NATIONALMUSEETS SKRIFTER
Etnografisk Række, VI

THE CHUGACH ESKIMO

BY

KAJ BIRKET-SMITH, 1893–

NATIONALMUSEETS PUBLIKATIONSFOND
KØBENHAVN 1953

PREFACE

The following pages contain the ethnological information gathered among the Chugach Eskimo by Dr. Frederica de Laguna and myself on the First Danish-American Alaska Expedition 1933. Jointly, we have previously published our ethnological material from the Eyak Indians of the Copper River Delta (Copenhagen 1938), and a report on our archeological excavations has been prepared by Dr. de Laguna.

It is but natural that my first thanks go to Dr. de Laguna, with whom I spent the unforgetable summer in the North and who has read my work in manuscript form. I am also greatly indebted to Dr. Helge Larsen of the Danish National Museum and to Dr. Erik Holtved, professor of eskimology in the Copenhagen University, both of whom have made many valuable suggestions. Mr. Johs. Gröntved, M. Sc., and Dr. E. Hultén have kindly prepared the list of plants in Appendix II, and I feel much obliged for their kind assistance.

Finally, I owe a deep debt of gratitude to the Rask-Ørsted Foundation, which, with a smaller grant from the Julius Skrike Institution, made it possible for me to undertake the journey to Alaska, and to the Carlsberg Foundation, which enabled me to study the Jacobsen collection in the Museum für Völkerkunde in Berlin and has also contributed generously to the publication of this work. To the museum authorities in Berlin I wish to express my appreciation of the permission to publish the Jacobsen material.

National Museum, Copenhagen.
May 5. 1952.

Kaj Birket-Smith.

CONTENTS

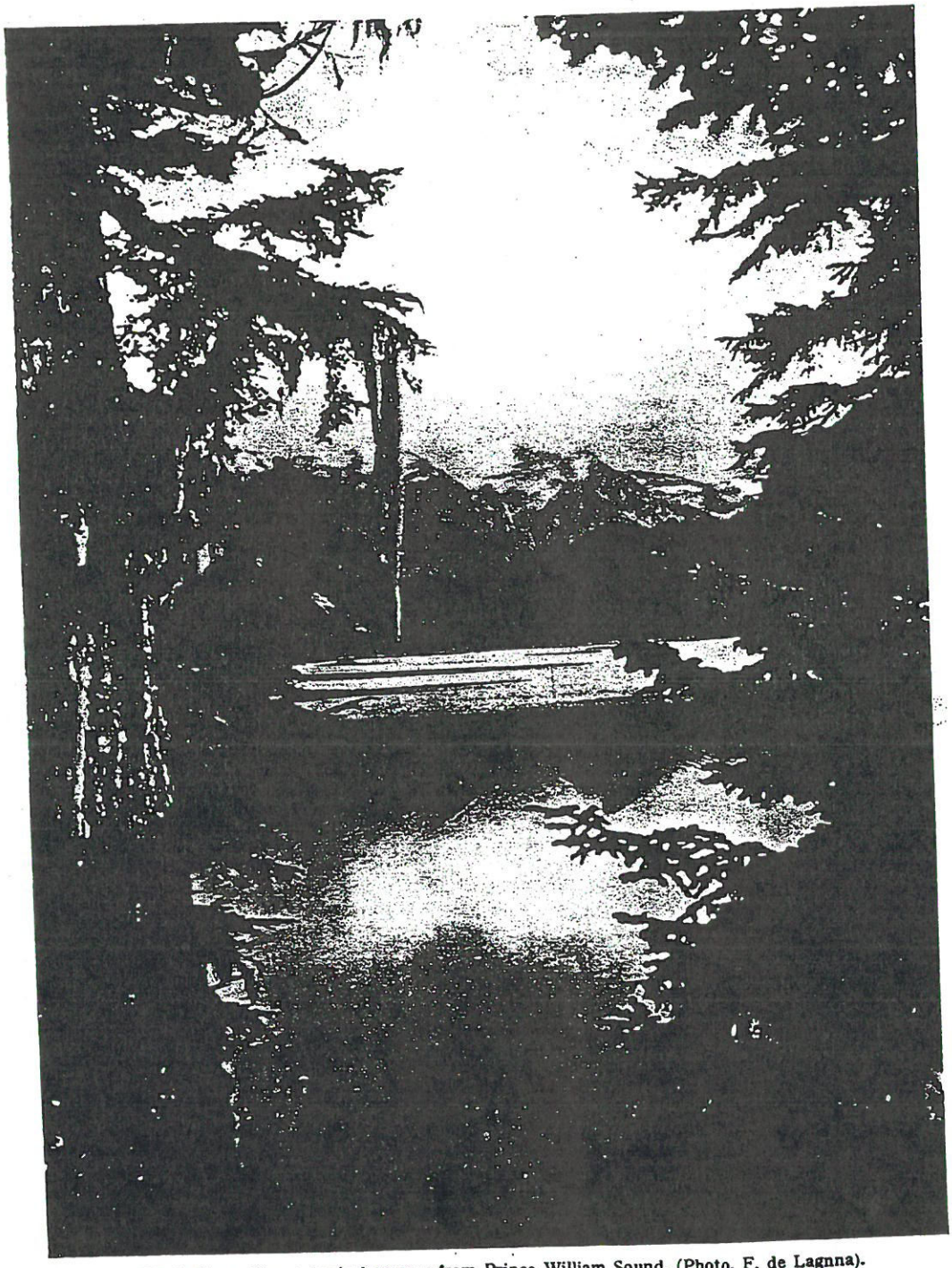


Fig 1. Sheep Bay, a typical scenery from Prince William Sound. (Photo. F. de Lagnna).

INTRODUCTION

The Danish-American Alaska Expedition 1933.

The ethnological material included into this report dates from the First Danish-American Alaska Expedition 1933, in which Dr. Frederica de Laguna took part on behalf of the University of Pennsylvania Museum and the present author as representative of the National Museum of Denmark[1].

In April 1933, after a journey via the West Indies and the Panamá Canal, I arrived at Vancouver, British Columbia, whence I proceeded to Seattle, Washington, in order to meet Dr. de Laguna and Mr. Norman Reynolds, a young student at the University of Washington, who was to act as our assistant during the expedition. Another assistant, Dr. Wallace de Laguna, then a student at Harvard University, did not join us till after our arrival in Alaska. Norman Reynolds was an anthropologist and thus naturally interested in our work. Wallace de Laguna was a geologist, but on the other hand he had travelled in Alaska together with his sister on a former occasion. It would have been difficult, therefore, to find better helpers.

On April 27th we arrived at Cordova in Prince William Sound and immediately started an ethnological investigation of the few surviving Eyak Indians. As soon as the weather permitted, however, we left for the shell heap at Palugvik on the southeastern shore of Hawkins Island, where excavations took up our time till July 22d. For six weeks we were here accompanied by an old Eskimo, Makari (Makaka) Feodorovich Chimovitski and his daughter, Matrona Tiedemann. Both have since died. Makari became our principal informant of ancient Eskimo life in Prince William Sound. After having brought the work at Palugvik to a preliminary end we undertook a few days' archeological reconnaissance in the western parts of the Sound as guests on board the motor boat *Chugach* of the U. S. Forest Service. While Dr. de Laguna and her brother continued the reconnaissance in a chartered boat, Norman Reynolds and I spent the time from July 25th till August 5th with ethnological work in Chenega, where we were hospitably received by Mr. and Mrs. Larry Nonini of the Indian Service School. Mr. Nonini gave us many details concerning the life and customs of the present inhabitants of the place. Here we also met our other chief informant, Stepan Britskalov, colloquially called "Black Steve". From Chenega I returned to Cordova and, after a hurried visit to the Ahtena Indians at Chitina, to which I was invited by the now abandoned Copper River and Northwestern Railroad, I started on the home journey via Seattle, Chicago and New York, arriving at Copenhagen after

[1] Other Danish-American Alaska expeditions were carried out in 1939, 1941, 1942, 1948, 1949 and 1950 in co-operation with the University of Alaska, the American Museum of Natural History, New York, and the University of Pennsylvania Museum. In these investigations the National Museum was represented by Dr. Helge Larsen, in 1948 together with Professor Erik Holtved.

exactly six months' absence. The rest of our party stayed until September 9th in Prince William Sound, mainly in order to continue the excavations but also to complete our ethnological research; during their sojourn some additional information was obtained, *i. a.* from Makari's younger brother, Paul Eliah (Pavel Ilya) Chimovitski.

As one of the results of the expedition Dr. de Laguna and I have previously published our ethnological material from the Eyak[1]. A report on the archeology of Prince William Sound based upon our excavations has been prepared by Dr. de Laguna, who has kindly put her manuscript at my disposal, and the ethnology of the Eskimo population is described in the present work[2]. It should be added that a grant from the Carlsberg Foundation enabled me to study the Chugach collection in the *Museum für Völkerkunde* in Berlin in 1935. This collection, the fate of which after World War II is unknown to me, was procured as early as 1883 by the Norwegian captain J. A. Jacobsen and, though limited in extent, constitutes a valuable source of information about Chugach material culture. In 1949 I had also the opportunity of examining some masks from old graves in Prince William Sound formerly described by W. H. Dall and now kept in the U. S. National Museum in Washington, D. C.

