where there were collections of the shellfish which served as its basic diet. The hunters pursued these in umiaks, using a walrus harpoon with a short line and a sealskin float. The skins were especially prized for umiak covers, six of which were required to cover one umiak. The hide was also used for lines and bootsoles.²⁰⁷ The bearded seal was considerably less cautious than the ringed seal, sleeping more soundly and awaking less frequently to change position.

At Tigara (early Point Hope) the large bearded seals were numerous at this time of year and they were the chief object of the hunt, not only because each animal provided several times as much meat as the smaller hair seal, but because bearded sealskins were necessary for boat skins, boot soles, and rawhide lines. In June and July, as larger ponds were opened by the thawing of the

ice, the hunters built walls of ice blocks at the edge of the smaller ponds and waited behind these for seals to approach while swimming on the surface of the pond. When the seal rose or swam close to one of these ice shields the hunter hurled his harpoon, which was a somewhat modified form of that used in stalking seals, retaining a hold on the harpoon line. It usually required two men to hold a bearded seal struck in this manner. Hunters also carried a club with which to brain the seal, when brought to the surface or within reach by being drawn in on the harpoon line.²⁰⁸

Walrus enter the Arctic in the spring as soon as the ice allows and remain until driven away again by the ice, when they move back into the Bering Sea. The importance of the walrus to the economy varied from year to year and from village to village. On St. Lawrence Island it was a staple item, in most other places it was a supplementary source of food.

207. *Ibid.*, p. 97.

208. Larsen and Rainey, *op. cit.*, p. 29.

... most of those killed by the Tikerarmiut (residents of Point Hope) were taken during the summer after the ice had disappeared. At that time huge herds of walrus sometimes hauled up on the beaches to rest. It is said that they were often so oblivious to the Eskimo that the hunters rushed among them with clubs and lances, slaughtering scores of animals as they crawled up out of the water and over the carcasses of the dead.²⁰⁹

A mature male walrus provides an average of about 400 pounds of skin, meat and blubber. The hides were used to cover boats and for making rope. The major season for walrus hunting began in July after the pack ice was somewhat scattered, and landfast ice had started to break up. Usually it was necessary for the hunters to go several miles out to sea, although occasionally walrus could be spotted from the village.

Sometimes umiaks travel far out among the floes in search of seals or walrus, and then an offshore wind arises. This may open a wide stretch of open water between the edge of the ice pack and the land, forcing the boats to weather rough seas in order to reach the coast. The problem is compounded by the fact that they are usually loaded heavily with walrus or seal as well. If it is not too rough, the crew heads for land immediately, possibly after throwing some of their load into the water. But they may be forced to stay within the safety of the ice floe and head toward the places where the pack usually remains closest to the land. From Wainwright this would probably mean traveling north toward Point Belcher and the Seahorse Islands, or perhaps south toward Icy Cape.²¹⁰

The Eskimos are not afraid to travel well offshore in their seaworthy boats as long as they can see the ice from land. The old-time Eskimos... warned that hunters should not try to reach ice that was over the horizon. They said that once a boat traveled over the "hump", it was hard to get back again, "because it was necessary to travel uphill..."

Once the Eskimos have decided to go after a herd, they become very serious and speak in low tones. Walrus hunting, perhaps more than any activity except whaling, is

considered to be a very dangerous business which must not be taken lightly. In this part of the Arctic, walrus are not frightened by man...²¹¹

Hunting was done with umiak, as a group venture, and the walrus was harpooned first and then lanced.

As soon as the walrus is struck the hunter thrusts the harpoon shaft down into the ice, throws a turn of the line round it, and so moors the huge animal. These are dangerous moments, however; for if an arm or leg gets caught in the line the hunter is inevitably pulled into the water and drowned. Every time the walrus comes up to breathe, a lance is swiftly thrust into it until at last it succumbs. In order to secure the monster, which may weigh up to a ton, the Eskimos employ an ingenious tackle: they run a strong seal thong through a pair of holes in the animal's hide and through a similar pair which they chop in the ice.²¹²

Butchering of the walrus, which took several hours, was usually done on the spot.

Fall and Winter

With the beginning of fall the families began to return to their home villages. The late fall was not an actively productive period in terms of economic pursuits. Fish, fowl, and caribou taken during the summer were stored in ice cellars along with whale, seal, and walrus from the previous seasons. Returning whale could provide a secondary source of food supply for the three northernmost towns, for they were often sighted off the coast in the fall and could be pursued in the open sea. But this was an uncertain source of supply. Generally in the fall the population was already supporting itself with the stored food. The winter days were consumed by social, ceremonial, and recreational activity, with the main hunting conducted at breathing holes on the ice. The hunters spread their nets and returned to them daily to collect the catch, spending long hours on the ice.

209. *Ibid.*, p. 29.

210. Richard Nelson, *op. cit.*, p. 341.

211. *Ibid.*, pp. 356-358.

212. Birket-Smith *Eskimos, op. cit.*, p. 77.

The major part of the seal hunting was done during very late fall, winter, and early spring. The more ice on which the hunter might travel, the greater the hunting area. Several methods for hunting seals along the ice were used, ranging from nets through the breathing holes under the ice to harpooning at these holes. The ringed seal remains under the ice throughout the winter, pushing out certain spots along the new, thin ice to be used for breathing holes. They return to the same spots, never allowing them to become solid ice. Winter sealing began late in October or early November, when hunters could travel over heavy ice in search of the breathing holes. Early in the winter, the ice was still particularly hazardous because of its erratic movements.

The daily task of every able-bodied man was to hunt seal, from daylight until dark, during all the winter months from November until April . . . These men lived and hunted under the severest climatic conditions imaginable. ²¹³

At this season . . . many seals are taken with the hand spear, at the "adlu," the breathing-hole of a single seal. It is usually detected by an excessive deposit of hoar-frost on the surface of the snow over the hole; the snow is cleared away down to the solid ice, and in the hole, which is about one inch in diameter at the surface, is placed an ivory needle about one foot long and one-eighth of an inch in diameter; to the upper end a small cross-bar is attached, to prevent it dropping through, and a small feather, and the hunter takes his stand on a three-legged stool, which is always a part of his regular equipment, and patiently awaits the coming of the seal, of which the feathered needle gives warning; after the stroke is delivered, if he succeeds in fastening to the seal, he proceeds to enlarge the hole until it will admit hauling him to the surface; this is usually done with an ivory pick attached to the shaft of his spear; as soon as a seal is taken its mouth is fastened open with a piece of ice, and a slot cut through the lower jaw before it becomes frozen. ²¹⁴

Seal stalking was done by individuals, but breathing hole hunting often involved many hunters at a number of nearby holes thus

ensuring the capture of any seal who was unlucky enough to pop his head up for air. Scratchers were used to attract the curious animals. Often the hunters waited hour after hour without anything happening at the breathing holes in -40° to -50° weather.

. . . the nets are twenty five feet long and fourteen feet deep, with meshes large enough to admit a seal's head, and are rigged with stone sinkers along the bottom, and at the two upper corners are attached two rawhide thongs about forty feet long, one of which has a light weight attached to the end. Holes twelve inches in diameter about thirty five feet apart, are drilled through the ice about sixty feet back from the air-holes; the weighted line is dropped through one hole, and hauled up through the other by a long pole with a hook attached; this pole is made from small pieces of drift-wood carefully spliced together with lashings of whalebone; by this line the net is hauled underneath the ice, hanging down like a curtain between one of the holes and held in its place by the lines being attached to a wooden pin. In this manner the air-hole is surrounded by nets as far as practicable; one man or boy is left to attend to each net, and the strictest silence enjoined; no word is spoken; the watcher, wrapped in his heaviest coat, patiently awaits through the long hours; he occasionally scratches the surface of the ice with the scratcher, which is made of a set of seal claws attached to a piece of wood. The seal, in coming to the hole for air, strikes into the net; the strain loosens the lines from the peg and he entangles himself and soon drowns, when he is hauled out through one of the sealing holes and the net reset. Over one hundred seal are sometimes taken at a single air hole within 24 hours, but they can be taken in this manner only during the dark of the moon - any light will betray the presence of the net. ²¹⁵

Primitive hunting of polar bear was a hazardous occupation. Although they occasionally wandered close to shore, their real home was out on the ice pack far from land. Only when an onshore wind that showed no indications of shifting held the sea ice tightly against the shore did the Eskimos travel far out from the coast. Journeys of twenty or thirty miles out from the land were sometimes necessary.

213. Larsen and Rainey *op. cit.*, p. 27.

214. *Report of the International Polar Expedition to Point Barrow, Alaska, op. cit.*, p. 40.

215. *Ibid.*, p. 40.

When a hunter is going out to a lead or far offshore in pursuit of polar bears, he tests the current if he has any doubt about it. When he finds a crack over several inches wide, a hole, or a lead, he tests the current by dropping some light-colored object that will sink slowly in the water. It will sink straight down until it clears the lower edge of the ice, and it will then be swept along by the current. Looking into the clear water, the Eskimo notes the direction in which it is carried, whether it is onshore, offshore, or parallel to the shore. From this he can judge the ice safety. A piece of white seal thong, chewed first to soak it thoroughly, makes a good current tester. Any piece of string or bright cloth, properly soaked so that it will sink, will do.²¹⁶

Hunters might leave a trail of seal blood or blubber along a lead edge which, when accompanied by an offshore breeze, carried the scent outward over the ice and attracted the bear. Bears were preferably hunted on foot, so that the hunter could quietly stalk the bear, then move ahead and wait for his quarry to arrive. The hunter could travel more rapidly than the bear on flat ice, but more slowly on rough ice. Spears with six-foot spruce shafts to which were attached triangular, tanged flint points were used for killing the bears at close range. Occasionally bear were brought to bay by dogs that were set loose from a team to chase them down.²¹⁷

As soon as the hunters brought the carcass of the bear to the beach, the word was passed along from house to house. All rushed out to get a piece, bringing a knife and a container. The bear was hacked to pieces on the spot and each one took a section. There was considerable play on this occasion, blood being spattered over clothes and on faces. The hunter who had taken the bear held onto the hind leg while the villagers cut up the bear. When the bear had been cut to pieces, the hunter kept his joint and took it home. The bear was not previously skinned.²¹⁸

The meat was particularly favored, although never eaten raw because it contained parasites. The skin was considered most valuable in late autumn and early winter.



Fishing through the ice. Alaska State Historical Library, Reed collection.

216. Richard Nelson, *op. cit.*, pp. 39-40.

217. E.W. Nelson, *op. cit.*, p. 121.

218. Spencer, *op. cit.*, p. 273.

In the vicinity of Point Barrow, fish were not plentiful in either fresh or salt waters. At tidal cracks in coastal ice tomcod and sculpins were taken in the fall. The tackle consisted of a barbed lure-hook of ivory, a baleen line, and a wooden rod, which served also as a reel for the line when not in use. In the late winter, holes were chopped in the shore ice with an ivory pointed ice pick, and they were kept open by removing any newly forming ice with a scoop made with an antler frame, baleen mesh, and a wooden handle. A cluster of barbless hooks around a single shank was lowered, jigged to attract tomcod, and then raised to the surface abruptly in order to impale any fish that were near a hook. Gill nets made of baleen or sinew strips were set beneath river ice for whitefish or along open lagoons for salmon. Rawhide nets were set beneath the sea ice in the winter and along the seashore in the summer to capture small hair seals. The final fishing implement of note was the leister, which had a central barbless point and two lateral prongs.²¹⁹

The chief tomcod schools arrived between

January and March, and women and children could be seen even in the severest weather jigging for them on the ice. The daily take in the Bering Sea ranged up to 200 pounds; even a child could catch quantities in a day.²²⁰ Out of the water, the fish froze at once and were stored and eaten in a frozen state. At Wainwright the same nonhunting segment of the community fished for smelt between January and March in a manner similar to that used for tomcod. In February and March the old people and children, especially those at Point Hope, fished for crabs through holes in the ice.²²¹

A net baited with a seal's nose was fastened across a hoop-shaped piece of baleen. The trap was lowered horizontally into the water and allowed to rest near the bottom for about a quarter of an hour. When it was raised slowly to the surface, small crabs would be clustered around the bait.²²²

Small shrimp, "whale food," was taken for human consumption when available in great abundance.

219. Oswalt, *op. cit.*, p. 161.

220. E.W. Nelson *op. cit.*, pp. 175-6.

221. Spencer, *op. cit.*, p. 143.

222. Oswalt, *op. cit.*, p. 124.

The crab fisher. Alaska State Historical Library, Reed collection.



Arctic Hunters and Fishermen

Immediately south and east of the arctic region lived the arctic hunters and fishermen, who exploited a diversified subsistence pattern based on sea mammal and caribou hunting and fishing. Some sea coast dwellers hunted caribou intensively during some seasons, and inland Eskimos engaged in sealing at different points along the coast. The seal was most likely to occupy a dominant role in the livelihood of these Eskimos.

The earliest Alaskan mainland culture of sea mammal hunters is the Old Whaling Culture dating around 1800 B.C. at Cape Krusenstern. In addition to the great whales these ancient residents hunted small seals, but seldom caribou.²²³ Giddings surmises that large, uncovered skin boats were used in the pursuit of the whale in the open sea.²²⁴ Whalebones were used in house construction. Seals were harpooned with the thin, toggle harpoon heads and hunted from kayaks that had inflated seal bladders attached as floats.

If the Old Whalers did exploit the forest edge, they seem not to have ventured far up the Noatak River or into the hills, for besides fish bones, which occurred frequently in hearths, the only bones of food animals were those of seals . . . Whether by preference or from fear of alien dwellers farther away, the Old Whalers did not even procure antlers for making tools and weapons.²²⁵

They occupied the coast both in summer and winter, banding together for security and for the communal effort of the whale hunt. The dependence upon the resources of the sea was complete, and the living made off these resources was a good one.

Whaling in the Aleutian Islands and other North Pacific localities had been of a different sort, so far as is known from written records and archeological evidence. There, in recent centuries, hunters went out in two-man kayaks (bidarkas), the forward man throwing a slate-tipped spear at the middle of a whale's back. The poison of a plant, aconite, smeared on the detachable tip of slate caused the animal to sicken and, later, to die. The hunters then merely waited at home in hope that their whale - or one poisoned by other hunters - would wash up on their beach.

Sharply in contrast was the aforementioned Arctic pattern of planned interception of a whale between ice floes, its capture by direct and dangerous contact, and its subsequent towing to shore. Whatever the origin of this type of whaling, we saw that it had persisted for nearly four thousand years, starting in Old Whaling Days about 1800 B.C.²²⁶

In earlier periods whales must have cruised close to shore. But in more recent historical times they did not, and no whaling was done at Cape

223. *Ibid.*, p. 43.

224. Giddings, *Ancient Men of the Arctic*, *op. cit.*, p. 98.

225. *Ibid.*, p. 239.

226. *Ibid.*, pp. 242-243.