Native Informants.

The study of a vanishing culture, which can only to a very limited degree be based upon actual observation, depends almost exclusively on oral information, and the personal experience, memory, and character of the native informants are under such circumstances of paramount importance. For this reason some remarks on our informants are included here.

Makari or, with his native names, Alingun Nupatlkertlugoq Angakhuna, was the oldest Eskimo in the Sound (Fig. 2). According to his own statements he was 86, and at any rate he remembered very distinctly the time when the Russians owned the country. His legs were a little weak with rheumatism: it was, he said, because he had supported so many dead persons against his knees. His glance, however, was as clear and steady as that of a youth, and he never parted with his gun even now in his old age; one of his greatest pleasures was to take apart and clean our bear rifle. He was of noble descent, belonging to the chief's family at Nuchek, where he was born, but his features and heavy, gray moustache proved that he had also some Russian blood in his veins. His grandmother was a woman from Kodiak, and his great grandfather an Indian from Yakutat called Atasha, who had married the daughter of an Eskimo chief on Mummy Island. He was a pious Christian who punctually observed the numerous holidays of the Greek Orthodox Church. Once he and some other Eskimo had found a human skeleton in a burial cave near Palugvik, and before re-burying the bones they baptized the skull[3]. Nevertheless he clung to the aboriginal religious ideas which, in spite of Church and School, prosper to this very day at least within the older generations. Many of his early experiences dealing with spiritual powers are given later in this report.

It was quite clear that Makari rejoiced in telling us about life in the old days and his

[1] Birket-Smith & de Laguna 1938.

[2] A preliminary report on the results of the expedition (Foreløbig beretning om den dansk-amerikanske ekspedition til Alaska 1933) was published by the author in *Geografisk Tidsskrift*, XXXVII, Copenhagen 1934. A popular account, *Guld og grønne Skove*, appeared in 1935.

[3] Cf. a somewhat similar incident at Point Hope (Rasmussen 1952, 49).

adventures as a young man. While we were occupied with digging during the day he spent many hours in refreshing his memory and was greatly vexed if, for instance, he had forgotten the words of a song in one of the legends. On the other hand he also demanded serious work on our part. One of the first tales we wrote down I had to read aloud word for word so that he might control that nothing was forgotten or omitted.

Makari knew a little Russian but practically no English. During his sojourn at our camp he was, however, accompanied by his daughter, Matrona ("Ma") Tiedemann, with

Fig. 3. Makari Chimovitski (Photo. K.B-S.).

her native name Shanuq, who was married to a German born fisherman and fox farmer, Mr. August Tiedemann. Whereas Makari always retained something of a chief's dignity, his daughter shared to a considerable degree the broad cordiality of "common people". It was, I suppose, the result of the different social status of two generations. The old man belonged to a period when, in spite of foreign rule, the natives were still to some extent masters of their own country. The daughter, however, represented the present day when they definitely constitute a lower class.

Ethnology did not interest her very much, unless it had some connection with persons she knew, as was sometimes the case with the tales of shamans and their deeds. Then her attention was roused, and her knowledge of the *chronique scandaleuse* of Prince William Sound seemed indeed unlimited. The advantage was that her information often had a personal character that added a tinge of life to the otherwise somewhat dull picture of a culture already nearly dead. However, her eloquence unconsciously betrayed a way of thinking as primitive as that of her father, notwithstanding the fact that she liked to emphasize her religious scepticism. After all it was only due to her implacable disgust

of everything Russian. As a child she had gone to school. There was no teacher where she lived, and therefore she and a girl friend had to be paddled to another village on every school day, lying cramped inside a baidarka. It was no pleasant trip within the narrow, dark and evil-smelling skin boat, but the teaching was still worse. The teacher was a Russian priest who thrashed his pupils liberally and so produced an obstinate adversion against everything he tried to impress, as in this case against the doctrines of the Orthodox Church. Still the incredulity of Ma was to a great extent limited to her tongue. In reality all sorts of superstitions and bits of old Eskimo lore had made an inextricable compromise in her mind.

Ma's mother was a twin and the daughter of a twin. Twins are considered lucky persons, and even as a child she knew that she would become rich when she married. She also knew the day when she was to die but would not tell it to anybody until a year before her death. She was likewise able to tell if a woman was going to give birth to a boy or a girl, or twins. If you dream about the "Diamond Island" where the souls of unborn twins are living (cf. p. 124) you will have twins. When Ma was expecting a child, her mother used to ask if she ever saw the "diamond" shores. Ma, however, dreamed about a sparrow, and her mother told her that her first child would be a boy. It was Arthur. For Mary, she dreamed that she caught a frog and put it inside her clothes; Mary has protruding eyes like a frog. Otto was a spruce hen and Frieda a weasel—she is quick like one. But apparently Ma's mother was not satisfied and said: "Take two! Why did you not take two?"

As a child Ma had often prayed to God to become a shaman, but she never succeeded. On the other hand her stepmother, Makari's second wife, had been one, as Ma had herself experienced. Once her father and stepmother were drinking together with her husband. The stepmother was angry with Ma because she would not drink. So she tried to kill her by charming her food to make her sick. In fact, other dying people had blamed her for their death. The stepmother came in drunk to Ma. She pointed at her, saying: "My name wouldn't be mine if you live to-morrow." Ma said: "I'll kill you before you kill me." "You'll do it with your tongue!" "You try!" "I'll fix you," and she spat on Ma's face. Makari was crying. Towards morning Ma woke up. She could see her stepmother coming in with a man all covered with fur. She pointed at Ma. When Ma woke up she had pleurisy—a pain inside her lungs. Makari called his wife. Then Ma told her what she had seen during the night. The old woman was sober now and cried: "I wouldn't do it to you. I like you, my daughter." So Ma told her: "You did not do it." Makari made five cuts in Ma's side and drew out the water. But Ma "fixed" her stepmother. She got sick for two or three months. The old woman said: "I'll never try you any more." Ma could have killed her when she entered during her dream. Ma had said a prayer out of her book. That was what made her stepmother sick. This tale, which is related here with practically the same words as we heard it, gives a vivid though not very edifying picture of the intimate life of a native family after the introduction of alcohol by the white man.

Stepan Britskalov or, with his Eskimo name, Atlutaq was again different (Fig. 3). For some unknown reason he was nicknamed Qumla, "frozen tail", after a pig that had no curl in its tail. He was called Atlutaq after his grandmother's father, who lived on Wooded Island outside Montague Island. His ancestor exercised and practised ten years in the woods and became a very strong man and a great whaler. He hunted brown bears with a club, not with a spear, and could run down foxes until they tired out, when he would pick them

Fig. 3. Stepan Britskalov. (Photo. K.B-S.).

Fig. 4. Mrs. Britskalov. (Photo. K.B-S.).

up and carry them home. Some people, including natives from Kodiak, tried to kill him, but although he was not a shaman they did not succeed. Our Atlutaq, his great grandson, was a grave and handsome man, looking more like an Indian than like an Eskimo. He did not seem to be more than 50 but gave his own age as 59. His parents came from Atrhaq (Stockdale Harbor) on Montague Island, but he himself was born at Ellamar, whence he moved to Tatitlik and lived around Valdez for ten years. Later—exactly when he did not remember—he came to Chenega. He was proud to be independent and not working for the canneries. He was the only man in Chenega who could build a baidarka unassisted, just as his wife, a Tatitlik woman, was the only person who could still make the old-fashioned gutskin clothes (Fig. 4). He had three sons and one daughter, all grown-up, besides several small adopted children.

Stepan was always willing to talk, and very soon we got on intimate terms. Unfortunately he spoke very little English, and his 25 years old son, Robert, was a mediocre interpreter. Still, much information was obtained both on material culture, ceremonial, and religion. Thus, for instance, his accounts of his meetings with the Spirits of the Sea and the Land throw a highly interesting light on the primitive mind (cf. p. 121ff). He ascribed his luck in hunting (he would get the most game even if twenty men were with him, he assured us) to his personal acquaintance with the Spirit of the Land or rather to the hunting song she had taught him. This song, he said, was the same as the one the Sister of the Alders used to make her relatives come to life again (p. 173). He sang it for us in a very low tone of voice and would not let us hear the words, as otherwise it would take away his luck. He would not even let his wife remain in the house while he hummed it. There are many words, he said, and some men get different words, but only lucky

hunters hear the song. The little doll the Spirit of the Land showed to him was also the same doll that appeared in the afore-mentioned myth. Stepan also knew several legends and was very good at phonetics, speaking loudly and distinctly. Most of his knowledge he had from his maternal grandmother and her second husband who lived at Atrhaq.

Paul Eliah Chimovitski or Tyiktlun (Fig. 5) I did not meet myself and accordingly have no personal impression of him. The information we gathered from him was, however, much

Fig. 5. Paul Eliah Chimovitski. (Photo. F. de Laguna).

more limited than that of his brother and Stepan. A few scattered notes were obtained from Mr. Lee Pratt and Mr. H. J. Lutz from information given by Fred Allen, the last of the professed Chugach shamans. Mr. Pratt would not vouch for the accuracy of these statements, but they are correct in reflecting the opinion of the informant. Fred Allen claimed that he could still cure people, but he was afraid to do it, because if some one he was attending should die "government would raise hell."

It hardly needs to be emphasized that the reconstruction of a culture based upon a foundation so slender as the memory of three or four old or elderly persons and a very few surviving traits must of necessity be incomplete and far too often unreliable. Generally speaking there was no way of checking the information obtained, and in case of inconsistencies it was not possible to judge the correctness of the conflicting statements. Only in a few cases some remark of the early travellers or the archeological material from our excavations may serve as a control, but as a rule far too wide a margin of uncertainty is left. On the other hand the general impression of the picture is that of a culture so closely akin to the better known Kodiak pattern that there is no reason for questioning the correctness of the main lines, even though some details may be wrong or misunderstood, and many others omitted owing to lack of information.

THE CHUGACH COUNTRY AND ITS INHABITANTS

The Position of Prince William Sound within the Eskimo Area.

Roughly speaking, the Chugach territory is identical with Prince William Sound, which is situated between long. 145°37′ and 148°43′ west, and between lat. 59°46′ and 61°16′ north, or nearly on the same latitude as Cape Farewell in Greenland. It is the easternmost region inhabited by Eskimo on the southern coast of Alaska.

At the first glance of the towering heights rising towards the sky, clad with sinister spruce woods at their feet and covered with snow on the top, a traveller approaching the country from the sea may find it very similar to the scenery with which he is already familiar from the fjords of southeastern Alaska, and he may justly ask why then the difference in population is so great. The natural resources seem much more to invite to a way of living like that of the Tlingit than to form the background for a culture like that of the Eskimo, of which the most typical pattern is adapted to an extreme arctic environment. Even in the southernmost parts of Greenland nature has a far more arctic and inhospitable stamp than here.

The answer should probably be looked for in the topography of the country. There are three routes along which an immigration to Prince William Sound may have taken place: from the north, from the east, and from the west. The possibilities of access from the north are only small, however, for the Chugach Mountains are nearly impassable except for an extremely difficult defile leading to Valdez. So completely do the mountains bar the Sound from the hinterland that only a narrow passage through the Copper River valley is left, and this route must have been still more difficult in former times when the Childs and Miles glaciers apparently met midstream.

The possibilities for an immigration from the east are somewhat better, but far from being brilliant. Between Prince William Sound and the widely ramified fjord coast of southeastern Alaska there is a long, open and unprotected stretch, jammed in, as it were, between the windswept ocean and the enormous ice sheets of the Malaspina and Bering glaciers. The Eyak Indians, at present but a vanishing survival of a formerly greater tribe, are now restricted to the Copper River delta, but in early times they probably extended farther east, and their culture is mainly an old-fashioned Northwest Coast culture[1]. While both facts go to show that intercourse between Prince William Sound and the regions to the east was not impossible, the poor and old-fashioned stamp of the Eyak culture as compared to that of the Tlingit testifies that connections between these tribes were nevertheless feeble.

Conditions are far more easy to the west. Across the foot of the Kenai Peninsula there is a portage from Passage Canal to Turnagain Arm, the northeastern ramification of Cook

[1] Birket-Smith & de Laguna 1938, 530 f.

Inlet. At present the shores of Cook Inlet are inhabited by the Tanaina, a tribe belonging to the Athapaskan stock, and it is certain that their immigration dates back to the time before the Russian colonization. While positive archeological evidence of a previous Eskimo population has so far only been found at Kachemak Bay, Kustatan, and Tuxedni Bay, there is nevertheless no reason to doubt that the Eskimo once occupied the whole Inlet[1]. Cook Inlet is easily accessible across Iliamna Lake from Bristol Bay; thus the connection with the great, continuous Eskimo area is established, and it becomes obvious why the Eskimo took possession of Prince William Sound, in spite of natural conditions alien to them.

Nowadays the Chugach have no tradition about their immigration to their present habitat, and how long they have lived there is a question we shall not discuss here. Unfortunately we were not able to discover archeological evidence of any settlement comparable in age to the early periods at Kachemak Bay, since most traces of such occupation had evidently been washed away by the sea, but there are reasons for believing that the Eskimo have lived here for a very considerable time (cf. p. 232f). In this context it might be asked whether the Eskimo were the first inhabitants of Prince William Sound. *A priori* it may be said, perhaps, that this is not very probable, for South Alaska, situated, as it were, just behind the threshold of America's gateway to the Old World, does not necessarily claim a highly specialised culture as for instance the arctic coast, but on the contrary it offers conditions so favourable to a primitive population of hunters and fishermen as very few other regions on the globe. It is a highly interesting fact, therefore, that stone points of Yuma type have been found at Chinitna Bay, Cook Inlet, together with mammoth bones[2]. The whole question about the first immigration to the North Pacific Coast is hardly ripe for discussion yet, however.

Discovery and Ethnological Exploration.

The first European vessel in the waters near Prince William Sound was the Святой Петръ, Vitus Bering in command, which on July 20th, 1741, anchored off Kayak Island. G. W. Steller, the German naturalist of the expedition, had an opportunity of making a short excursion ashore, where he saw traces of occupation, but none of the inhabitants of the island. He found "an old piece of a log hollowed out in the shape of a trough, in which, a couple of hours before, the savages, for lack of pots and vessels, had cooked their meat by means of red-hot stones," and close by there were bones, probably of mountain goat, although Steller interpreted them as caribou bones, pieces of dried fish, mussels, "sweet grass" (сладкая трава, *i. e. Heracleum lanatum*) and a fire drill; the chopped-down trees seemed to have been cut with stone adzes, and at some distance Steller discovered a subterranean cache, or perhaps a dwelling, containing several bark vessels with smoked salmon, ropes made of kelp (*Nereocystis priapus*), some long arrows, etc.[3]. On an island close by (Wingham Island), Khitrov, the "fleet master", found a house built of planks with a fire place in one corner and various implements, *i. a.* a wooden bucket with bent rim[4]. Most of the items may be both Eskimo and Eyak, but the bucket is typically Eskimo[5],

[1] de Laguna 1934, 148.
[2] Hibben 1942–43, 257 f.
[3] Golder 1922–25, II 44 ff.
[4] Golder 1922–25, I 99, II 52 ff.
[5] Birket-Smith & de Laguna 1938, 347 ff.

and it will be shown later that Kayak Island and the adjacent region belonged to the hunting grounds of the Chugach.

Not till many years later was Prince William Sound discovered. On May 12th, 1778, James Cook, the greatest navigator of the 18th century, entered the bay, which was first called Sandwich Sound but already before the printing of the official report acquired its present name. Here the ships remained for eight days, occupied with investigations and surveying. During his stay Cook met with two large skin boats of the same kind as the Greenland umiaqs. He also gives a description of the peculiar two-men kayaks of these parts. The population had evidently been in indirect contact with civilization, for both iron and glass beads were found in their possession. Cook's remarks on these Eskimo are neither numerous nor very deep-going[1] but nevertheless of great importance, because they cover the greater part of what was known of the inhabitants of the Sound until our expedition. Beside the official report there also appeared some other narratives of Cook's voyage. The assistant surgeon of the *Resolution* and the *Discovery*, W. Ellis, published a description including some observations on the Chugach. They are even more scanty than those of Cook, but whereas the latter discussed the possibility of the iron implements found in the Sound being obtained from the Hudson's Bay Company, Ellis was quite aware that they must originate from the Russians[2]. The short account of Heinrich Zimmermann, a German sailor on board the *Discovery*, has no ethnological value in this context, as his remarks on the "Americans" deal with the whole population between Nootka Sound and Bering Strait without distinguishing between the different tribes[3].

Immediately after Cook's voyage there began a veritable race to these regions, in which Russians, Britishers, and Spaniards took part. As early as in the 1770's Spain had organized several expeditions to the northern Pacific, and in 1779, the year after Cook's visit, Ignacio Arteaga and Juan de la Bodega y Cuadra arrived at Prince William Sound[4]. In the following years the American war of independence prevented the viceroys of Mexico from continuing the Spanish expeditions, but as soon as possible they were resumed: Esteban Martinez and Gonzalo de Haro in 1788, Salvador Fidalgo in 1790, and Alejandro Malaspina in 1791. Apart from the latter voyage only very fragmentary accounts of these expeditions have been published, and none of them have anything of ethnological interest concerning the Eskimo[5]. However, several contemporary reports are available in manuscript, and there can be no doubt that it would be of considerable interest if they were published[6].