Krusenstern. Increasingly, a generalized approach to the solution of subsistence problems characterized the area. For the last 350 years Kotzebue has been the wintering place for people who hunted, and traded with those who hunted, in the forests and mountains of the interior. In the spring and fall, when Kotzebue sound was open, they harpooned seal and beluga. Salmon were netted along Hotham Inlet during the summer run.

Sealing was generally restricted to seasonal hunting when seal were plentiful in the open water. It did not involve the tedious stalking and breathing hole hunting of the far north. Beluga hunting was a communal effort, involving the herding and slaughter of enough quantity to provide winter food for men and dogs and various other necessary materials. Central and lower Noatak River Eskimos moved to the coast

to hunt bearded seals and beluga in the spring and to fish for salmon and whitefish during the summer. The inhabitants of the middle and lower Kobuk River stressed seining or gill-netting salmon during the summer.

Kobuk people in historic times have seined for salmon and shee . . . in late summer, and have set nets at stream mouths and eddies for whitefish and pickerel at other seasons; they have built fish fences converging on basket traps or net frames under ice in the fall . . . and they have used leister spears, three-pronged fish spear, fish arrows, and fish hooks and lures at various seasons.²²⁷

These river people were more basically coastal people than were those inhabiting the Kuskokwim and Nushagak river region.²²⁸

227. Giddings, *The Arctic Woodland Culture of the Kobuk River* (Philadelphia: University of Pennsylvania Museum Press, 1952), p. 34.

228. James W. Van Stone, *Akulivikchuk: a 19th century Eskimo village on Nushagak River, Alaska* (Chicago: Field Museum of Natural History, 1970).

St. Lawrence Island, Sledge and King Islands and Cape Prince of Wales

The residents of St. Lawrence Island were dependent upon the sea mammals, fish, and birds immediately available to them in a way the mainland Eskimos weren't required to be. They utilized one general pattern of sea mammal hunting through a long period of time. During eight months of the year, ice hunting conditions at St. Lawrence are the same as those in the Arctic. Available were beluga, bowhead and finback whales, five species of seal--bearded, harbor, leopard, ribbon and fur--the sea lion and, perhaps most important of all, the walrus. It is possible that in former years an occasional sea otter strayed this far north.²²⁹ And it is possible that animals which did not normally inhabit the region were washed there, either dead or alive, by strong ocean currents. These are some of the best walrus hunting grounds in the Bering Sea.

Occasionally, huge walrus herds "haul up" on the north shore of the largest island in such numbers that many are crushed by the sheer weight of others crowding over them in their progress from sea to shore.

Great deposits of walrus ivory, not all found in midden refuse, indicate that this condition has continued for centuries and explain the presence of large prehistoric native settlements on these minute and barren islands.²³⁰

Walrus was used for food and their hides for boat covers. The walrus oil provided heat and illumination. Ivory was used on St. Lawrence,

whereas bone was used elsewhere for the same object.²³¹ Seal and walrus were both captured with the familiar toggle-headed harpoon with a detachable foreshaft, and the sealskin float was used. In winter seal and walrus were hunted on the ice and in summer from the kayak in open water. Whale were presumably taken from an umiak.²³² Both whale and walrus bones were used in house construction.

Heavy sledge runners of whole walrus tusks and others of whale ribs, together with baleen toboggans, show that these people ranged widely on the ice, hauling their boats to the open leads and pulling home loads of meat as did their descendants of Penuk and those of the present day. Recently found Old Bering Sea whaling harpoon heads show that these people procured their whale by a method similar to that of modern Eskimos . . .²³³

Meat was eaten boiled, sour, dried, or raw. Hunters, confident of their ability to secure game, seldom carried meat with them. The stomach of a freshly killed walrus could always provide "natural clam chowder." Virtually the entire animal was considered edible.

Migratory birds including ducks, auklets, murre, puffins, and cormorants and their eggs were a primary food source in the summer. They were very numerous at this season.

The rocky coast of St. Lawrence Island provides many rookeries of which the principal ones are at Cape Bunnell, the cliff at Cape Chibukak, the cliffs east of west of

229. Otto William Geist and Froelich Rainey, *Archaeological Excavations at Kukulik St. Lawrence Island, Alaska* (Washington: Government Printing Office, 1936), p. 8.

230. Froelich G. Rainey, *Eskimo Prehistory: The Okvik Site on the Penuk Islands*, (New York: American Museum of Natural History, 1941). p. 463.

231. H. B. Collins *Archeology of St. Lawrence Island* (Washington, D.C.: Smithsonian Institution, 1937), p. 253.

232. Rainey, *op. cit.*, p. 544.

233. Giddings, *Ancient Men of the Arctic*, *op. cit.*, p. 159.



Walrus hunters on the ice pack. University of Alaska Archives, Lomen collection.

Savoonga, and the cliffs and rocks on two of the three Penuk islands.²³⁴

The birds were taken in nets and snares and with bird darts and blunt bird arrowheads.

Tomcod, black cod, and sculpin were caught both in summer and winter, but during no season did they form an important part of the diet. These were predominantly meat-eating people. Occasionally humpback salmon and salmon trout were secured from inland rivers.

Only forty miles separated St. Lawrence Island from the Siberian coast. Rainey estimated the distance from the Penuk Islands to the Siberian coast could be covered in a sailing umiak with a fair wind in about forty hours.

Travel is mostly for hunting purposes. Since the St. Lawrence Island Eskimo are not a sea-going people, most of the water travel is near shore. Sometimes, however, hunting trips in the spring extend well over the International Date Line. At this distance the Island can be identified, if the weather is clear, only by the highest points of Cape Chibukak and West Cape. It is then that the Siberian headland is more distinct and everyone is anxious for a chance meeting with Siberian Eskimo hunters from Indian Point, Plover Bay, Little Max Bay, and other Siberian villages. Such meetings frequently

take place and, since the people from both sides are always well acquainted, if not related, these encounters provide a pleasant break in the general monotony of existence, especially at the end of a long eight-month winter during which they have been hemmed in by the pack ice.²³⁵

The St. Lawrence Islanders brought walrus ivory and whalebone to trade for Siberian reindeer skins and horns.

Fifteen hundred people were living on St. Lawrence Island in 1878 when traders arrived with a large supply of whiskey. The islanders substituted drinking for hunting into the fall, by-passing the season when walrus were most abundant. Famine accompanied by epidemic disease set in shortly thereafter. By spring, two-thirds of the islanders were dead. In seven of the villages no one survived. The population of Gambell was reduced from 600 to 200 in that year.²³⁶

At Cape Siepermo . . . we found the village deserted, not a sign of life remaining. I counted 54 dead bodies; and, as these were nearly all full-grown males, there can be no doubt that many more died. The women and children doubtless died first, and were buried. Most of those seen were just outside the village, with their sleds beside them,

234. Geist and Rainey, *op. cit.*, p. 8.

235. *Ibid.*, p. 17.

236. Giddings, *Ancient Men of the Arctic*, *op. cit.*, p. 161.



Men with cod, St. Lawrence Island, August 1897. Alaska State Historical Library.

evidently having been dragged out by the survivors, as they died, until they, becoming too weak for further exertion, went into their houses, and, covering themselves with skins, laid down and died. In many of the houses we saw from one to four dead bodies. One woman was found face down, just outside the door of a house; probably one of the last survivors, she had gone out to find relief from her terrible sufferings, and, overcome by weakness, had fallen and found that relief in death... At a large settlement on the northwest end of the island... which we next visited, we found about three hundred alive. They confirm the report of wholesale starvation, and say that the inhabitants of the villages visited by us on the north side of the island are all dead, not one escaping. At this settlement two hundred had died, and the entire number had barely escaped starvation by eating their dogs and the walrus-hides covering their boats and houses.²³⁷

After the famine the main island was repopulated by Siberian Eskimos.

The Arctic emphasis on whaling was shared by the people on Diomedé, King, and possibly

Sledge islands, who hunted walrus and seals, in addition to whales, and traveled long distances during the summer to fish or trade. Wales was a trading center, so more residents remained there throughout the year, although their pattern of life was similar to the Bering Strait islands. Skins of the walrus and seal were manufactured into roofs of houses and coverings for boats.²³⁸ The advantages of occupying some of the island locations had to be enormous to outweigh the disadvantages.

Concerning King Island:

The native village of small huts was built on poles hung precariously on the slopes of the cliffs, and the homes being held in place by wires, ropes and walrus hide lines running from the dwelling places to anchoring rocks. The ground was so broken that no level places of sufficient size for a house could be found.

The island is ice-bound for a great part of the year, and only a hardy people could exist in such surroundings. It is in the path of migrating sea mammals - walrus, seals and whales - and is ideal for capable hunters who have the ability to compete with the

237. Hooper, *op. cit.*, pp. 10-11.

238. Petroff, *op. cit.*, p. 10.

elements and secure their food from the stormy waters.²³⁹

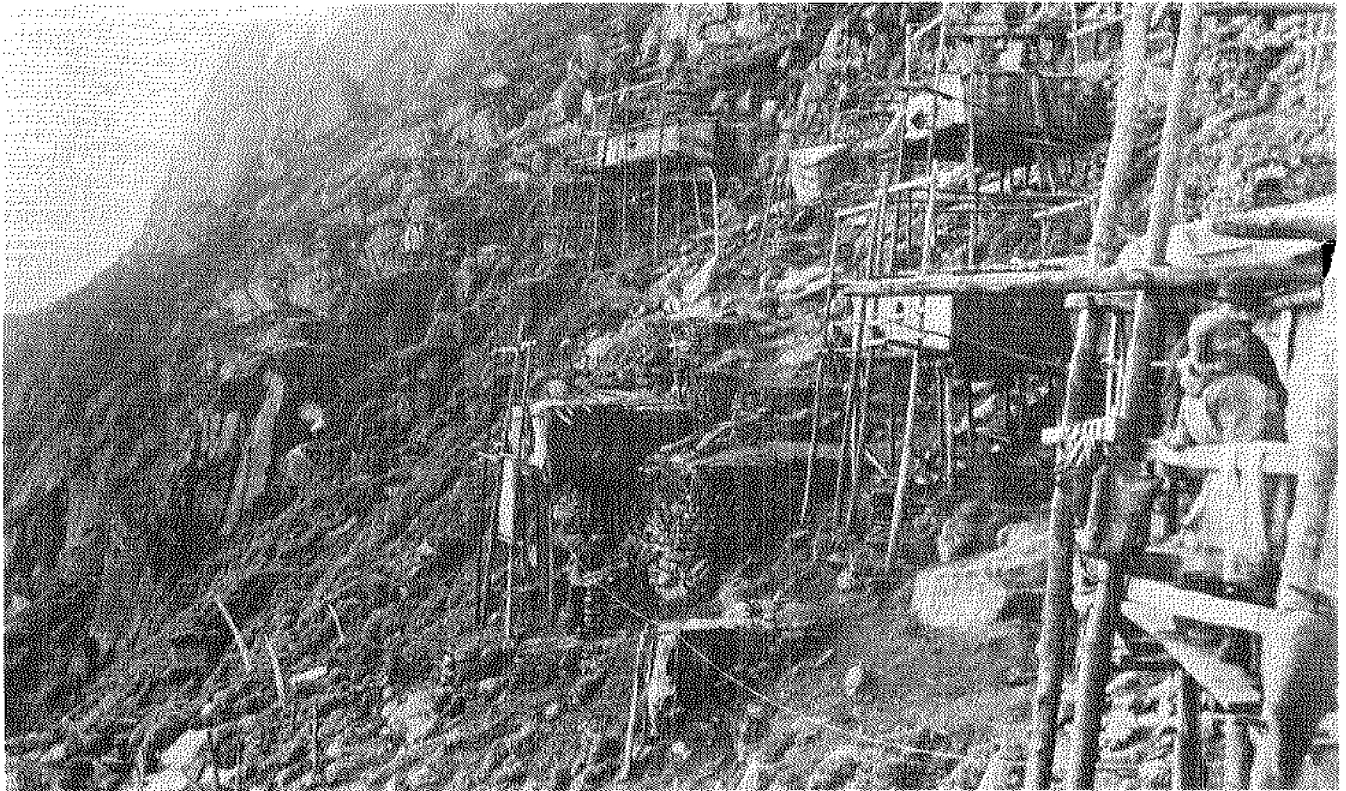
The practice of entering the boat ashore and throwing man and kayak into the water existed on King Island and Sledge Island.²⁴⁰

The natives of this Arctic Gibraltar are very expert with the "kyack." It is said that when the surf is breaking against the perpendicular sides of the island, should it be necessary to launch a canoe for any purpose, the native who is to embark takes his seat in his "kyack" as near the surf as he can approach with safety, secures his water-proof shirt, made of the intestines of the walrus, to the rim of the hatch, grasps his paddle, and, watching a favorable opportunity, gives a signal to two men who stand in readiness, and is thrown entirely clear of the surf. These "kyacks" are probably the finest in the world, but, owing to the rough service they have to perform, are made somewhat heavier than those in use

in Kotzebue sound, and are covered with walrus-hide.²⁴¹

They were said to resemble the kayaks made on Nunivak Island.

Here (Sledge Island) they saw the InnuIt tying several men securely into their kyaks, on the top of the rock, some fifteen or twenty feet above the water. When all was done each man grasped his double-ended paddle, and two others took the kyak by bow and stern and tossed it, with its occupant, into the water. For a moment they disappeared under the waves, but instantly rose and righted themselves . . . This is an excellent illustration of the wonderful skill with which they learn to manage these little canoes. In his kyak the InnuIt does not hesitate to attack the seal, walrus, or whale. Those of the Norton Sound have only the seal and beluga, but those of Bering Strait have abundant opportunities for hunting the bowhead and walrus.²⁴²



King Island village. Alaska State Historical Library, Shattuck collection.

239. Alfred M. Bailey, *Birds of Arctic Alaska*, (Denver: The Colorado Museum of Natural History, 1948), pp. 45-46.

240. Adney and Chapelle, *op. cit.*, p. 194.

241. Hooper, *op. cit.*, p. 15.

242. Dall, *op. cit.*, p. 138.

Bering Sea Hunters and Fishermen

The Bering Sea coast in the Norton Sound area is the oldest continuously occupied region of Alaska. The Denbigh Flint Complex from that area has been given a radiocarbon date between 2500 and 3000 B.C.²⁴³

The winter culture of the Denbigh people was adapted to the rivers and mountains of the interior. In the spring and summer they occupied a large area along the ocean edge, pursuing seals and walruses with harpoons and boats which were essentially like those used by modern Eskimos.²⁴⁴ Breathing-hole hunting was impractical because of the broken nature of the ice around Cape Denbigh, and whales were of little importance because this part of Norton Sound is not in the mainstream of migration of those mammals. Gradually these people became increasingly dependent on the sea for their livelihood, extending their technology to suit their needs.