Very soon the Russians appeared in Prince William Sound too. In 1783 Potan Zaikov arrived from Kodiak with three vessels in order to trade with the Eskimo but shortly after had to retire, because the population would not submit to the same treatment as the peaceful Aleut[7]. At this time the mouth of the Copper River was discovered. For some years, however, the Russians had to suffer a hard competition by the British. As soon as the rumours of the valuable sea-otter skins spread to wider circles, a great number of trading enterprises was established not only in England but even in India. The sea-otter skins found a rapid sale in the Far East, where Canton became the principal emporium[8]. Among the visitors to Prince William Sound were Lowrie and Guise in 1786, Meares, who wintered there 1786–87, Portlock and Dixon 1789, Douglas and Hutchins

[1] Cook & King 1785, II 355, 357 f., 367 ff., 379.
[2] Ellis 1782, I 236 f., 239 ff., 245, 248.
[3] Zimmermann 1781, 59 ff.
[4] Humboldt 1811, 472.
[5] Humboldt 1811, 473 f, 482 ff. Malaspina 1849, 294 ff.
[6] Cf. Bancroft 1890, 217 note 43, 270 note 32, 274 note 41.
[7] Bancroft 1890, 186 ff.
[8] Cf. Dixon 1789, 147. Bancroft 1890, 242 f.

1788, and Moore 1792. Some of the British ship's masters deserve considerable merit for their share in the exploration of the country. Meares, Portlock, and Dixon have published valuable accounts of their journeys, including some scattered remarks on the Eskimo, and a report of Douglas's voyage is given in an appendix to Meares's book[1].

The scientific activity of Great Britain was taken up by Vancouver. In the early summer of 1794 he visited Prince William Sound, where he remained one month and explored the coasts by boats. He saw very few of the inhabitants, however, and the ethnological observations from this part of his voyage are nearly nil.

Nevertheless the Russians gained the victory in the progress of time, because they had a firm backing in their settlements on the Aleutians and on Kodiak. In 1785 Grigori Ivanovich Shelekhov, the founder of the first Russian establishment on Kodiak, sent a party of *promyshlenniki*, Aleut, and Kodiak Eskimo on a cruise to Prince William Sound[2]. In 1788 a Russian galliot, the Трехъ Святители, under the command of G. G. Ismailov and Bocharov, undertook another trading expedition to the Sound, which was named Губа чугацкая, and two years later it was visited by Billings during the great Russian expedition described by Sauer and Sarychev. Even though the most important ethnological observations of this expedition come from the Asiatic side of Bering Strait, they include some details concerning the Chugach. In 1792 a veritable battle took place between the natives and the Russians at Port Etches (Nuchek) on Hinchinbrook Island[3], and the following year the first settlement was founded there. Vancouver visited the place and found the Russians at a frugal meal consisting of seal meat, blubber, and sea-birds' eggs. Their 70-ton galliot had been hauled ashore and formed one side of a stockade. Guns were placed on the deck, and they kept watch day and night. There were about one hundred Russians who made regular boat excursions in order to buy furs. This settlement, the Константиновски редутъ of the Russians, afterwards became an important trading centre frequented both by the Eskimo and the northern Tlingit as well as by the Indians of the Copper River.

Although the Eskimo were more or less independent as late as 1860[4], their attitude towards the European ships' crews was as a rule peaceful and friendly, but most travellers complain of their inclination for theft[5]. They tried, for instance, to steal one of Cook's boats and rob one of the ships[6]. Sarychev tells us that an Eskimo, while talking to a soldier, suddenly snatched the shako from his head, and another one tried to get away with the tailor's scissors[7]. On the other hand the behaviour of the Europeans was often reckless. Whereas the Eskimo praised Zaikov, they complained of one Polutov, a mate, who had stolen their sea-otter skins, shot several people, and carried off some women. The consequence was that Polutov and his companions were killed one dark autumn night, when they had gone ashore to chop wood, whereas Zaikov was spared[8].

Makari, our chief informant, still remembered the traditions about the first arrival of the Russians. They landed on Green Island and were observed there by some hunters from Nuchek, who returned to their village and told of the strange beings they had seen: smoke was coming out from their mouths, they had shining suckers all the way down their bodies like cuttlefish (the buttons), their heads were bandaged (caps), and their legs

[1] On Lowrie and Guise, Hutchins, and Moore cf. Bancroft 1890, 260, 267, 325 f.
[2] Bancroft 1890, 227 f.
[3] Bancroft 1890, 326 f.
[4] Golowin 1863, 54.
[5] Cook & King 1785, II 358. Portlock 1789, 249. Dixon 1789, 161 f. Sauer 1802, 191.
[6] Cook & King 1785, II 359.
[7] Sarytschew 1805–06, II 45.
[8] Sauer 1802, 191.

ended in hoofs (boots). When the Russians fired their guns, the Eskimo believed that the earth was bursting. They thought that flour was ashes and snuff was the charred dust from a fire drill; hard tack was supposed to be dried salmon roe. Fred Allen gave a very similar account and added that most of the supplies which the Chugach got in exchange for their furs were thrown away at first, as they did not know how to use them. They would look at the sea biscuits, for instance, and say: "Chips of wood—pooh" and then throw them away.

Soon the lawless conditions in the Russian colonies became so revolting that the necessity of a change was evident. By an Imperial ordinance 1799 all authority and trade on the coasts of America was transferred to the Russo-American Company. The soul of this enterprise was a former trader, Aleksandr Andreevich Baranov. Severe and uncompromising to himself and others alike, he succeeded in graually extending the dominion of the Company towards the southeast, subdued the furious resistance of the Tlingit, and moved the headquarters of the Company to Sitka. When after thirty years of iron rule he died, the government of the Company passed over to naval officers, who in some cases were highly educated and scientifically interested men—as for instance rear-admiral, baron F. P. von Wrangell—but on the other hand hardly able to take over the heritage of their energetic predecessor. In reality it was a natural consequence of the historical development, when after the Crimean War Russia sold the American possessions to the United States. In the Russian period Prince William Sound belonged to the so-called Kodiak District which comprised the coast from Cape St. Elias to the Kuskokwim, but the only trading post in the Sound was the afore-mentioned Konstantinov redoute or Nuchek[1].

Among the Eskimo the government of the Tsar has not left a good reputation. There can be no doubt that even if conditions improved considerably during the rule of the Company, the *knut* was still used liberally, and the manner in which the natives were forced to pursue the sea-otter hunt in the service of their white masters was considered—and in fact scarcely differed much from—a kind of slavery. According to the privileges of the Company each male person was obliged to serve it between his 18th and his 50th year, each person, however, not more than three years. The men were mostly employed in hunting and received a payment for every skin according to a set price[2]. Fred Allen gave the following account of the daily routine during the Russian colonization: They made the Chugach dry fish for them and do other work. Every morning a bell would ring, and all men and women had to go to work. If a person did not come, he or she was sent for and soundly whipped. At noon they had a mixture of codfish, seal oil, and flour cooked up together. For their work they received the equivalent of 5 cents a day (this means nothing, of course, as long as the buying value of the money is not known). After the Russians established themselves at Nuchek, there was a garrison at Zaikoff Bay, just behind the long gravel spit, and a penal colony in Stockdale Harbor. At Nuchek there was a large, underground garrison (*sic*!).

The contributions of the 19th century to Chugach ethnology are extremely few. Belcher visited Prince William Sound in 1837 on his voyage round the world, but except for describing the inhabitants of Nuchek as "filthier than any Esquimaux"[3] he has nothing about the population. A few particulars may be found in von Wrangell's book, but at

[1] Wrangell 1839, 5.
[2] Wrangell 1839, 28.
[3] Belcher 1843, I 73.

that time the Chugach were already strongly influenced by the Russians[1]. From the latter part of the century we have the short and rather scattered remarks of Dall, Petroff, and Jacobsen[2]. No detailed study of the Chugach had been made, however, till our expedition in 1933 tried to make good the omissions of former times as far as possible—and then it was often too late, as will only too plainly appear from this work.

Ethnographical collections from the Chugach are very few and incomplete, the best to my knowledge being that of the *Museum für Völkerkunde* in Berlin. As mentioned previously there are also some masks in the U. S. National Museum. There can be no doubt that a considerable number of Chugach specimens are in the museums of Leningrad and Moscow, but in many cases it seems to be impossible to identify them, since exact information of their origin is often lacking[3].

Geographical Characteristics of Prince William Sound.

A detailed geographical description of Prince William Sound lies outside the scope of this work, but it is necessary to give a summary of the most important geographical features which form the background of the life of the Eskimo in this area.

It needs not to be emphasized, of course, that Prince William Sound is not a sound in the proper sense of the word, but really a vast gulf, which is nearly barred from the Pacific Ocean in the south by a series of mountainous islands, the largest of which are Montague, Hinchinbrook, and Hawkins Islands (Fig. 6). To the west, north, and east the gulf is encircled by the Chugach Mountains, which form a snow-glittering and nearly impassable wall. Here the coast of the mainland is strongly ramified and partly dissolved into numerous islands and peninsulas, separated by narrow sounds and fjords. Indeed, the whole region must be understood as a highly eroded part of the Chugach Mountains into which the sea has come, and in many places there is distinct evidence of a recent sinking of the shore line[4].