Formerly, perhaps even in Denbigh times (approximately 4500 to 5000 years ago) there would have been groups of paddlers in skin boats or bark canoes visiting back and forth, exploring unoccupied stretches of the shoreline, or perhaps planning a communal attack on an unfriendly tribe. In either wind or rain, summer life on these beaches is nearly mosquito free, and the shoreline is a great open highway of never-ending interest to those who read its signs.²⁴⁵

In more recent historic times the Bering Sea

hunters and fishermen, living in the region extending from Teller southward to the Alaska Peninsula, have been oriented toward a maritime economy in which the seal was the most important animal killed. Salmon fishing was a significant activity at the mouths of rivers and in certain bays, and caribou hunting was available on the adjacent tundra.

The significant thing about these...people... is that they possessed a material culture that was not only well adapted to sea mammal hunting and trapping on land, but also to the taking of fish. They were thus able to adjust economically to any environmental situation that was compatible with their varied technology. So when these people entered the Kuskokwim and Nushagak river systems, fishing and land hunting methods were emphasized while the sea mammal hunting technology withered away and was forgotten.²⁴⁶

During the spring and fall seals were caught in nets when they came close to the shore in pursuit of herring or haddock.²⁴⁷ When leads developed in the ice in late winter, seals were taken in the open water with harpoon darts and throwing boards which were preferred in this region over the hand-thrown, toggle-headed harpoon. Kayaks were used to move from one large ice floe to another and to patrol the open waters. In the spring seals were taken as they slept on the ice.²⁴⁸

243. J.L. Giddings *The Archeology of Cape Denbigh* (Providence, Rhode Island: Brown University Press, 1964), p. 250.

244. *Ibid.*, p. 84.

245. Giddings, *Ancient Men of the Arctic*, *op. cit.*, p. 279.

246. James Van Stone *Eskimos of the Nushagak River* (Seattle and London: University of Washington Press, 1967), p. xxiii.

247. Lieutenant Zagoskin, *Lieutenant Zagoskin's Travels in Russian America 1842-44*, ed. Henry N. Michael (Toronto: U. of Toronto Press, 1967), p. 113.

248. Oswald, *op. cit.*, p. 127.

About the end of February the Eskimo from Bering Strait southward begin to hunt seals at the outer edge of the shore ice, where the leads are open at that season. On the 28th of February, 1880, I met a party of people on their way from the head of Norton Bay to Cape Darby, where they were going to hunt seals on the ice until spring opened. . . . At this season, also, the people about St. Michael begin their usual spring hunting upon the ice. They leave their village, hauling their kaiaks, spears, guns and other implements on small, light sledges made specially for the purpose. Whenever open water is to be crossed the kaiak is launched, the sled placed upon it, and the hunter paddles to the opposite side, where he resumes his journey upon the ice. ²⁴⁹

Generally, beluga hunting methods resemble those for hunting seals, for few specific methods are used exclusively in the pursuit of these small, white whales. They were taken either in nets or by the same harpooning devices used to take seals.

The most important beluga-hunting, however, takes place with the big drives at Pashtol Bay, where all the coastal people of the south shore of Norton Sound congregate about the middle of July. They choose a quiet day, and when the tide is full, they sail out in 100 or more kayaks to the edge of the deep water. From July on, the beluga appear in great numbers with their young as they follow the fish outside the mouths of the Yukon. As they move forward in pursuit, the natives keep absolute silence, but when they have gone out to a certain distance, at a signal from one of the old men who has been chosen, they start to make the greatest possible noise: they beat drums, strike their paddles on the kayaks, they do not shout, but bellow, and slowly, carefully, they move in toward the shore as the tide starts to go out. The school of belugas, which had been left in peace while it was

moving around at sea, hurries toward the shore as though trapped by the noise, to where the beach shelves off gradually. The tide ebbs, first the animals stop diving, then their spines start to show above the water, after that they lose their power of motion, and finally they are left high and dry. In a good year the hunters may round up as many as a hundred head in one drive. . . . If someone succeeds in harpooning a beluga at a time when the slaughter is not going on, and this should happen within sight of the village, then all the villagers are obliged to help him. ²⁵⁰

During the latter part of August and early part of September nets are set near rocky islets or reefs to catch white whales. . . . Whales enter them and are entangled exactly as fish are caught in gill nets, and, being held under water by the weight of heavy anchor stones, are drowned and remain until the hunter makes his visit to the net. As these nets are set so far from shore that it is impossible to observe them from the land a daily visit is made in a kaiak to inspect them. ²⁵¹

A very limited number of walrus still occur about some of the small islands in Togiak Bay west of Nushagak, and on the north coast of the Alaska Peninsula in the vicinity of the native village of Unangashik. Large quantities of walrus bones, witnesses of bygone slaughters, are to be found at various points along the peninsula. One such place was reported by the fishermen of Igigik, who had recently found it while on a hunting trip near there. From their accounts, the remains must be in great quantities! ²⁵²

Great numbers of walrus are known to have been killed at Port Moller.

The general subsistence pattern resembled that of the Arctic hunters and fishermen, except for a greater reliance on fishing, particularly salmon fishing. In ancient times netting was the

249. E. W. Nelson, *op. cit.*, p. 128.

250. Zagoskin *op. cit.*, p. 113.

251. E. W. Nelson, *op. cit.*, p. 131.

252. Osgood as quoted by Olaus J. Murie, *Fauna of the Aleutian Islands and Alaska Peninsula* (Washington: Government Printing Office, 1959), p. 312.



Tomcod fisher. Alaska State Historical Library, Reed collection.

most significant fishing method in terms of quantity of food.²⁵³ But this was a technique usually practiced during large runs of fish, such as herring and salmon. Fish were speared and hooked throughout the year. Salmon were available in sufficient quantities to meet primary subsistence needs as far north as the Seward Peninsula, but from that point north they dwindled rapidly in numbers and importance in the economy.

The diversity of equipment connected with fishing clearly reflects the importance of fish in the Unaligmiut economy. Tomcod were caught by jigging beneath the shore ice in the spring and late fall. A hole was chipped with an ice pick, and the newly forming ice was removed repeatedly with a wooden-handled scoop which had an antler rim and rawhide netting across the inner section of the rim. Two poles were used, with a reel on one for winding the hooked line. The other short pole had a spilt antler eye at the end for inserting the line of rawhide, sinew, or bird quills which had been split, made flexible, and knotted together. Near the lower end of the line were a sinker and a hook shank with multiple barbless hooks attached. For grayling, loach, blackfish, pike, and whitefish, barbless hooks were attached to lines. Seines were employed for herring, but gill nets were set for whitefish and salmon. The netting material was rawhide or sinew, and mesh sizes were measured with gauges. Net floats were wooden and sinkers were stone or antler. Nets of heavy rawhide line weighted with heavy stones were set for white whales and seals. In small streams funnel-shaped traps were set in association with weirs to catch whitefish and blackfish in the spring, whereas in the fall whitefish and pike were speared through holes in the ice with leisters. Salmon or whitefish might also be speared with a barbed harpoon dart head fitted into a wooden shaft. Through a hole in the dart head was a rawhide line which was held coiled by the fisherman and fed from his hand after he threw the spear. By means of this line the harpooned fish was played and then landed.²⁵⁴

253. Giddings, *The Archeology of Cape Denbigh*, *op. cit.*, p. 53.

254. Oswald *op. cit.*, p. 168.

Families might move into tents and live at summer fishing camps, but generally did not travel through a wide area.²⁵⁶ Large summer trading fairs did not exist in their area.

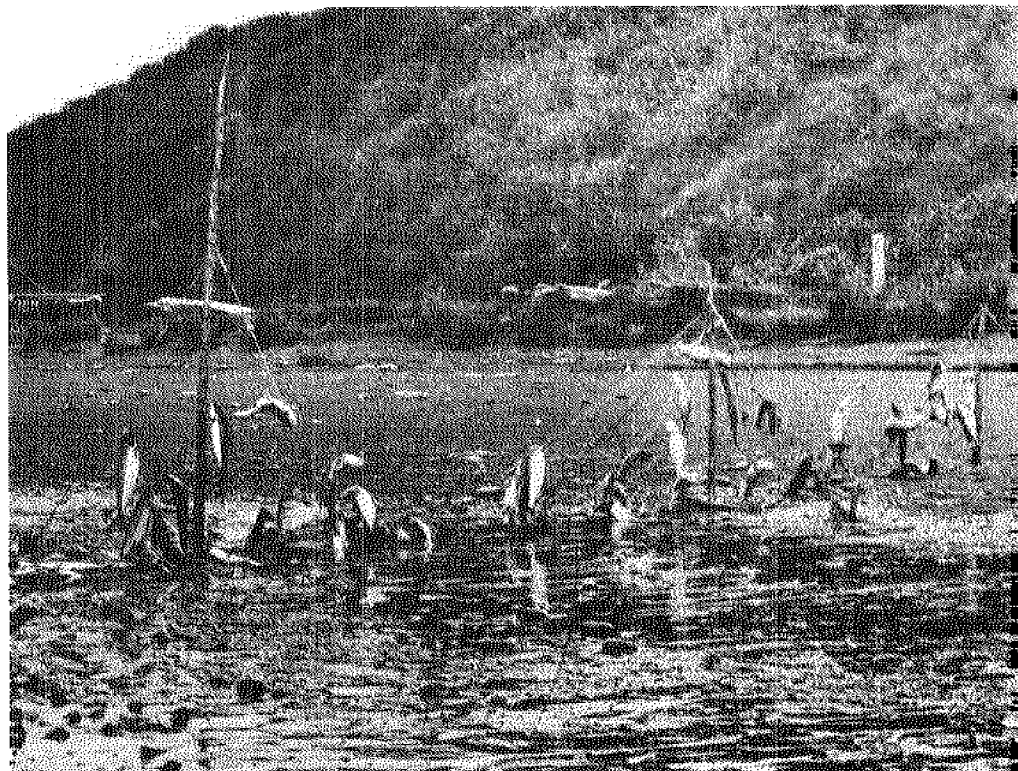
As in so many other areas of the state, birds were an important secondary food source.

Of the migratory birds, swans, geese, and cranes pass over the fort in countless files from the 20th of April until the end of May on their way to shores of the Arctic ocean. Many of the flocks stay to molt on the spacious flats at the mouth of the Yukon. In August the birds settle on the ponds of St. Michael Island; at either time a skilled marksman can kill some 50 in a day, either on the ground or in the air. Ducks can be taken in small numbers all summer.²⁵⁶

At certain points of land along the coast, such as at Hooper Bay Village, the people

appear to have concentrated on seal and caribou hunting, but they did not ignore migratory birds and fish... Because this region was the most important Alaskan nesting ground for ducks, geese, and swans, the summer hunting of these birds provided meat as well as skins.²⁵⁷

The shallow waters along the coast of Nunivak Island prevented visits by the great whales and early traders alike. Bearded seal, walrus and beluga were hunted in spring and smaller seals throughout the summer. Seals were not hunted while resting on the ice, nor were they taken at breathing holes, but instead they were harpooned from kayaks.²⁵⁸ Herring, tomcod, flounder, and halibut were available in this region. Dried herring were relied upon for winter food, as were the tomcod caught during winter months.



Native gill nets on beach near Pacific Steam Whaling Company's cannery, Nushagak Bay, 1900-1901. Alaska State Historical Library, Moser collection.

255. *Ibid.*, pp. 104-5.

256. Zagoskin, *op. cit.*, p. 99.

257. Oswalt, *op. cit.*, pp. 127-8.

258. *Ibid.*, p. 128.

Salmon Fishermen

Along the Yukon, Kuskokwim, Togiak, Nushagak and Naknek rivers, the Eskimos would have been in a "sorry plight indeed were it not for the abundant supply of salmon during the summer."²⁵⁹ Many fishermen earned 90 percent of their yearly earnings during a period of a couple of weeks. Petroff estimated that for each individual resident of the Kuskokwim district and his proportionate share of family dogs, 6,000 pounds of fresh fish were consumed annually. His estimate for the 4,000 people of Bristol Bay was 2,000,000 pounds of fresh salmon caught annually for subsistence.²⁶⁰

And yet there was flexibility in this economy, for the Eskimos could turn for food to the sea, the rivers, or inland as conditions indicated. Historic sites contain evidence of land hunting and shellfish, in addition to sea mammal hunting.²⁶¹

Few salmon were caught until the big runs commenced in July, when they were taken in dip and gill nets and in traps which were set in association with weirs or individually with barbed harpoon dart heads.²⁶² The fish heads might be buried in the ground and allowed to rot slightly before being eaten, and fish eggs were put in seal oil, but generally the fish were dried on racks.

Migrating ducks and geese were taken in quantity at molting sites or individually snared or shot with arrows. Their eggs were preserved in seal oil.

The inhabitants of these settlements (between Togiak and Nushegak) derive their sustenance from both sea and land, making long journeys in their kaiaks to islands and banks on the sea, the resort of the seal and walrus . . .²⁶³

Walrus hunting was an important activity in Nushagak Bay and surrounding area during the Russian period. Between 1827 and 1830, 452 puds of walrus tusks were shipped from Alexandrovski Redoubt and in 1838 alone nearly 200 puds. (One pud equals approximately thirty-six pounds). By 1890, however, most of the animals had disappeared.²⁶⁴

Beluga were hunted along the shores of many of the bays, including Good News and Nvshagak bays, throughout the summer months.

Dolly Varden, lake and rainbow trout from inland lakes, together with whitefish, provided important additional food sources for the Eskimo.

The seasonal cycle . . . is roughly the same for both the river Eskimos and those living on the shores of Nushagak Bay. Only in the spring did any major difference occur, when the coastal people did most of their sea mammal hunting. The distinction between the coastal and interior way of life was very likely greater in the aboriginal period before both groups of people were drawn into the fur trade. Nevertheless, the Aglemiut were

259. Petroff, *op. cit.*, p. 13.

260. *Ibid.*, pp. 72-3.

261. Oswalt, *op. cit.*, p. 49.

262. *Ibid.*, p. 128.

263. Petroff, *op. cit.*, p. 15.

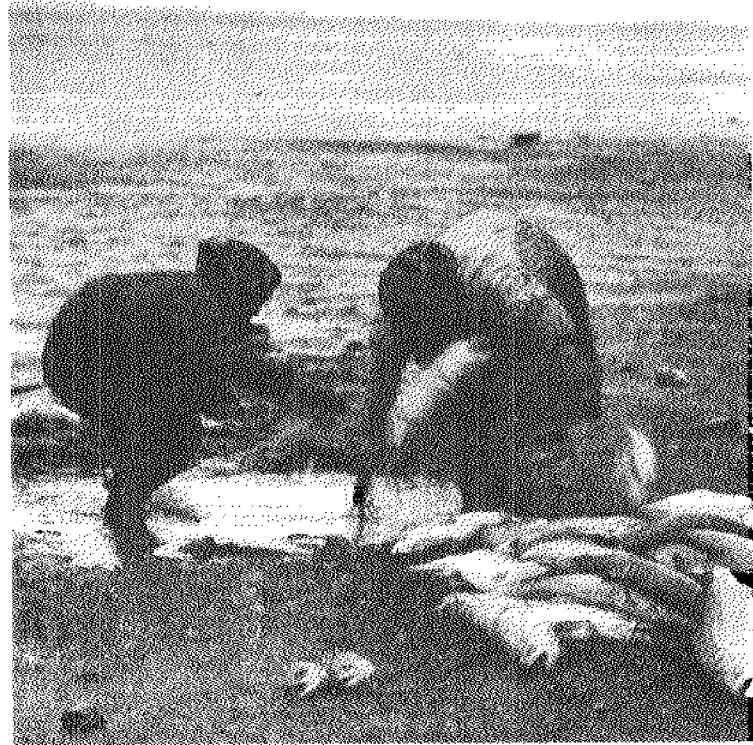
264. Van Stone, *Eskimos of the Nushagak River, op. cit.*, pp.128-9.

never primarily sea mammal hunters but emphasized fishing and were always more inland-oriented than many coastal Eskimos to the north. 265

River Eskimos might come down to the coast in the late spring to hunt seals and trade and stay on to fish, a pattern which expanded after commercial fishing was introduced.

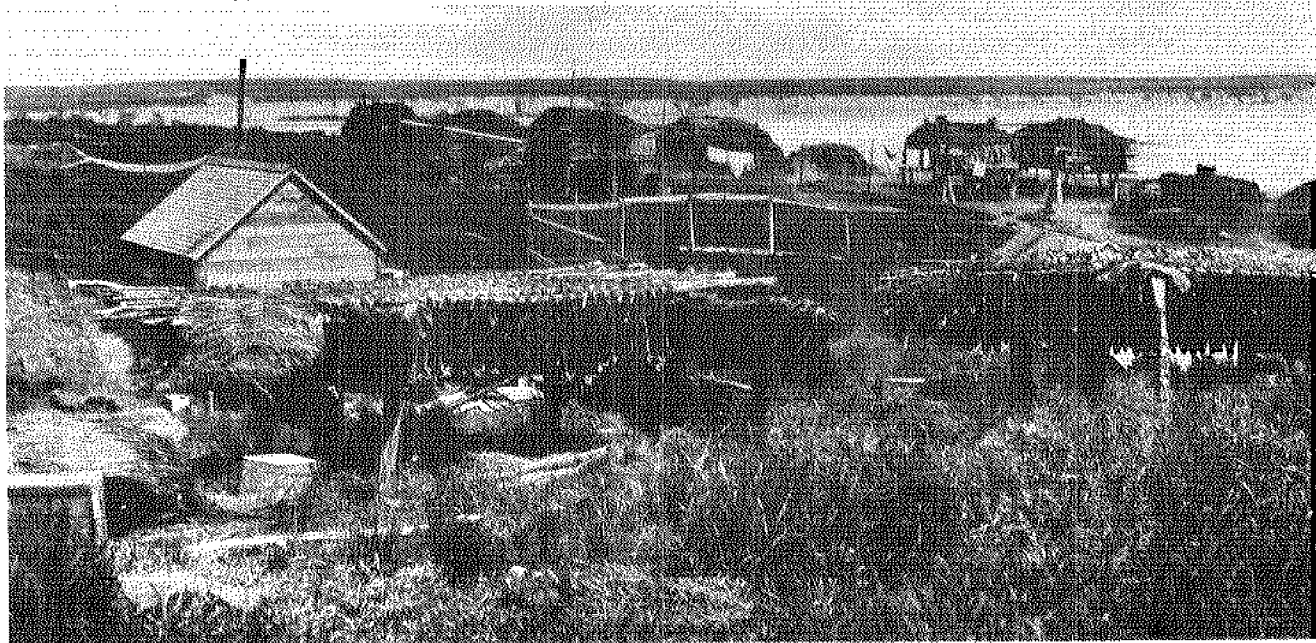
... inhabitants of the Nushagak River region and, to a lesser extent perhaps, the Kuskokwim, were more truly an inland people than those of the Kobuk and Noatak drainages. 266

By the last week in July the great runs of salmon had passed and fishing near the coast ended. Caribou hunts, chiefly for skins for clothing, were in the late fall. Lingcod and blackfish were caught through the shore ice at that time. By early December the subsistence activities had ceased, and men returned to their permanent villages. The people of the bay and lower river used the skin kayak, while those living up river relied on birchbark canoes. 267 Festivals were held here, as in the northern areas, to promote friendly relations between neighboring villages during the winter.



Eskimo women cleaning salmon, 1900-1901. Alaska State Historical Library, Moser collection.

Native village with racks of drying salmon on a bluff of the Naknek River, 1900-1901. Alaska State Historical Library, Moser collection.



265. *Ibid.*, pp. 129-30.

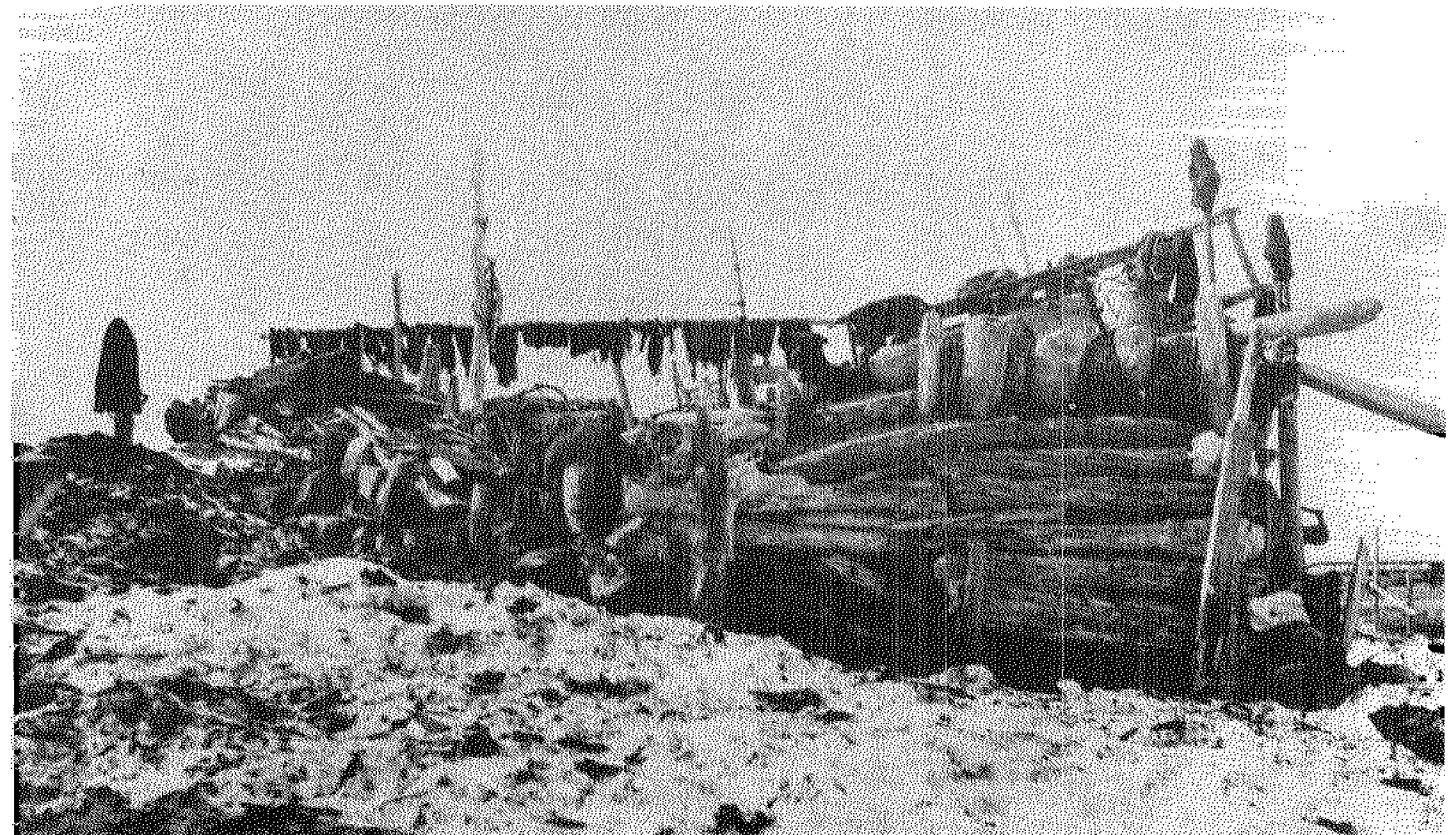
266. Van Stone, *Akulivikchuk*, *op. cit.*, p. 109.

267. Van Stone, *Eskimos of the Nushagak River*, *op. cit.*, p. 122.

Subsistence Uses of Bering Sea Products

It is the sea rather than the land that on the whole conditions the life of the Eskimos... The large aquatic mammals - seal, walrus, and whale - provide them with their most important food, blubber for lamps, skins for clothing, boat coverings, harpoon floats and thongs, ivory for implements. Most of them also get their wood either entirely, or to a great extent, from the sea... 268

Eskimos have done considerably more than survive in their harsh, inhospitable environment. Their retention of generally the same kinds of harpoons, kayaks, clothes, etc., throughout a large area and over a long period of time reflect the versatility of Eskimo technology.



Eskimo house of driftwood. University of Alaska Archives, Bunnell collection.

268, Birket-Smith, *Eskimos*, *op. cit.*, p. 70.

Village Sites

The major factor which determined the selection of a summer or winter settlement was the abundance of game and fish in the area. Ideally, sites were located by a good landing beach, close to a supply of fresh water and wood, and on high ground to provide residents with a view of approaching game or enemies and to make flooding less likely. The most common settlement pattern was for tribal segments to live in winter villages, range from these during the summer months, and return to their home villages at the beginning of winter. Populations were constantly expanding and contracting with fluctuations in food supplies. Many ancient Eskimos did not abandon their coastal homes, even in the heart of the cold season.

The only source of wood was that which drifted onto the beaches. Even inland Eskimos came to depend on driftwood, obtaining logs and planks by trade from the coast. Alternative materials served most purposes but "wood was essential for weapon shafts, bows, and arrows since there were no recognized substitutes, and every tribe was able to meet these needs."²⁶⁹ Substituting for wood posts, beams, and laths in early times were the ribs of large whales.

Whales' jawbones, skulls, and vertebrae are plenty - scattered along the shore and in the villages, where jawbones and ribs are used for staging timbers, and they are also sometimes found buried in the turf, indicating considerable age. There is also much decaying whalebone in the ruined iglus which have been laid open by the sea at Cape Smythe, pointing to the time when whalebone had no commercial value, and more was obtained than could be used for ordinary purposes in the village.²⁷⁰

Food

Each Eskimo group came to stress the importance of the game most readily available. Game was captured to meet immediate family needs, and supplies of it were prepared and stored for winter months. However, hunters continued to harvest game whenever possible, simply because possession of surplus food and goods counted as wealth. The seal was the most completely utilized of all the marine mammals. It formed a significant part of the diet throughout the area; its heart, liver and shortribs were the choice portions. The spleen and lungs were used for dog food, but little else was discarded in this manner. The brain and eyes were eaten, as were seal stomachs, which could also be dried and used to store oil. Everything eaten was seasoned with seal oil, which was also used for fuel and as an important item of trade.

Whale--where and when available--was a highly preferred food. The whale skin and outer blubber, which was eaten raw or boiled, was a prime delicacy. Butchering involved cutting blocks of meat which weighed from 200 to 300 pounds. The tongue, heart, and kidneys of the animal were especially favored, and were given to the crew credited with taking the whale.

Use was made of virtually every part of the whale carcass . . . the baleen, the long-fringed strainers in the mouth of the plankton-eating whales, was . . . used for many purposes, including the making of ornaments and amulets, of sledges, and of armor. Oil in great quantities, for use as food and fuel, was stored in seal bladders and skins. The upshot of the whaling, given an average year, made for considerable surplus of food and a basic ease of life. If, however, the herds changed their course for a year or two, the

269. Oswalt, *op. cit.*, p. 172.

270. Ray, *Report of the International Polar Expedition to Point Barrow*, *op. cit.*, p. 100.



Eskimo woman cooking fish, probably on the beach at Nome, 1906. Alaska State Historical Library, Lomen collection.

many areas. Ducks were dried or frozen and later boiled, dipped in oil or made into soup.

Berries were the only vegetable foods used, and these were often available only through trade with peoples from the south.

In many areas, fish formed part of the secondary diet of the inhabitants. Salmon, tomcod, sculpin, and whitefish were caught and dried.

Fermented fish and fish eggs are an essential part of the native's winter supplies; the first is preserved in pits, the second in birch-bark boxes. ²⁷²

Among the maritime people, it was not unusual for a family to build a semipermanent house at a fishing camp, returning there summer after summer.

Both meat and fish were butchered and sun-dried. Small fish were strung whole and dried. Meat and fish might be buried separately in deep pits in the permafrost or placed together in meat cellars where they decomposed slowly, to be consumed later without further preparation.

result was often starvation, or at least, limited rations. The population of a coastal community rose with a successful year, and declined markedly if few whales were taken, as the inhabitants struck out alone or in small groups to wrest a living from other sources. ²⁷¹

The parts of the walrus which were eaten were the heart, kidneys, liver, ribs, and the brain, which might be eaten raw. However, much walrus meat, which is tougher than that of other sea mammals, was not valued for human consumption in most places, and was used for maintenance of dogs. The flesh of the flippers and shoulders of the walrus was sewn into its skin and allowed to ferment.

Polar bear meat provided variety, but it was not a staple food item.

Wildfowl and their eggs were available in

Clothing

Most Eskimo garments are based on the principle of an inner and outer layer, the air between the two layers retaining heat, so that the warmth of the body cannot escape. Generally, the clothing included an overcoat with a hood which reached below the knees, trousers, mittens, skin stockings, and boots.

Eskimo clothing has been praised, with justification, as the most suitable apparel ever developed for a cold climate, and the basic, best-known item is the parka. The ideal materials for parka manufacture were

271. Spencer, *op. cit.*, p. 27.

272. Zagoskin, *op. cit.*, p. 116.

either prime caribou skins or Siberian reindeer skins. Both were light in weight, provided optimum warmth, and did not wear out quickly nor tear easily. In general parkas were manufactured from two skins, one for the front and another for the back. They were sleeved with portions of separate skins, and there was an opening for the head, to which a hood might or might not be attached. A parka for a woman of childbearing age had a bulky recess at the back to accommodate a young offspring. All parkas fit loosely enough for the wearer to draw one or both arms inside during cold weather. 273

On the whole, so many skins are available that they can afford to be particular in their choice. Seal skin is strong and to a certain degree waterproof; but in very cold weather it is not warm enough. Bear skin is exceedingly warm, and one can fall into the water wearing a pair of tied bear-skin trousers without getting wet; but they are tremendously heavy. Musk ox skin has the same disadvantage, and it is also almost impossible to keep the shaggy fur clean of blood and dirt... Caribou skin is without comparison the best material for clothing in severe cold. 274

Caribou skin also acted as a life preserver, being naturally buoyant. Waterfowl skins were used in making the outer garments on St. Lawrence and Diomedé islands. Salmon skins were used by people along the lower Yukon. 275 Hoary marmot or ground squirrel skins were favored by the people on the coastal area around the mouths of the Yukon and Kuskokwim rivers. Generally, the clothing of the more southerly Eskimo peoples offered adequate protection against the cold, but lacked the refinements known in the north.