The Chugach Mountains belong to the St. Elias chain and continue through the Kenai Peninsula to Afognak and Kodiak The predominant rocks are strongly folded and partly metamorphic slates and graywacke of unknown age. The so-called Valdez series in the northern and western part of the Sound is supposed to be paleozoic, while the Orca series, which is separated from the Valdez strata by an unconformity, is found in the southern and eastern parts and is probably of mesozoic (jurassic?) age. In many places intrusive greenstones and granite dykes occur. Slate and greenstone were the most important raw materials for the stone implements of the Eskimo and were worked by them for instance on Montague, Hinchinbrook, and Fleming Islands. Native copper is also found and was utilised in Port Etches at the place now known as Garden Cove, but called by the Eskimo Kanualik, *i. e.* "copper place". When the copper mine on Latouche Island was established, Eskimo mining tools of stone are reported to have been found, according to the description probably heads of mauls and splitting adzes. Chalcopyrite, which nowadays is the most important copper ore in the Sound, was of course unfit for native use.

[1] Wrangell 1839, 116 f.
[2] Dall 1877. Petroff 1884. Woldt 1884.
[3] Cf. Volkov & Rudenko 1910.
[4] The description of the geology and morphology of Prince William Sound is based upon Grant & Higgins 1910 with supplementary field notes of Dr. de Laguna and the author. Cf. also Brooks 1906 and de Laguna, Archeological Report.

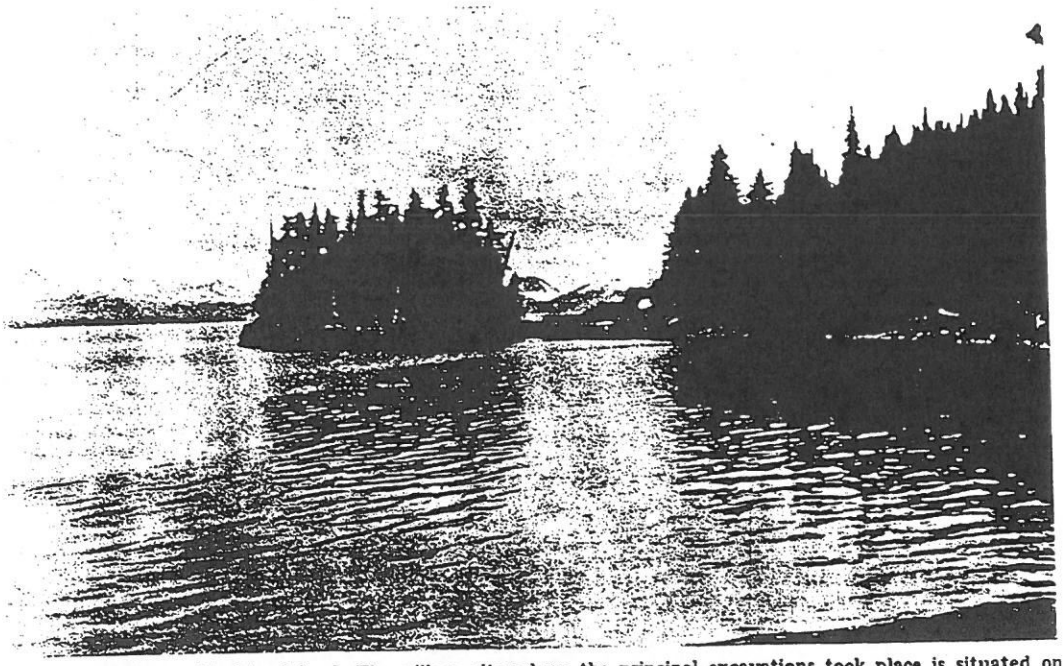


Fig. 6. Palugvik on Hawkins Island. The village site where the principal excavations took place is situated on the low isthmus between the small promontory and the main island. (Photo. F. de Laguna).

The altitudes near Prince William Sound are considerable. Close to the coast the mountains often rise to heights of 1000 m, and only a short distance inland they are more than three times as much. The present topography of the land is best explained as being part of an elevated and tilted peneplain which before the Ice Age was eroded to maturity and afterwards strongly influenced by the pleistocene glaciation. The lower, rolling mountains are cut by U-shaped valleys and fjords with depths of more than 800 m, whereas the alpine tops are characterized by broad cirques, fretted comb-ridges, and pointed tinds. In some places, for instance along the west coast of Montague Island, the western tip of Hinchinbrook Island, and the country around Tatitlik, Sheep Point, there is a typical strand flat, which must, at least, be older than the last glaciation (Fig. 7). It forms a completely flat rim at the foot of the steep heights behind. Alluvial plains occur for instance at Valdez and Cordova, but are only of small extent. Great masses of mud and silt are, however, carried by the Copper River and are deposited in the eastern part of the Sound, so that the steamers bound for Cordova are obliged to enter it between Montague and Hinchinbrook Islands and call at the town from the north. As Elliott has it: "The body of Prince William Sound is so forbidding in its dark grandeur that even the stolid Russians never tired of narrating its stirring impression upon their senses"[1]. At a distance this gloomy scenery recalls the wildest regions of Greenland, but at closer range the similarity disappears. This fact is not due to the forest alone which everywhere climbs the mountain sides, but also to the character of the rocks, for in many places the disintegration has

[1] Elliott 1886, 78.

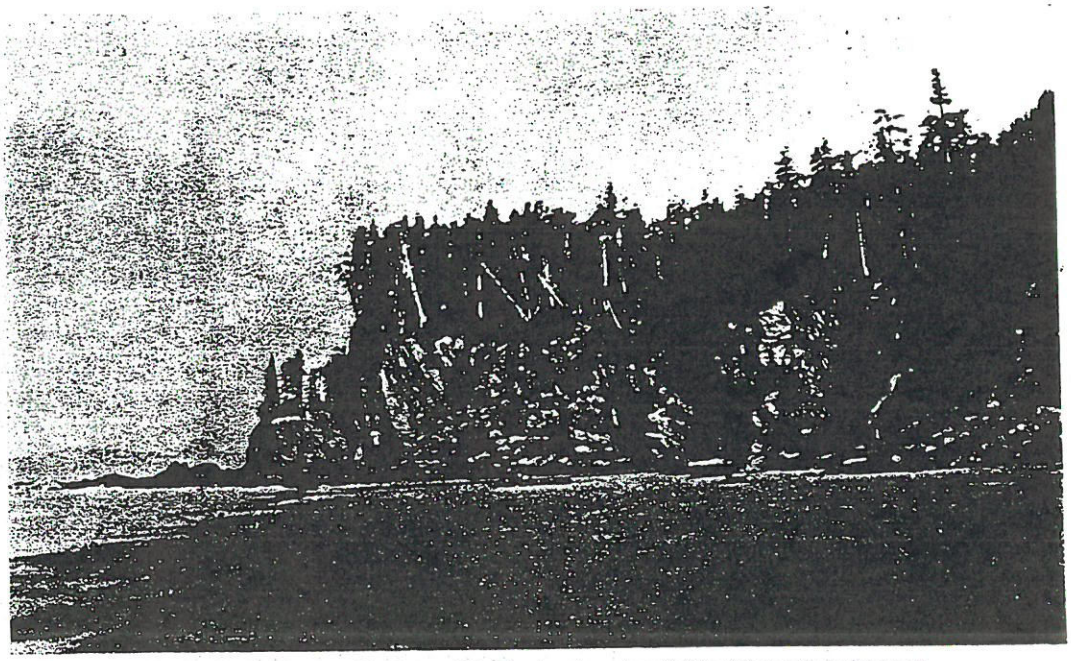


Fig. 7. Cape Clear on Montague Island, showing strand flat. (Photo. F. de Laguna).

created rugged and fantastic forms which are entirely absent in the majestic monotony of the Greenland landscape.

It is easily understood that the importance of the Ice Age in shaping the morphology of land can hardly be overrated, and also at the present day nevées and glaciers cover considerable areas in the western and northern parts of the Sound around College and Harriman Fjords, where the glaciers in many cases reach the sea level. Largest of all is, however, the famous Columbia Glacier, which is 4.5 km broad and for more than half of its width forms a nearly vertical wall, 120 m high. Here, as in several other places, small icebergs are constantly formed when the glaciers "calve" with crashes like distant thunder, but none of them attain even approximately the size of the Greenland icebergs.

It is likely that the Eskimo are right when they tell that the glaciers in a not very distant past were much larger and the glaciation greater than in our time[1]. It has often been observed that the glaciers in Alaska and on both sides of the North Atlantic have receded considerably since the end of the 19th century. In 1932 it was established that six large and seven small glaciers in Prince William Sound had shrunk, two large and one small glacier had advanced, but seemed to be stationary when the paper was written, and only two large glaciers were still advancing[2].

Two facts decide climate of Prince William Sound. For one thing the coasts are nearly barred from the influence of the interior on account of the mountains; in the second place it is exposed to the ocean, which is here affected by the Kuro Shio, or warm Japanese current. We have, therefore, a northern temperate climate of insular type. A map of the

[1] For details, cf. the archeological report of Dr. de Laguna.

[2] Field 1932.

isanomal lines will show that the temperature in January is about 10° C. too warm according to the latitude, whereas July is about 2° too cold. Thus there is a considerable surplus of heat for the year as a whole. As an example the monthly mean temperatures of Cordova are cited below[1]. For comparison the corresponding values are also given for Nanortalik on the same latitude in Greenland, so that the difference in climate will plainly appear.

	Cordova	*Nanortalik*
January	—3.2	—5.1
February	—0.6	—5.0
March	0.2	—3.1
April	2.8	—0.8
May	7.1	2.9
June	10.4	5.0
July	12.5	5.9
August	12.1	5.9
September	9.4	4.2
October	4.9	1.5
November	0.3	—1.6
December	—1.9	—3.6

In Cordova there is a mean minimum in January of —8.2°, and in July a mean maximum of 15.2°. In Valdez, which is situated farther away from the ocean, the mean temperature varies from —8° in January to 12° in July. As a general rule it may be stated that June, July, and August are practically speaking free of frost in the Sound, and a permanent ice floe is unknown in the winter except on lakes and in sheltered bays and fjords. It is needless to say that these facts greatly affect the culture, which is so closely attached to the sea and its resources.

The prevailing winds depend more or less on the permanent barometric minimum of the North Pacific. The minimum is strongly developed in the winter, weaker in the summer, when the subtropical maximum has moved as far north as lat. 40°. Like the corresponding minimum in the North Atlantic between Iceland and Greenland it is a breeding place of the cyclonic storms of the winter. In seven months of the year, southeasterly winds prevail in Prince William Sound, but in January and March they are as a rule displaced by northeastern, and in April, June, and July by southwesterly winds.

As may be expected, the precipitation is very great, nearly 330 cm annually, the maximum being in September, but also here there is a difference between Cordova and Valdez, the latter place getting only half the amount of the first mentioned. A considerable part of the precipitation is snow, and generally snow may occur at sea level from October to the end of April. As far as precipitation is concerned, Prince William Sound occupies an intermediate position between the rainy coast of southeastern Alaska and the more arid regions to the west, although in this respect as also in vegetation it seems to be more closely related to the eastern parts. The great amount of precipitation, combined with the slight heat in the summer, will explain the strongly developed glaciation. Everything taken into consideration, rain, wind, fog, and raw weather are the prevalent features of the climate; as a type it finds its closest parallel in northern Norway. This relatively mild and insular climate affects both the vegetation and the fauna and thereby also the conditions of Eskimo life, impressing it with a distinct subarctic stamp.

[1] Climatological facts cited from *Summary of the Climat. Data of Alaska*. Temperatures and precipitation are there stated in Fahrenheit and inches, but are here given in centigrades and centimetres.

Thus it means one great advantage to the Chugach as compared with most other Eskimo tribes: wood is easily accessible. It is true that Prince William Sound is not far from the northern timber line, and all mountain tops are bare of trees even if they do not exceed 1000 m; but it is the forest that gives the country its characteristic appearance and is also most important from the view-point of human geography. It is a continuation of the coast forests of southeastern Alaska. The predominating trees are hemlock (*Tsuga mertensiana*) and Sitka spruce (*Picea sitchensis*). Yellow cedar (*Chamaecyparis nootkatensis*) does occur, but not to the same extent. The trees attain so considerable a size that the Russians as early as in 1794 established a shipyard at Resurrection Bay and by the close of that year launched a three-masted, full-rigged ship of 180 tons burden[1]. Along the beaches there are often narrow strips of alder (*Alnus sitchensis*), willows (*Salix sp.*), and cottonwood (*Populus trichocarpa*), the lighter colour of which stands out sharply against the sinister background of the conifers. The forest is nearly impenetrable. The mountains rise with steep slopes, and everywhere the road is barred with great rocks and trees upset by the wind, while in other places the feet sink deep into moss and swamps, where the evil-smelling skunk cabbage (*Lysichiton camtschatense*) grows in abundance. In the undergrowth huckleberries (*Vaccinium ovalifolium*) cover great areas.

Sites of ancient occupation and similar places are often overgrown with dense thickets, where bushes such as salmonberry (*Rubus spectabilis*), cloudberry (*R. chamaemorus*) and some species of *Ribes* (*R. hudsonianum, R. glandulosum, R. bracteosum*) vie with cow-parsnip (*Heracleum lanatum*), nettles (*Urtica dioeca*), devilclub (*Oplopanax horridus*) and other perennial plants. Here numerous flowers are also found in full blow in the summer time: blue stork's bill and pink columbine, fragrant meadow-sweet, yellow cinque-foil and snapdragons, and a little later in the season a blazing sea of tall fire-weeds. Near the coast and along the streams scattered elders (*Sambucus racemosa*) and high-bush cranberries (*Viburnum pauciflorum*) occur. In some places, for instance on the east end of Hinchinbrook Island, there are regular dunes with rye-grass (*Elymus mollis*) and an abundance of wild strawberries (*Fragaria chiloënsis*), and often the beaches are covered with sandwort (*Arenaria peploides*), beach pea (*Lathyrus maritimus*) and other littoral plants.

At present the whole region around the Sound is a Forest Reserve where the felling of trees is only allowed with certain restrictions.

In Prince William Sound we meet a rich fauna of animals belonging to the boreal forest zone and the subarctic seas. The most important game among the land mammals proper is without any doubt the mountain goat (*Oreamnus montanus*), which keeps to the highest parts of the Chugach Mountains. Moose (*Alces americanus*) occur on the Kenai Peninsula, whereas the caribou is not seen until far inland on the other side of the mountains, as it cannot stand the damp climate near the coast. Caribou skins and antler were obtained by the Chugach from the Ahtena or the Port Graham Eskimo. Some years ago the United States government introduced a species of deer (*Odocoileus columbianus*) from southeastern Alaska; it has been protected so far and has, of course, never played any part in Eskimo economy. Both the black bear (*Euarctos americanus*) and the Kodiak brown bear (*Ursus gyas*) are very common, and the latter is highly respected by everybody, natives and whites alike, on account of its enormous size and its ferocity. There is no reason for mentioning other land mammals than a species of ground squirrel (*Citellus plesius*) and the woodchuk or hairy marmot (*Marmota caligata*), of which the meat is

[1] Elliott 1886, 79.

eaten and the skin used for clothing, as well as numerous fur bearers, different varieties of fox (*Canis alascensis*), for instance silver and cross fox, wolf (*Canis lupus*), wolverine (*Gulo luscus*), lynx (*Lynx canadensis*), marten (*Mustela americana*), weasel (*Putorius alascensis*), mink (*Lutreola vison*), land otter (*Lutra canadensis*), beaver (*Castor canadensis*), and musk rat (*Fiber zibethicus*). The porcupine (*Erethizon epixanthum*) was also hunted.

Among land birds proper[1] hardly any than the wood grouse (*Canachites canadensis*) was hunted, as the rock ptarmigan (*Lagopus rupestris*) lives only near and above the timber line. The beautiful Californian humming bird (*Selasphorus rufus*) was occasionally used as an amulet; it is, however, a summer guest and winters in Central America. To these we may add the raven (*Corvus corax*) and the Steller jay (*Cyanocitta stelleri*), because the former is by far the most important of all birds in the mythology, while nobody can escape noticing the latter on account of its plumage of brilliant blue and its unceasing noise. Of course there are also numerous smaller birds such as sparrows, pipits, redpolls, etc., and to anybody ever so little familiar with the boreal forests it is scarcely necessary to say that mosquitoes and gnats are a terrible pest during the summer.

The aquatic fauna forms the foundation of Eskimo life. Finwhales, especially no doubt the small finner (*Balaenoptera rostrata*) and the humpback (*Megaptera boops*), were much hunted in former times. Besides there are some species of toothed whales such as porpoise (*Phocaena communis*), white whale (*Delphinapterus leucas*), blackfish or cawing whale (*Globicephalus melas*), and the much feared killerwhale (*Orca gladiator*). The narwhal is unknown here, but it is not unlikely that both the Californian gray whale (*Rhachianectes glaucus*) and stray specimens of the sperm whale (*Physeter catodon*) and right whale (*Balaena mysticetus*) may occur from time to time. Spotted seals (*Phoca vitulina*, sometimes described as a separate Pacific species, *Ph. richardii*) are common, but less characteristic for this area than the fur seal (*Callorhinus ursinus*) and the sea lion (*Eumetopias jubatus*). Sometimes, though rarely, there occurs a seal which from the description I believe to be the ribbon seal (*Histriophoca equestris*). The Eskimo mentioned still another species of seal looking like a spotted seal, but quite black; probably it is but a melanid variety of the latter. The Pacific walrus (*Odobenus divergens*), while not entirely unknown, is nevertheless a very rare visitor in these waters. The sea otter (*Enhydra lutris*) was common formerly, but after the arrival of the Russians it was hunted so recklessly that its numbers decreased at a furious rate; it is now strictly protected, and the stock is again increasing.