The skin is prepared as follows: the wet hide of the seal is smeared on the hair side with fermented fish eggs, and then left, rolled up, for three days in a warm place to rot off the hair. Next the fish eggs are washed off, the skin is stretched on poles, hung out in the air, and wetted with fermented urine until it does not soak through, at which time it takes on a translucent reddish color.

273. Oswalt, *op. cit.*, pp. 137-8.

274. Birket-Smith, *Eskimos, op. cit.*, p. 111.

275. E. W. Nelson, *op. cit.*, p. 31.

276. Zagoskin, *op. cit.*, p. 114.

The fat is cut from the sea-mammal skins with a *pekolka*, or woman's knife (*ulu*), a sharpened piece of sheet iron, set in a wooden handle. Steel is of no use for this work; it either slips or cuts the inner skin. 276



Eskimo woman scraping a seal hide for use in making a parka, boots, or other garment. Alaska State Historical Library, Lomen collection.

Intestines were utilized everywhere as a material for waterproof garments.

The intestines are dried and slit open, and the long, ribbon-like strips thus formed are then sewed together horizontally to form a frock similar in shape to those of fur worn by the men... About the sleeves a braided sinew cord is enclosed in a turned-down border to form a drawstring for fastening the garment securely about the wrist, in order

Eskimo in waterproof shirt, holding model umiak.
Alaska State Historical Library, Lomen collection.

that the water may not enter. In addition the border of the hood about the face is provided with a similar string, the ends of which hang down under the chin . . . These garments are worn over the others during wet weather on shore as well as at sea . . . At such times, when the weather becomes rainy or rough, the hunter dons his waterproof frock and the skirt is extended over the rim of the manhole in which he sits. A cord provided for the purpose is wound around the outside, fastening the border of the skirt down into a sunken groove left for the purpose below the rim on the outside of the kaiak.²⁷⁷

This arrangement was able to withstand the pressure of water even when the wearer was submerged beneath the sea.

Trousers were of seal, dog, or caribou skins. Gloves were not worn until after Russian arrival, but mittens reaching to the elbow were made of sealskin or polar bearskin. White-skinned mittens were worn by hunters, "while creeping prone upon the ice . . . left arm being carried bent across in front of face and head as hunter creeps . . ." ²⁷⁸

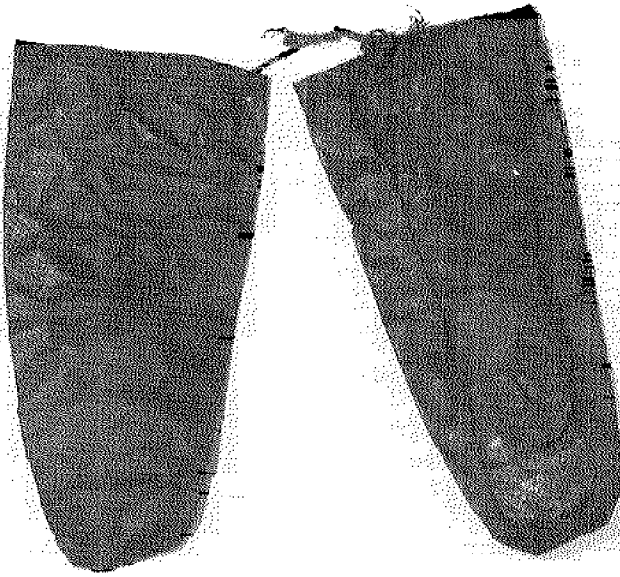
Tanned sealskin mittens were worn at sea. Mittens of salmon skin, bird skin or grass were made by the people who lived in the lower Yukon and Kuskokwim area. "The skins of salmon . . . are dressed and used for making bags, boots, mittens, and waterproof garments by the Eskimo of the lower Yukon."²⁷⁹ In the summer, even trousers and parkas made of fish skins were sometimes worn.²⁸⁰

277. E.W. Nelson, *op. cit.*, pp. 36-7.

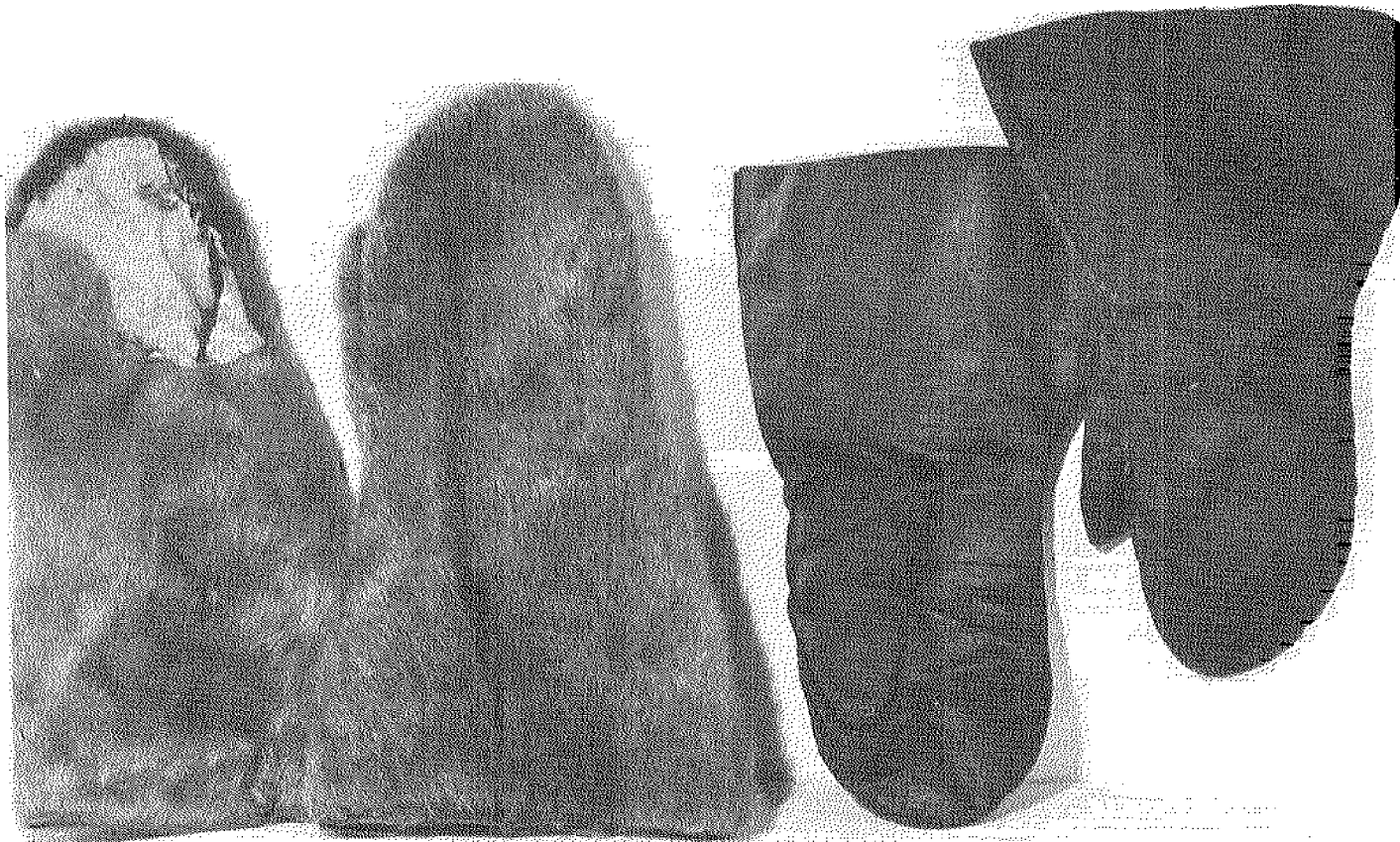
278. E.W. Nelson, *op. cit.*, p. 40.

279. *Ibid.*, p. 118.

280. *Ibid.*, pp. 30-38.



These waterproof mittens were made from salmon skin and sewed with sinew for a watertight stitch (top photo) and from sealskin (bottom photo). Waterproof mittens were used for paddling skin boats and for other work in cold, wet weather, such as creeping over ice while stalking seal. A hunter usually wore soft skin gloves inside his mittens so that his hands would not be exposed to freezing temperatures when he removed his mittens to fire a gun, lash a broken sled or adjust a dog team harness. University of Alaska Archives, Van Valin collection.



Eskimo footgear was especially effective. "Baleen shavings or grass was used for insoles, caribou-skin socks were worn, and polar-bear skins or seal skin (bearded usually) were used for boot soles."²⁸¹ Beluga skins were also used for making water-proof soles and for very fine walrus or whale line.²⁸² The boots themselves were of caribou skin or the throat skin of ringed or bearded seal.²⁸³ The seams were sewed with sinew which, when moistened, swelled to make the boots waterproof. Boots usually were tied just below the knee with strips of sealskin. Bearskin might be tied to the bottom of the boots with the fur side out for silent stalking of game.²⁸⁴



The water boots in this photo are made of fish skin (left) and sealskin (top right and bottom). The sealskin boots at bottom with the epidermis removed were tanned in urine. The soles of the sealskin boots were made from bearded seal. Eskimo women turned up the sides of the soles by making neat rows of creases around the toes and heels with their teeth, then sewed the boots with sinew, making a waterproof stitch. Insoles of duck skin, wood or whalebone shavings, ravelled hemp rope, or dry grass about an inch thick were used to insulate the feet from ice and snow. University of Alaska Archives, Val Valin collection.

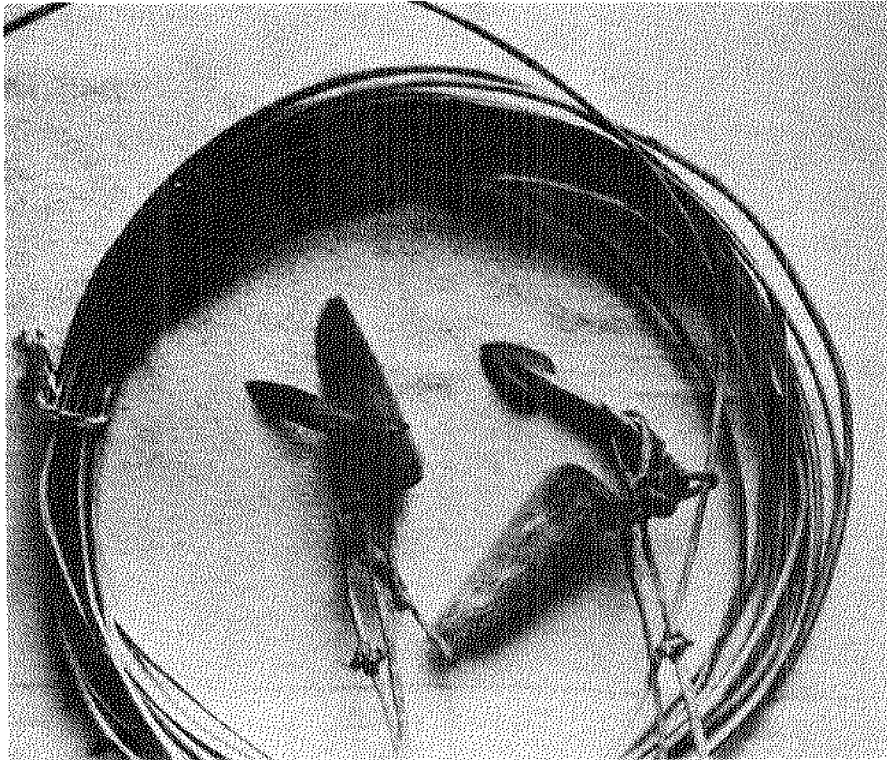
281. Oswald, *op. cit.*, p. 140.

282. Spencer, *op. cit.*, p. 34.

283. Zagoskin, *op. cit.*, p. 111.

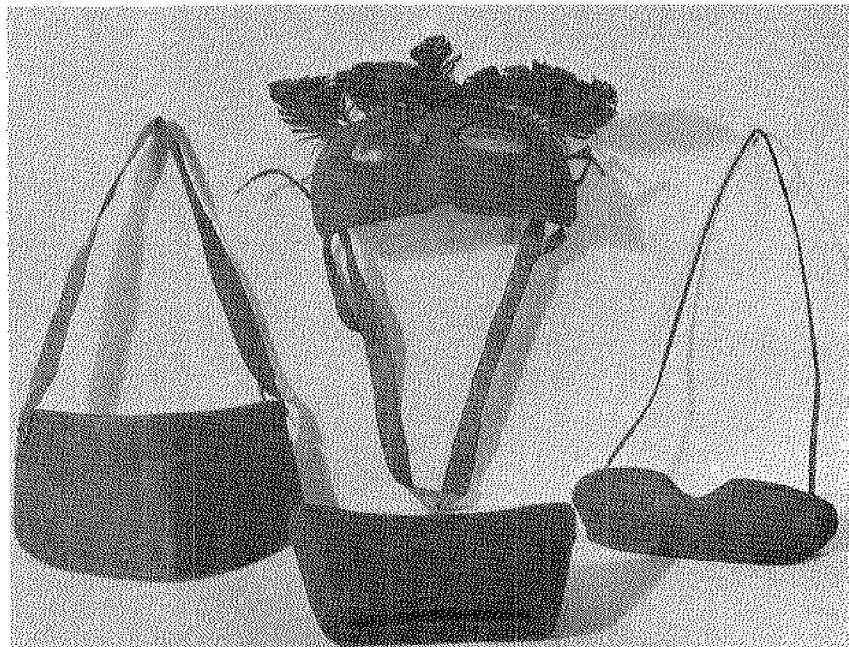
284. Richard Nelson, *op. cit.*, p. 251.