At some places in Prince William Sound there are bird cliffs with great flocks of cormorants (*Phalacrocorax pelagicus*) and kittiwakes (*Rissa tridactyla*). Sea gulls, in particular *Larus glaucescens*, are also seen daily, and in the shell heap of Palugvik bones of the albatross (*Diomedea sp.*) were found. Nearly everywhere one meets the pigeon guillemot (*Cepphus columba*), which here takes the place of the black guillemot of the North Atlantic. Oyster catchers (*Haemotopus bachmani*), tufted puffins (*Lunda cirrhata*), sea parrots (*Fratercula corniculata*) and several sandpipers (*Actitis macularia*, etc.) likewise belong to the more or less common birds along the coasts. Frequently one hears the red-throated loon (*Gavia stellata*), and often the baldheaded eagle (*Haliaëtus leucocephalus*) is seen hovering over the sea in large circles. Other birds are the sandhill crane (*Grus canadensis*), brent goose (*Branta canadensis*), and numerous ducks (*Mergus americanus*, *Oidemia perspicillata*, *Dafila acuta*, *Pagonetta glacialis*, *Mareca penelope*, etc.) which during their autumn migration make the Copper River delta a veritable Eldorado for hunters.

[1] Concerning the avifauna of Prince William Sound cf. Grinnell 1910.

By far the most important fish from an economic point of view are the different species of salmon that ascend the rivers during the summer in order to spawn. The largest species is the king salmon (*Oncorrhyncus chouicha*) that appears as early as in the beginning of May and stays until the middle of June. The red salmon (*O. nerka*) arrives a little later, and when it disappears in the beginning of July, the time has come for the humpback salmon (*O. gorbuscha*) and dog salmon (*O. keta*), which are followed by the silver salmon (*O. kisutch*) in the beginning of August. From the middle of September the salmon season is over. Other economically important fish are the halibut (*Hippoglossus vulgaris*), cod (*Gadus macrocephalus*), herring (*Clupea pallassi*), olachen (*Thaleichthys pacificus*), and apparently even a species of dogfish (*Squalus acanthias*). Also a kind of edible octopus occurs.

Between the islands in the eastern part of the Sound there are extensive mud flats and shoals which have been formed by the deposits of the Copper River and are more or less dry by ebb-tide. Here, and on the rocks and boulders of the beach, there is a rich fauna of invertebrates: barnacles, mussels, limpets, whelks and other snails, chitons, worms, sea-anemones, etc. When hunting failed, these flats were resorted to as a nearly always full larder, and as a rule the population did not suffer from such hunger catastrophes as the Eskimo in the Arctic. If we may judge from the contents of the shell heaps, certain clams (*Saxidomus nuttalli, S. giganteus, Paphia staminea*), mussels (*Mytilus edulis*) and cockles (*Cardium corbis*) together with some snails (*Thais lamellosa, Littorina sitchana, Acmaea cassis*) were generally appreciated, as were also chitons and sea urchins. Thus also the economic resources characterize Prince William Sound as a connecting link between the Eskimo area proper and the North Pacific coast.

Territory and Tribes.

As formerly mentioned the habitat of the Chugach comprises Prince William Sound and adjacent islands. Holmberg says that they "*bewohnen die grössten Inseln der* Bai Tschugatsk (*Prince-William's-Sound der englischen Karten*) *wie* Zukli [Montague Island], Chtagaluk [Hinchinbrook Island] *u. a. und ziehen sich an der Südküste der Halbinsel Kenai nach Westen bis zur Einfahrt in den Kenaischen Meerbusen* [Cook Inlet]"[1]. Also von Wrangell mentions the mouth of Cook Inlet as the western boundary of their territory[2]. In our days there are Eskimo at Port Graham and Koyuktolik or Dogfish Bay; "they appear to be related more closely to the Chugach of Prince William Sound than to the Kodiak Islanders", and their dialect seems to be "more like that of the Prince William Sound Eskimo than that of the Kodiak Eskimo"[3].

Whereas there is no difficulty in establishing the western boundary of the Chugach territory, its eastern limits have long been uncertain owing to the doubt concerning the identity and distribution of the Eyak. The problem has been discussed by Dr. de Laguna and the present author with the following results:[4] The coast east of Cordova Bay, just inside the eastern edge of Prince William Sound, to Martin River, including the Copper River valley as far up as Childs and Miles Glaciers, belonged to the Eyak, an Indian tribe of the Na-Dene stock and distantly related to the Athapaskans, Tlingit, and Haida but formerly erroneously considered an Eskimo tribe ("Ugalakmiut"). In later times when

[1] Holmberg 1855, 284.
[2] Wrangell 1839, 116. Cf. Krause 1885, 328.
[3] de Laguna 1934, 14.
[4] Birket-Smith & de Laguna 1938, 17 f, 341 ff.

the Russians had enforced peace between the Eyak and Eskimo, the former extended their hunting excursions in Prince William Sound to Port Gravina and even as far as Ellamar, and sometimes they hunted sea otter off the Egg Islands and the east end of Hinchinbrook Island, although they realized that this was trespassing on Eskimo territory. Occasionally they walked over to Hinchinbrook Island on the ice, landing at Dan's Bay. Kayak Island they did not claim. Kayak, Wingham and Middleton Islands as well as Controller Bay belonged to the Chugach and were inhabited by a separate group within the easternmost tribe of Prince William Sound. In historic times the inducements and pressure of the Russians concentrated the Eskimo population about Nuchek at Port Etches on Hinchinbrook Island, and the agressive Tlingit took over the outlying territory of Controller Bay. They even occupied the village of Taukhtyuik on Hawkins Island in 1805, but soon had to leave it again. We do not know whether the original Eskimo inhabitants of the eastern region were absorbed by the advancing Tlingit or whether, as some Eskimo legends suggest, they were killed and driven out by the Indians.

If Makari was asked about his nationality he would answer that he was a ʃuacıq, *plur.* ʃuacɹt, a name referring to all Eskimo of Prince William Sound but not including those of Seward, Nuka Bay, and farther to the west. The region around the Sound is ʃuacɹt-nun·ɹt, the country of the ʃuacɹt. The Chugach also call themselves ʃuk°t, or ʃu·t *plur.* of ʃuk, "a human being". Perhaps it is this name which in European and American literature has been corrupted to Chugach. Fred Allen believed that the latter word had something to do with "sprouting up", an etymological explanation which is hardly feasible, but nevertheless of some interest because it may suggest the well-known Eskimo idea that people originated from earth hummocks. The natives never employ the name Chugach themselves. As far as is known it occurs for the first time in Zaikov's report; after mentioning the Kodiak Eskimo he continues: "*Darauf fängt ein andres Geschlecht von Insulanern an, welche* Schugatschi *heissen, und zuletzt bärtige Leute, welche sehr weit von einander wohnen. Ein jedes dieser Geschlechte spricht eine besondere Sprache, und sie leben gänzlich von einander abgesondert*"[1]. Both von Wrangell and Holmberg use the form "*Tschugatschen*" with German plural[2]. The anglisized form Chugach occurs in Petroff[3]. It is probably Dall who is responsible for the absurd adding of the Eskimo suffix *-miut*, which means "dwellers of" and can therefore only be used together with a place name. In his list of Eskimo tribes in Alaska he describes the natives of Prince William Sound as Chūgăch´ig-mūt[4]. Some years later Petroff writes: "Chugachimute" or "Chughchil-shvit (their tribal name)"[5]. In the ending of the latter word we recognize the plural of ʃuk. It must be regretted that the Bureau of American Ethology has adopted the name Chugachigmiut[6]. Incidentally, the Chugach of the present day prefer to call themselves Aleut, no doubt a survival from the period when it was considered "fashionable" to be Aleut, because they were most Russianized. It has even meant that the local white population now believes that the natives are of Aleut and not of Eskimo descent[7].

[1] Saikof 1782, 284.
[2] Wrangell 1839, 116. Holmberg 1855, 284.
[3] Petroff 1882, 568. In the English edition of Lisianski's voyage (1814, 153) the name is spelled "Choohnshes". This is, of course, nothing but an incorrect transscription of the Russianized word. Since "h" does not occur in the Russian alphabet it is always replaced by "g", and the English translator has therefore erroneously supposed that the middle consonant in the word was a "h".
[4] Dall 1877, 20. Cf. Dall 1870, 401.
[5] Petroff 1884, 145.
[6] Handb. Amer. Ind., I 294.
[7] Thus for instance Lavrischeff, who published two Chugach stories as "Aleut" (Lavrischeff 1928, 121 ff.). An interesting suggestion has been made by Professor L. L. Hammerich in the Copenhagen University, who visited Nunivak for linguistic purposes in 1950. He thinks that the Eskimo prefer the name Aleut because it involves certain economic advantages.

The Chugach call the early inhabitants of the Sound auxkɔrulu·t. They were not, however, a separate people, but spoke the same language and lived in the same way as the present population; in fact, they were the ancestors of the latter, who mixed with the Russians.