...boots have the soles treated with seal oil, particularly those which are used for sea-ice hunting. The oil protects them from moisture and apparently helps to prolong the life of the sole. The only other important boot care is drying, a very essential factor in maintenance of all skin clothing. Care is taken each night to hang up the boots, socks, and other damp clothing, often on lines strung from the ceiling of the house. 285

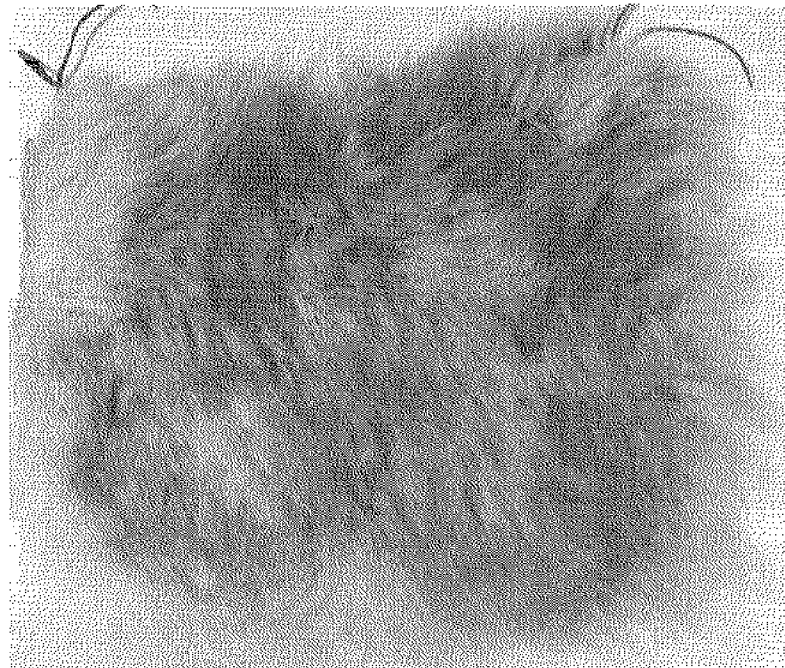


Walrus skin rope and harpoon heads with sealskin sheath. The harpoon head on right has a blade of slate. Alaska State Historical Library, Helms collection.

Visors and goggles of wood, ivory and whalebone were made by the Eskimos to protect their eyes from the intense glare of refracted light from snow and ice. The goggles at top center have walrus ivory eyes with horizontal slits through which to see. Fastened to the goggles are old squaw duck tail feathers which greatly reduced the penetration of extremely brilliant light. University of Alaska Archives, Van Valin collection.



285. *Ibid.*, p. 253.

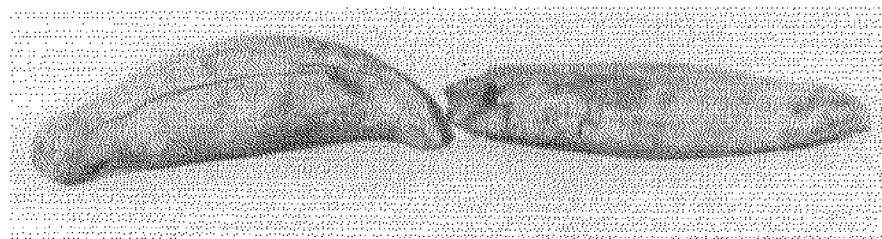


This piece of polar bear skin was hung from the rear of a hunter's belt to serve as an insulating cushion when he sat on the wet, slushy young ice on the ocean to watch for game in open leads. Frozen water does not cling to polar bear fur; the ice which quickly forms on it can be shaken off, just as the bear rids its fur of ice by shaking itself. The polar bear teeth pictured below were considered to be good luck charms. University of Alaska Archives, Van Valin collection.

Among the western Eskimos snowshoes were in common use, both over the sea ice and on land.²⁸⁶

Rawhide lines were made from sea mammal skins from which hair had been removed. The skin was first moistened, then held taut by one man as another cut the skin in a direction leading away from himself, starting at an outer corner and working in circles toward the center of the skin. Hard spots in skins were chewed to make them more pliable. Bags for carrying water and oil were made from the stomachs or bladders of beluga, seal, or walrus. Ice picks and shovels were made of bone, as were needles.

Walrus ivory was accessible to the arctic coastal Inuit as well as to the Yuit of Nunivak Island and in the Bristol Bay region. Along most of the Bering Sea coast walrus were rare or absent . . . It is clear that ivory was worked among all peoples who killed walrus and was traded widely both as a raw material and as finished artifacts. To single out the area in which ivory-carving skill was greatest is difficult. According to Petroff (1884, 135-36), one center was in the Bristol Bay region among people I would identify as Aglemiut, and according to Nelson (1899, 196) another was between the mouths of the Yukon and Kuskokwim rivers.²⁸⁷



286. E. W. Nelson, *op. cit.*, p. 212.
287. Oswald, *op. cit.*, pp. 172-3.



At left, an Eskimo uses a bow drill to make an ivory cribbage board at St. Michael, 1902-1903. Smithsonian Institution, Bureau of American Ethnology. Pictured below are other ivory carvers at work. Alaska State Historical Library, Reed collection.



Boats and Their Uses in the Bering Sea

Construction

Two forms of skin-covered boats were employed by these Eskimos. The kayak, of course, was one of them.

It is not only the great speed and silence of the kayak which makes it the ideal hunting appliance; its extreme lightness is equally important. In most regions it is so light that a man can without much effort carry it on his head, the coaming resting against his forehead. In this manner he wanders over the ice out to the open water or overland from fjord to fjord and thus often saves himself long journeys.²⁸⁸

There is great variation in the form and dimensions of kayaks, because they had to be designed to meet very particular requirements. Those south of Nunivak Island decreased in size until they reached their minimum in the Aleutians. The kayaks belonging to the natives at the mouth of the Yukon and Kuskokwim were stable, roomy and fairly heavy to move. The Nunivak island kayaks had manholes large enough to carry two people back to back. North of Nunivak Island, smaller canoes were used; the Nunivak Island kayak was double the size of the kayak used in Bering Strait.²⁸⁹

These kaiaks (Nunivak Island) are heavily made, the framework being strong and stoutly built, in order to withstand the stormy seas which they have to encounter about this island. A similar form was used on the coast of the adjacent mainland.²⁹⁰

Kayaks of Norton Sound and Kotzebue sound were small, slender and light as were those of Barrow. But those of King Island show a needed return to strength. "These kaiaks (King Island) are strongly made; they are used in the stormy waters of the strait, and sometimes are taken even to the Siberian coast of the strait and to St. Lawrence island."²⁹¹

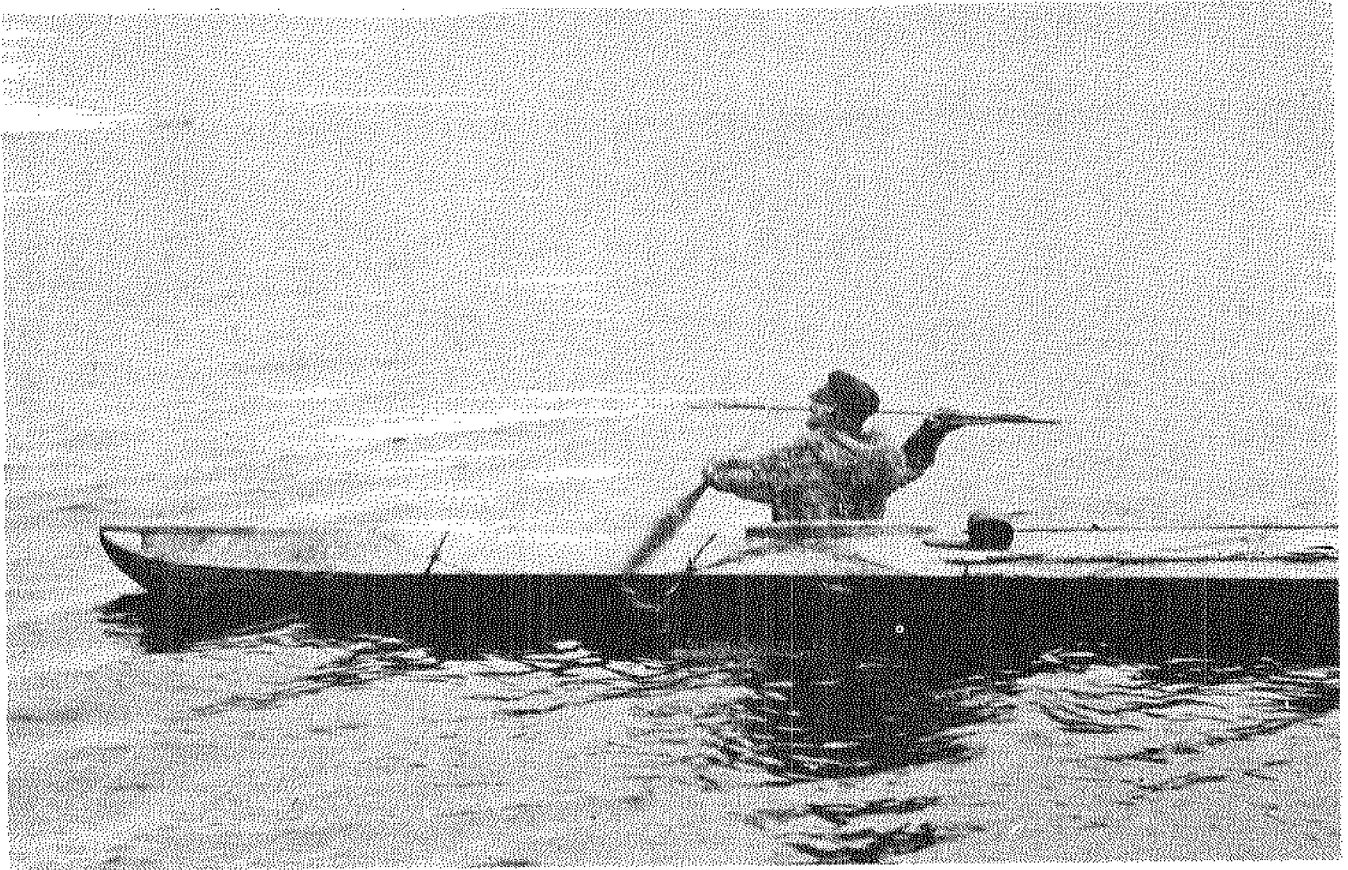
Sealskin with its hair removed was the preferred covering. The skins had to be well-soaked before being stretched over the frame of the kayak. When dried out on the boat frame, they were thoroughly covered with oil, which was permitted to dry before the boat was placed in the water. Either a single- or double-bladed spruce paddle propelled the kayak; the double-bladed form being used only for speed. Forms of the blades varied according to locality. Boat hooks were used with umiaks

288. Birket-Smith, *Eskimos*, *op. cit.*, p. 82.

289. Dall, *op. cit.*, pp. 137-8.

290. E.W. Nelson, *op. cit.*, p. 219.

291. *Ibid.*, p. 220.



Eskimo throwing a harpoon from kayak. Alaska State Historical Library.

and kayaks, particularly for landing the vessels on rocky shores or ice or to fend off ice when paddling about the sea.

It was only when compared to the Aleuts that the boatmen of the north received criticism.

As they are not obliged to go great distances out to sea for their catch, the coastal dwellers are not especially skillful handlers of the kayaks, nor are these anywhere near as seaworthy as the Aleutian ones.²⁹²

I was told that some of the most skillful

among the coast people could upset their kaiaks and right them again by the use of the paddle, but the old men said this feat was now becoming rare as the young hunters were degenerating and were not as good kaiak men as formerly.²⁹³

It is in this area that the umiak comes into its own. This Eskimo cargo carrier was most necessary for family migration by sea, and with it the early Eskimos established themselves on islands far from the mainland and crossed large bodies of water. The umiak had great capacity,

292. Zagoskin, *op. cit.*, p. 116.

293. E. W. Nelson, *op. cit.*, p. 222.



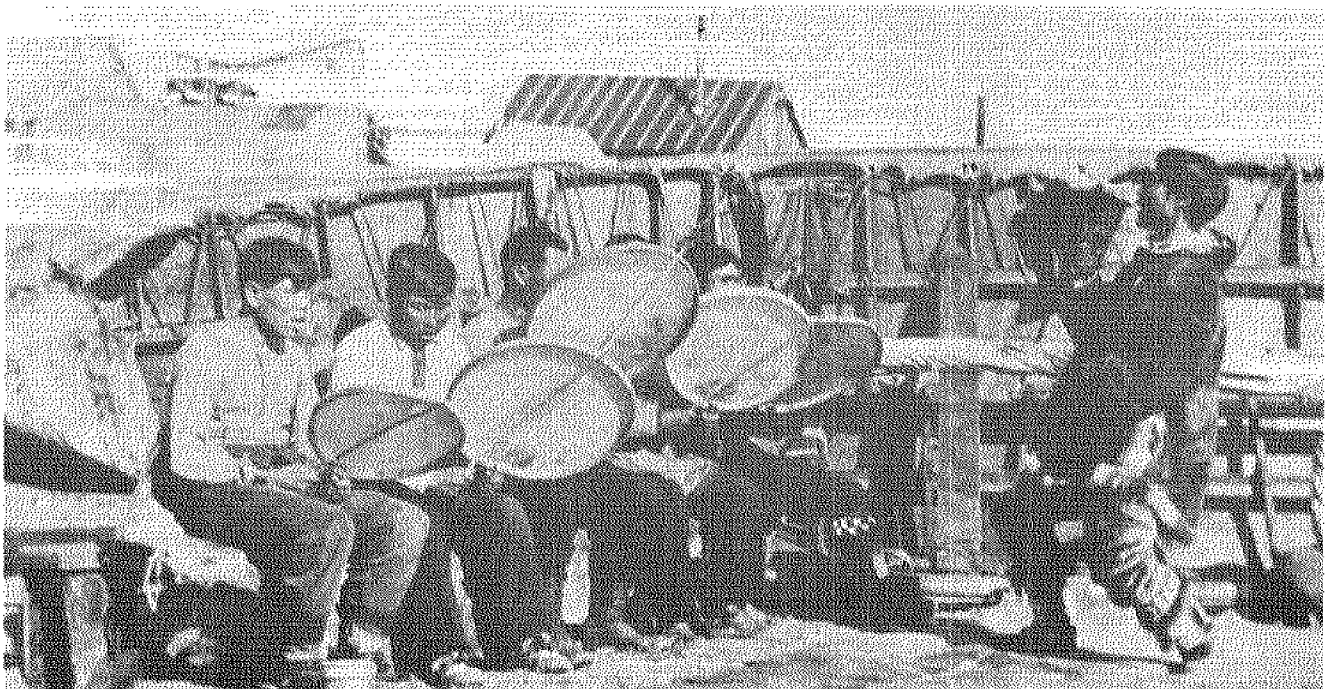
Umiak serving as a shelter near Nome, 1905. Alaska State Historical Library, Dobbs collection.

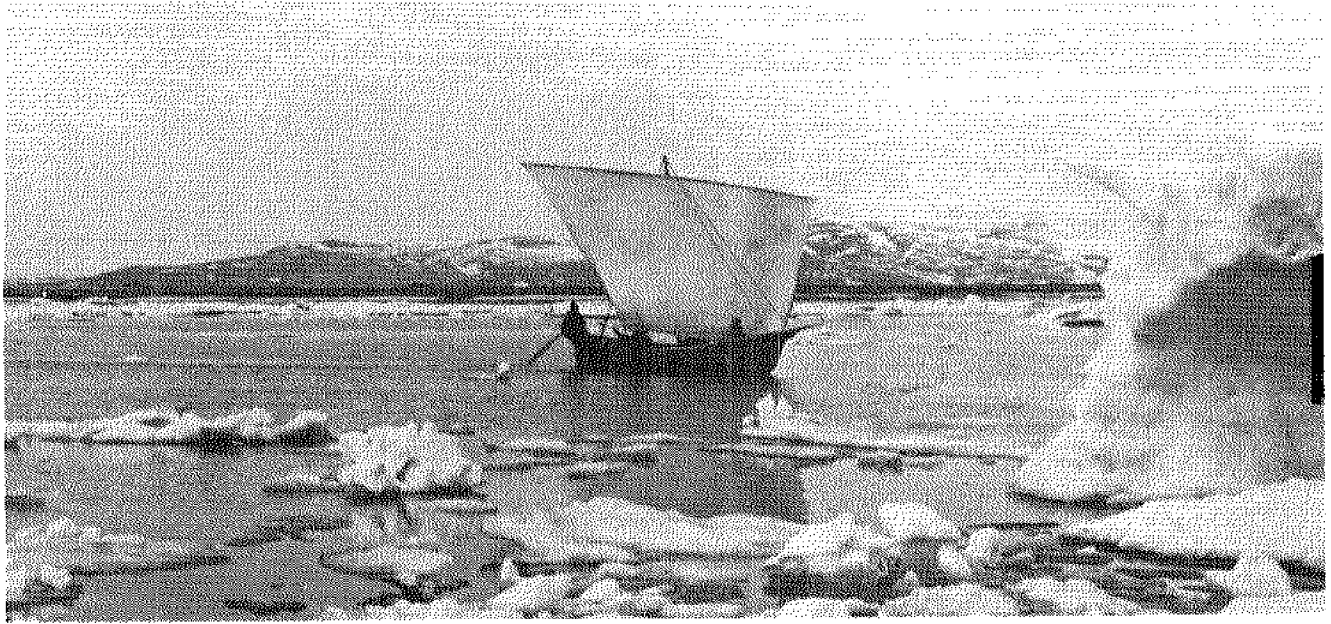
was fast and exceptionally seaworthy. It was light enough to haul over ice, but so tough that it was almost indestructible. "To a far greater degree than any other boat of similar size, this Eskimo boat is characterized by great strength combined with lightness." ²⁹⁴ Hauled on the beach, turned on its side, and supported by its paddles, it provided an effective shelter.

The Arctic Eskimo also made use of a faster and more developed umiak for whaling and walrus hunting.

294. Adney and Chapelle, *op. cit.*, p. 176.

Eskimo dance at Nome, 1910. Alaska State Historical Library, Lomen collection.





Umiak with sail among ice floes on the Bering Sea. Alaska State Historical Library, Lomen collection.

Floating ice is considered a major hazard to craft of all sizes, but the umiak, for example, can resist the shocks of ramming the ice to a degree beyond the tensile strength of the skin covering, by reason of the method of attaching the skin cover to the framework of the hull, and to some extent the form of the boat itself. The skin cover of the umiak is not rigidly attached to the frame in a number of places, but rather is a complete unit secured only at the gunwales and to the heads of stem and stern. This permits the skin cover to be greatly distorted by a blow, so that the elasticity of the material at point of impact is assisted by the movement of the whole skin cover on the frame. Also, the frame itself is flexible and allows distortion and recovery not only within the limits of the elasticity of the wooden frame but also by the movement of the lashed joints in the transverse frames.²⁹⁵

The umiak frame was of driftwood lashed with whalebone, sinew, and hide. The cover was of several bearded sealskins, split walrus hide, or occasionally polar bearskin.²⁹⁶ The boats were approximately thirty feet long, 2½ feet high, and six feet across. Seal oil was applied to the outside of the boat and allowed to dry thoroughly, so that the boat would become impervious to water for a week to ten days.

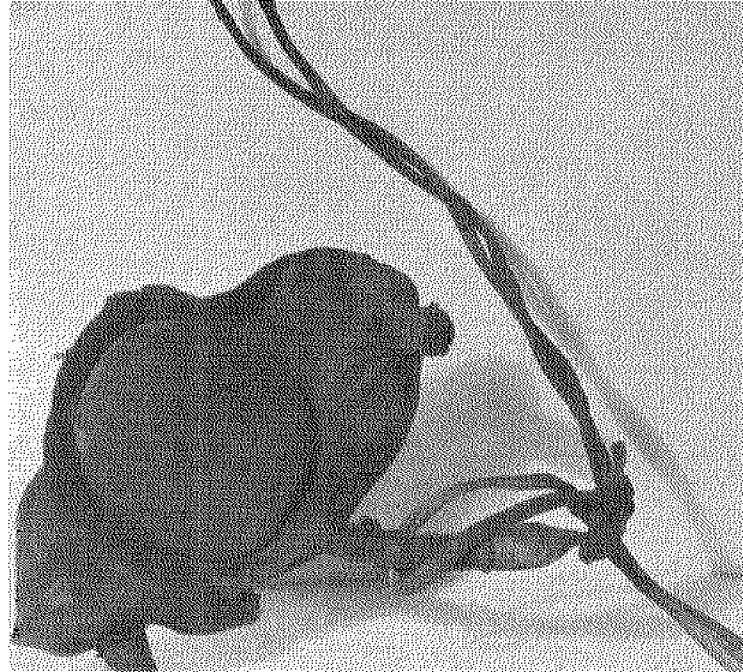
After that time period, it was necessary to haul the boat up on the shore, allow it to dry, and give it another coating of oil. Treated properly, the cover of an umiak could last for several years. The boats were paddled with single bladed paddles and, after Russian arrival, by oars. Oarlocks appeared on St. Lawrence Island which were copied after those seen on whaling vessels. In ancient times, sails were made from grass mats or skins stitched together; later the sails were made of more traditional materials and were designed to imitate the rigging of ships used by whalers and traders.

...on long voyages, a square sail is employed when the wind is favorable. It is made in the form of a rectangle (20 to 30 feet long and 10 to 12 feet wide) from widths of cotton cloth, which are procured from traders of the states and sewed together by the native women. Before the introduction of cloth, dressed deerskin was used; and even now it is not uncommon to see one or more pieces of deerskin in a sail. The mast is held in place at its foot by the lower jaw-bone of a walrus, which is securely fastened to the woodwork in the bottom of the canoe... When thus equipped, the canoe can sail anywhere that a whaleboat can and at a speed of some six to eight knots an hour.²⁹⁷

295. *Ibid.*, p. 180.

296. *Ibid.*, p. 188.

297. Thornton, *op. cit.*, pp. 125-6.



View of a sealskin float showing how openings in the end of the skin were closed, making it an airtight float. The float was attached to a long, walrus hide rope and fastened to the harpoon of a seal, walrus, or whale hunter. The bag was turned inside out, a double-ended, wooden button was pushed through the hole, and strong string made of skin was then tied tightly around the neck of the button. University of Alaska Archives, Van Valin collection.

beyond the range of native craft, which after some sixty hours afloat will become watersoaked, loosen up, and sink.²⁹⁹

The people of St. Lawrence Island equipped their boats with sealskin floats to enable them to remain afloat in rough water.

With their boats fitted in this manner with inflated floats, these people sail fearlessly along their stormy coasts and cross back and forth between the mainland (Siberian) and St. Lawrence island.²⁹⁸

The American mainland, however, some 140 miles northeast of the Puduk group, lies far

Flaps were used which could be rolled out and strongly laced to keep cargo dry when boating in stormy weather and "bulwarks of sea-lion skins a foot high to keep the water from dashing in."³⁰⁰ The umiaks of the residents of Norton Sound were of such length and capable of such speed that they "make occasional voyages from Norton Sound to Bering Strait, and to Aziyak (Sledge) and Ukivak (King Island)... I happened to see one such umiak, 52 feet in length, with two masts and (wave- and spray-deflecting) sideboards which could be removed or put in place depending on the weather. In heavy weather inflated seal bladders are lashed to both sides of the hull to steady the boat."³⁰¹



This photograph of an umiak by Frank H. Nowell of Nome appeared in the book "Art Work of Seattle and Alaska," published in 1907. Alaska State Historical Library.

298. E. W. Nelson, *op. cit.*, p. 218.

299. Rainey, *op. cit.*, p. 463.

300. John W. Kelly and Roger Wells, *English-Eskimo and Eskimo-English vocabularies* (Washington: Government Printing Office, 1890).

301. Zagoskin, *op. cit.*, p. 117.

Boat Use

Even in aboriginal times these Eskimo people were not as highly skilled as other Alaskan natives in the use of the kayak, and they generally avoided rough water. Yet, every man was trained from boyhood in kayak use until he became skilled and confident.

When the seal hunter on the Bering Strait... has lashed his water-proof skin jacket round the coaming and about his wrists and face, he is so much a part of his kayak that he will purposely allow himself to capsize while a heavy sea rolls over him. He comes up again by means of special movements with the paddle, and there are some men who can manage with their arms alone if the paddle should be lost.³⁰²

The men lead a hard and perilous life in the districts bordering the sea, where much of the hunting is done in kaiaks. In spring they go long distances offshore, and are sometimes cast adrift on the moving ice, requiring the greatest effort to return to the land. In a number of instances that came to my notice men were forced to spend one or two days fighting their way back to shore in their kaiaks, after having been driven seaward after a strong wind.³⁰³

In summer the Eskimo uses his kayak two or three times a day: on going out a little way from the beach to examine his salmon nets... Besides, he often takes this small craft with him on his trips to Kotzebue Sound.³⁰⁴

...their arms are powerful, as might be expected of a race to whom rowing and paddling, harpoon throwing and skin scraping are daily occupations.³⁰⁵

During the summer months these social, mobile people traveled widely to trade or hunt, using umiaks and skin tents, which were ideal for this type of mobility.

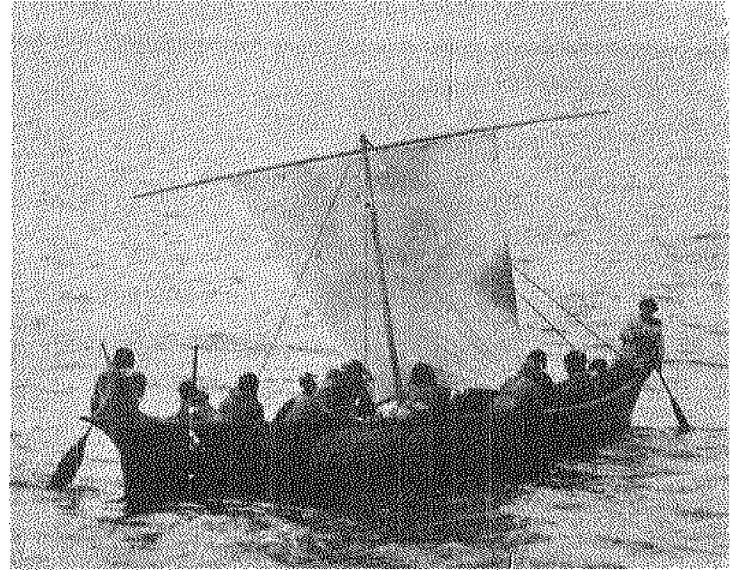
302. Birket-Smith, *Eskimos*, *op. cit.*, p. 80.

303. E. W. Nelson, *op. cit.*, p. 29.

304. Thornton, *op. cit.*, pp. 128-9.

305. Birket-Smith, *Eskimos*, *op. cit.*, p. 41.

306. Hooper, *op. cit.*, p. 28.



Umiak under sail. Alaska State Historical Library.

These natives are nomadic in their habits; although they have winter-houses, to which they return each fall, they travel all summer. Their manner of traveling is peculiar to themselves; they use the oomiak, in which is stowed everything belonging to the entire family, except the working-dogs... The men use paddles and the women oars; they carry a square sail. An ordinary oomiak contains, in addition to the stock-in-trade of oil, skins, etc., a tent of drilling or deer-skin, guns, traps, spears, bows and arrows, a kyack, a seal-skin poke filled with water, a quantity of dried meat, a sled, several pairs of snow-shoes, a fish-net, and several smaller nets for catching birds, a large drum on a pole for the use of the 'shaman,' and several seal-skin bags containing skin clothing.

The *personnel* consists of three or four men, about as many women, and two or three children. Add to these two or three dogs, each with a litter of puppies, and some idea may be formed of what a traveling oomiak contains.

The working-dogs are often left on the beach to follow on foot, which they do, keeping up a continual and most dismal howl. If the wind comes in ahead, and the natives desire, for any reason, to continue their journey, they paddle in near the shore, harness their dogs, and attach them to the oomiak, after the manner of a canal-boat and horses, settle themselves in the boat, and... go on their way at the rate of four or five miles an hour...³⁰⁶



Trading and fishing party moving along the Alaska coast, probably in the Bering Sea. Alaska State Historical Library.

Trade

The trading connections of the ancient Eskimo people were extremely extensive. Dr. Chance, in quoting the journal of John Simpson, tells of four great trade centers:

The first at Cape Prince of Wales was a port of entry for Asiatic wares. Here the Siberian Eskimo met the Eskimo from the region of Norton Sound. Once trading at this center had been concluded, the Cape Prince of Wales Eskimo sailed to the second major rendezvous near Kotzebue. At this center, inland Eskimo of the Noatak and Kobuk rivers obtained trade goods of Asiatic origin, which they then took back with them in the fall. The following spring these Eskimo brought goods down the Colville River to the now-abandoned village of Nirlik on the Beaufort Sea, where active commerce took place with the nearby Point Barrow Eskimo. Iron and copper kettles, double-edged knives, tobacco, beads, tin for making pipes, and such items of inland Eskimo manufacture as deer skins, fox fur, feathers for headdresses, and arrows were exchanged for whale and seal oil, whalebone, walrus tusks, sealskin, and other maritime products.

Still later in the summer the Point Barrow Eskimo continued east along the coast to Barter Island, the fourth center, where, with the Mackenzie Eskimo and north Athapascan

Indians, they exchanged surplus Russian and Inland Eskimo goods for *muktuk* (whale skin), stone lamps, English knives, beads, guns, and ammunition. The English trade goods were obtained from the Mackenzie post of the Hudson's Bay Company. During the following winter some Point Barrow Eskimo regularly sledged to Point Hope where they traded goods previously received from the Mackenzie delta Eskimo.³⁰⁷

By 1649 the Russians had established the post at Anadyrsk, and European goods started to come into Alaska from the Chukchi and the Siberian Eskimos by way of the people of the Diomed Islands, Cape Prince of Wales and King Island. By the early 18th century these Alaskan Eskimos had become the middlemen of this intercontinental trade.³⁰⁸ The Siberian traders were able to provide tobacco, tea, metal products and caribou skins.

According to traditions of the Unalit, the people on the coast of Bering Strait, in ancient times, made regular summer trading voyages back and forth across the strait . . . the use of tobacco was introduced among them, before they were brought into direct contact with white men, by means of trading with their Asiatic neighbors, who brought across Bering strait small bundles, called "hands," of Circassian leaf tobacco.

307. Chance, *op. cit.*, p. 13.

308. Petroff, *op. cit.*, pp. 2, 125.

In ancient times intertribal communication along the coast was irregular and uncertain, owing to the hostile attitude of the people toward one another. For this reason trading was then confined to those villages which happened to be on friendly terms. Now the old barriers have been broken down, and active barter between the different communities has become a marked feature of their life. This is particularly the case among the people living between the Kuskokwim and Kotzebue sound. The numerous fur-trading stations which have been established among them, and the visits of trading vessels and whaling ships to the coast of Bering strait, have served to quicken and encourage among them the spirit of trade. In summer the people of Bering strait make visits to the head of Kotzebue sound and to the mouth of the Yukon, carrying the skins of tame reindeer purchased from the people of the asiatic coast, for which they receive in barter skins of various fur-bearing animals that are used in turn for trading with vessels in Bering strait or with their Asiatic neighbors. For the latter purpose beaver and land-otter skins are the most greatly prized, as the Chukchi of Siberia will always offer two full-size deerskins for one of either of the skins named. They cut them into strips for trimming the collars of their deerskin coats, and use them also for trading with the Russians . . .

In the month of August, 1879, we were visited at St. Michael by an umiak from

Cape Prince of Wales, and another from King Island. In July, 1881, a number of umiaks arrived from the former place. These all brought deerskins and tanned items of seal and walrus for trade. The umiaks in full sail, crowded with fur-clad people, dogs, and their various possessions, made a very picturesque sight. Among the men were some Chukchi from the north coast of Siberia. These were recognized by our officers, who had spent a couple of weeks with them earlier in the season . . .

The St. Lawrence islanders make frequent trading voyages to the Siberian coast, where they obtain reindeer skins for clothing. Formerly these people went along the American coast as far as Cape Nome . . . 309

Besides going to the Kotzebue Sound district, they likewise make trading voyages to the Diomed Islands, to East Cape and other adjacent Siberian points . . . and even to Indian Point (on the Asiatic side), which is about 150 miles from Cape Prince of Wales in a southwesterly direction. And all of these journeys are made in frail-looking canoes of walrus hide.

The voyages take place in the months of July, August and September. As a rule, the whole family goes along . . .

In going along the coast, they generally stop at nightfall, haul their canoes upon the beach, turn them on their sides, and, by putting walrus-hide curtains in front of them, make comfortable tents.³¹⁰



Eskimo trading party on the ice near East Cape, Siberia.

309. E.W. Nelson, *op. cit.*, pp. 228-232

310. Thornton, *op. cit.*, pp. 120-1.



Eskimos from East Cape, Siberia arriving at Nome. University of Alaska Archives, Lomen collection.

Contact between the inland dwellers and coast dwellers was maintained both in warfare and in trade. The coastal people required the caribou and wolverine skins as parka material to survive hunting on the ice; other skins were heavier, less durable, or provided inadequate protection. The inland people needed driftwood and the bearded seal, walrus and whale products of the coastal people.

Neither way of life was sufficient unto itself beyond the north Pacific; there was, rather, a dependence on resources from both areas. If a people could not hunt both sea mammals and caribou, they relied on trade for a balance of products.³¹¹

The trade resulted in an economic interdependence between the two groups which gave each society a high degree of stability. Marriage between the two groups did not occur often, perhaps because of the different kinds of skills which each setting demanded.³¹² The trading center at Hotham Inlet near modern Kotzebue was likely the largest center, involving the greatest number of traders. It was visited by the river people and by those who came from as far away as Bering Strait, the Diomedes Islands, King Island, and Cape Prince of Wales.

In July, 1881, we found at Hotham Inlet a row of over 150 conical lodges set up for over a mile along the beach, which were occupied by Malemut from Selawik lake and natives from Kowak and Noatak rivers. In 1880 Captain Hooper found about 1200 of these people encamped at Cape Blossom, but

in 1881 the main camp had been located at Hotham inlet. When we arrived there we saw a small trading schooner lying off the village, surrounded by umiaks three or four deep and the deck crowded by a dense mass of the Eskimo... As we proceeded up the coast a number of umiaks were seen on their way to the camp at Hotham inlet, and at many points we saw umiaks on trading trips up the coast...³¹³

On July 17, we got under way and steamed up past Choris Peninsula to Cape Blossom, a cliff ten miles south of Hotham Inlet, where we found a large number of Indians congregated, waiting for trading-vessels to arrive. Cape Blossom and the mouth of Hotham Inlet are the principal places of rendezvous for natives from the surrounding country. The coast natives, from Cape Prince of Wales to Point Hope, including the Diomedes and King's Island, assemble here about the last of July to meet those from the interior, who come down the Koogarook, Sulawick, Buckland, and another large river, which empties into the Hotham Inlet on the north side, call by the natives "Noyatag"...

These natives collect for the purpose of trading not only with vessels, but also with each other. The coast natives bring oil, walrus-hides, and seal-skins; those from Cape Prince of Wales bring whiskey, arms, tobacco, and skins of tame reindeer, which they purchase from the Tchuktchis. These articles are exchanged with the natives of the interior for furs - wolf, fox, marten, mink, etc.³¹⁴

311. Oswalt, *op. cit.*, p. 242.

312. Spencer, *op. cit.*, p. 129.

313. E.W. Nelson, *op. cit.*, p. 231.

314. Hooper, *op. cit.*, pp. 25-6.

Perhaps as a result of the extensive trade in the area, the Kotzebue sound people, middlemen between the Bering Sea and the Arctic, became especially shrewd and aggressive traders, extending their sphere even to the Kuskokwim river and Bristol Bay.³¹⁵

Spencer summarizes the pattern of movement in the extreme north as follows:

The people of nuwuk (Pt. Barrow) and utkeeavik (Barrow) traveled along the Arctic coast to the mouth of the Colville . . . The place of meeting was negliq, located on one of the western mouths of the Colville Delta . . . This was not a permanent center and was active only for two or three weeks of the year during which the trading took place. A second emporium, somewhat further removed to the east, was Oliktuk Point, a less frequently attended center where partners from Barter and Herschel Islands were met.

"The kugmiut, those who live at the present village of Wainwright, did not go to negliq for the trading. They, like all other tareumiut went south to the Kobuk, traveling down the Utokak River, portaging over to the Noatak, and so down to Hotham Inlet to kinaliq (modern Kotzebue). They also traded . . . at the mouth of the Utokak on the Kasegaluk lagoon . . . Many of the kugmiut (Wainwright) did not go the entire way to Hotham Inlet and contented themselves with proceeding down the Kuk River as far as kanic, a point on the headwaters . . . The kayaakserevinmiut, those of Icy Cape, followed the same course, taking the route via the Utokak to kinaliq (Kotzebue).

For the tikeragmiut (Point Hope), the route was somewhat easier. They went by the coast to Hotham Inlet directly or had the alternative of working inland to the Noatak and so down this river to the trading center . . . The numbers of those who came to the trading centers tended to vary from year to year . . . At negliq, in a peak year, it would apparently not be unusual to find as many as 600 people present, although 400-500 would perhaps be a more normal figure. As has been stated, a roughly similar

number might be found at utokak, on the Utokak River mouth, while kinaliq (Kotzebue) had a somewhat larger assemblage.³¹⁶

Like their inland partners, the coastal traders often had to make use of fresh-water streams as roads to trading centers. In the most northern areas, the ice had often not receded enough by late June, the time when the trading expeditions started, to allow convenient travel along the coast. If the sea were used, the vessels stayed close to the shore. The trading centers usually broke up about the 15th of August, when the people slowly began returning to their home villages, hunting along the coast as they traveled. If it was anticipated that the journey home would take place after the ice had returned, the umiak might hold a sled for use at that time.

The men involved in the interecology trade often had particular partners at the trading locations to provide an easier basis for trade and a dependable contact. Partners could be inland or coastal people, and one man might have several in different locations. These trading partnerships occasionally resulted in intercommunity exchange of songs and jokes between partners.³¹⁷

The southern Norton Sound villages also traded to the south, with the Yukon natives receiving wooden utensils and beaver, otter, sable, wolf, fox, and wolverine furs for skin boats; tobacco and copper and iron products; sea mammal fats, and deerskin products.³¹⁸

The Yuit tribes did not develop great trading centers such as those found at Kotzebue Sound and the Colville River mouth. The resources in their area were fairly well-balanced, and these were more hostile people, so the need and desire for extensive trade may not have been present. The inhabitants of Bristol Bay traded at the Katmai center.

In the report of Billings' visit to Kadiak mention is made of the water-route across the Alaska peninsula by way of Iliamna Lake. The natives persisted in calling the peninsula an island, *kikhtak*, because they could pass in their canoes, without portage, from Shelikof Strait into Bristol Bay . . .³¹⁹

315. Petroff, *op. cit.*, p. 125.

316. Spencer, *op. cit.*, pp. 198-200.

317. *Ibid.*, pp. 172-3.

318. Zagoskin, *op. cit.*, p. 101.

319. Bancroft, *op. cit.*, p. 287.

After 1850, commercial whalers arrived in the Arctic Ocean who were anxious to trade with Eskimos for supplies of baleen. The people were paid in flour, crackers, matches, lead rifles, ammunition, and molasses. Even after the demand for baleen fell off, many of the vessels continued the trade.³²⁰

There were feuds, some of long duration, among Alaskan Eskimos, but little real warfare. The coastal and inland peoples were too dependent on each other to permit mutual hostilities to disrupt their economic ties, and many of the coastal communities retained kinship ties.

In ancient times the Eskimo of Bering Strait were constantly at war with one another, the people of the Diomedede islands being leagued with the Eskimo of the Siberian shore against the combined forces of those on King Island and the American shore from near the head of Kotzebue sound to Cape

Prince of Wales and Port Clarence. An old man from Sledge Island told me that formerly it was customary among the people of the Siberian coast to kill at sight any Eskimo from the American shore who might have been driven by storm across the strait, either in umiaks or on the ice.

I was also informed that at one time the inhabitants of the lesser Diomedede island became angry with those of the greater Diomedede Island and united with the people of Cape Prince of Wales against them, but were defeated. The last war party in this district came in a fleet of umiaks from East Cape, Siberia, and the Diomedede islands, and sailed up Port Clarence, but meeting a large force of the American Eskimo, both sides agreed upon a peace, which has not since been broken.

During the wars formerly waged among the people living on the coasts and islands of



Eskimos traveling southward from Point Barrow to Point Hope on USS Thetis, 1888. Alaska State Historical Library, Lomen collection.

320. Van Stone, *Eskimos of the Nushagak River*, *op. cit.*, pp. 160-61.



Umiaks alongside Revenue Cutter Bear, Kotzebue Sound. Alaska State Historical Library.

Bering strait, there was in common use a kind of armor made of imbricated plates of walrus ivory fastened together with sealskin cords.³²¹

The people of Point Hope once claimed control over all the country from Kotzebue Sound north to Icy Cape, and eastward as far as Deviation Peak, which is slightly northwest of Kiana on the Kobuk River. A great land and sea fight took place between Point Hope and Noatak Eskimos in 1800, at which the Point Hope people were badly defeated and forced to withdraw from all that part of the country.³²²

Formal hostilities between Nuniwagamiut (Nunivak Island) communities do not exist; neither did the Nuniwagamiut fight the adjacent Eskimos of Hooper Bay or Nelson Island, among whom they had relatives and friends. Collectively, these groups were allied against the Ikogmiut (residents of the Yukon River delta), whom they fought only during the summer. Offensive warfare was to avenge the death of a relative or to surmount a previous defeat in battle . . .³²³

Feasts and festivals were many and varied, drawing people from an area as large as 200 square miles.³²⁴ They might be held in conjunction with the great trading fairs or independent of them, but whatever the occasion, they served to promote solidarity and cultural uniformity between the people of adjacent villages and districts. Kinship ties went far beyond one area.³²⁵ The trading or

Messenger Feast was the principal social event of the year. Its chief purposes were to appease the spirits and display the wealth of the chiefs, which reminds one of the potlatch of the Northwest Coast Indians. The feast was particularly elaborate among the Bering Sea Eskimos in the area between the Yukon and Kuskokwim.³²⁶

Such invitations were extended at various times by all the communities up and down the Arctic slope. The village of utkeaavik (Barrow) held such feasts with nuwuk (Pt. Barrow), at the point, with Wainwright, and with Icy Cape. To the east, invitations were likewise extended to Barter Island and to the Colville River settlements.³²⁷

Point Hope "had such festival relationships with Cape Prince of Wales and other communities to the south."³²⁸ The Messenger Feasts were usually held in winter, when the majority of community members were present, and concerted social activity was welcomed. Messengers were sent out by the host community to the guest community with invitations to the event.³²⁹ Invitations included a list of items which the host expected to receive from the guest as well as the opposite. Food was amassed in great quantity, and the households involved spent considerable time preparing clothing, skins, kayaks and umiaks, and sleds, etc. Through the Messenger Feast ties with other villages were reaffirmed, and trading partnerships established.

321. E.W. Nelson *op. cit.*, p. 330.

322. Van Stone, *Point Hope, an Eskimo Village in Transition* (Seattle: University of Washington Press, 1962), p. 19.

323. Oswalt, *op. cit.*, pp. 185-6.

324. E.W. Nelson, *op. cit.*, p. 366.

325. Spencer, *op. cit.*, p. 62.

326. Birket-Smith, *Eskimos, op. cit.*, p. 148.

327. Spencer, *op. cit.*, p. 210.

328. *Ibid.*, p. 211.

329. Oswalt, *op. cit.*, p. 226.

Summary

The use of coastal ice and water by Alaska's Native people was remarkable—greater than their use of land in some major areas. Beyond the quantity of their use, their methods of use were exceptional. Whether it was Eskimo use of ice in the north, Aleut use of water on the chain, or Tlingit activity on the fiords in the south, lives were so centered on the water that the lines which we imagine separate land from water disappeared.

In the Aleutians, a kayak as light as a pocket-book and carried in the same manner gave a traveler immediate and constant access to the water with little or no effort. Among the Aleuts and Tlingits, the extraordinary amount of time spent in boats caused men's bodies to conform permanently more to their position in their boats than to their upright life.

The Eskimos' use of the ice, their understanding of ice cracks and currents, and their understanding of the wind required knowledge that our culture perceives only dimly. The sea provided well and the people prospered.

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