As among all other Eskimo, tribes in a political sense were unknown, whereas there were certain geographical groups named after their pricipal village or some other remarkable locality within their territory. It is needless to say that the number of such groups was hardly absolutely fixed, but might change according to local views and custom. Nor were the territories of these "tribes" sharply separated from one another; neither the "tribes" nor the families had definite territories. The following eight groups were mentioned as the most important:

1. Palugvirmiut or Trhatlarmiut, named for the village of Palugvik on Hawkins Island, the main site of our excavations, and Trhatlaq (Mummy Island) respectively. They occupied the northeastern part of Hinchinbrook Island, Hawkins Island, Mummy Island, the head of Cordova Bay and the coast of the mainland as far as Chilkat at Controller Bay, although interrupted by the Eyak in the Copper River delta between Cordova Bay and Martin River. The inhabitants of Controller Bay were called Tyitlqarmiut and probably occupied a rather independent position. It was the Tyitlqarmiut who sometimes visited Kayak Island, where Steller found traces of them. As formerly mentioned, the Tlingit Yakutat took over Controller Bay after the Russians had concentrated the Eskimo population around their trading post at Nuchek. Originally there was no village at Katalla itself.

2. Nutyirmiut, on Hinchinbrook Island from Hawkins Cut-off almost to Hook Point. Their principal village was Nuchek, where the Konstantinov redoute was established. Nuchek was considered the best village site on the Sound, due to its proximity to the sea-otter herds off Montague and Hinchinbrook Islands, its sheltered harbour, and the abundance of salmon and whales in the neighbourhood. No wonder, therefore, that there was almost continuous fighting for its possession.

3. Alukarmiut, in Sheep Bay, named for their single village on the large island, Alukaq. The boundaries towards the Palugvirmiut were not rigid, for the Alukarmiut used to hunt at the head of Cordova Bay. The Alukarmiut were noted for taking particularly long steps, because they were used to jump from rock to rock when they hunted in the creeks at the head of the bay. The neighbouring tribes were afraid of their young men, since they were so swift and such good climbers. The story of the Mountain-Goat Hunt in Sheep Bay (p. 145f) illustrates their skill in hunting.

4. Atyarmiut, in Gravina Bay from Gravina Point to Humphries Hole. They were also called Isharmiut after Isha or Gravina Bay. Their principal village was Atyat, *i. e.* "underneath", on the spit northwest of Humphries Hole. They were so numerous, Makari said, that when they were sitting in the big bath house at Atyat eating codfish, the gutskin panes would flop even in calm weather! Otherwise they often had to be content with the dry meat of mountain goat. It was told that they ate so many goats that their beards were bristling with goat fat. The same joke was told of the Alukarmiut and the Tatitlarmiut. Owing to the poverty of the Atyarmiut they had few wars. War parties from the west side of the Sound used to pass their territory without stopping and continue to Sheep Bay where there was a better chance for booty.

5. Tatitlarmiut, from Porcupine Point to the northwest side of the entrance to Port Valdez. They used to hunt with the Kangirtlurmiut, but would never join those from

Gravina Bay. Their main village was Kunin north of Ellamar, whence at a later period they moved to Ellamar itself or Palutaq. They were called Tatitlarmiut in spite of the fact that Tatitlaq (Tatitlik) is not an old village. Tatitlaq means "windy place", no doubt with reference to the violent Valdez wind.

6. Kangirtlurmiut, in the northwestern part of the Sound. Makari was very uncertain of the villages in this district, but apparently the Kangirtlurmiut had all the country west of the Columbia Glacier as far as Port Wells. The village of Kangirtluq (Kiniklik) was not old, there were not many people living there, and the place was already abandoned in 1930. Both the Kangirtlurmiut and the Tyanirmiut used to hunt around Naked Island, but for mountain goat they went right across the Sound to Sheep Bay, because there the game was nearer to the sea and they did not have to climb so far. They were careful, however, to arrive when the local inhabitants were away fishing salmon in the Copper River, as they were afraid of them.

7. Tyanirmiut, from Port Wells to Montague Strait, including (part of?) Montague Island. Their main village was originally Tyayuluk or Uqshitlinguashaq at Point Helen on Knight Island. Later they moved to Kalukat and still later to Ingim-atya or, as it is called on the maps, Chenega. Ingim-atya, *i. e.* "below the mountain", is, however, the proper name of the village, whereas Tyaniraq (Chenega), meaning "woodless place" or, according to Fred Allen, "across", is a point to the east of it. A saying has it that the Chenega people are darker than those on the east side of the Sound, because they are "soaked in grease", *i. e.* they eat more sea mammals and not as many land animals as the eastern tribes.

8. Shuqlurmiut, on (northern?) Montague Island and the east coast of Knight Island. They used to hunt at Perry Island. Sea lions were common in their waters, and they were usually soiled with sea- lion oil. It was also said that they ate so many chitons that their faces became freckled with the bits of black skin flying up in their faces when the animals were pounded before cooking! They were, however, considered the richest and the most powerful tribe in the Sound and had many slaves—every day the slaves could be seen on the beach sharpening the stone adzes and knives of their masters.

Some of the tribal names mentioned, together with some others, occur in the early reports. Portlock writes: "Toatucktellingnuke gave me to understand that the country he came from was called Cheeneecock [Chenega], and situated in the South West part of the Sound. . . . I found the whole of their party very friendly and well disposed; and indeed most of those who visited us were so; particularly the natives belonging to Tacklaccimute [Trhatlarmiut?], who I am inclined to think inhabit Comptroller's Bay, and the Shucklarmute [Shuqlurmiut] people who take up their abode in the North side of Montague Island"[1]. He continues: "I learned from my late visitors that the country where Sheenawoa and his tribe take up their residence, is called Toaticklagmute [Tatitlarmiut]; that they were the most powerful tribe about the Sound, and hated by all their neighbours, with whom they were continuously at variance"[2]. It is furthermore stated: "Tacklaccimute, Shucklamute, and Wallaamute are the countries that afford the sea-otter. This last mentioned place, from every information I have been able to obtain, is situated considerably beyond Comptroller's Bay to the Eastward; and we have seen none of the inhabitants"[3]. The "Wallaamute" of Portlock are the Eyak and not a Chugach tribe[4].

[1] Portlock 1789, 237.
[2] Portlock 1789, 237 f.
[3] Portlock 1789, 238.
[4] Birket-Smith & de Laguna 1938, 339.

Meares tells of "six canoes of the Chenouways tribe" at Snug Corner Cove[1]. Evidently, Chenouway is not a tribal name but the same person whom Portlock calls Sheenawoa. Meares also mentions "a man of the Tauglekamute tribe"[2]. It is probably identical with Portlock's Tacklaccinute, *i. e.* the Trhatlarmiut. It may be added that Dall calls the inhabitants of Nuchek Nuchig'mut[3].

It is difficult to form a well-founded opinion of the number of the Chugach before the arrival of the Europeans, but we may take it for granted that it was much smaller than that of the Kodiak Eskimo. Meares estimated the whole population to 5–600 persons in all, and both Portlock and Vancouver give similar small numbers[4]. In 1818, when the Kodiak Eskimo numbered 3430 persons according to the Russian church registers, only 360 are reported in Prince William Sound[5]. In 1860 they had increased to 456[6], and in the beginning of the 1880's they were stated to be "less than 500 in all"[7]. The census of 1890 mentions 433 Chugach, but this figure is certainly too high because not only half-breeds but also the Eyak and others are included[8]. It is impossible to give a definite statement of the number of the present-day Chugach, as the official census does not distinguish between the different native tribes. Mr. Nonini, the American teacher at Chenega, was of opinion that there were scarcely more than 200 Eskimo left in Prince William Sound. Of these, 90 lived in Chenega. about 70 in Tatitlik, some in Valdez, and some, mostly half-breeds, in Ellamar.

Dr. de Laguna has discussed the question why the Chugach population was so small compared to that of Kodiak and the Aleutian Islands, but has not been able to find a plausible answer[9]. It is, indeed, a very difficult problem. I can only suggest that in spite of the seemingly abundant resources of the country the environment was not very favourable to the Eskimo culture pattern, which is primarily adapted to entirely different conditions, and that the Chugach thus always remained a marginal offshoot of the great Eskimo stock.

As in Greenland, tuberculosis is the most fateful disease from a social point of view. Otherwise the health situation is not so bad. Among the children in Chenega there were many cases of infection of the eyes (trachoma?) which sometimes caused blindness, but active cases of venereal diseases did not occur. On the other hand excessive use of alcohol and tobacco is not unknown or, as Fred Allen put it when he expressed his opinion: "Mine grandfadder climb mountain for goat, heart no go 'bump, bump'. Now too much smoke, too much drink, too much cooked food—no damn good!"

[1] Meares 1790, 316.
[2] Meares 1790, 317.
[3] Dall 1877, 20 f.
[4] Meares 1791, xlvii. Portlock 1789, 250. Vancouver 1798, III 197.
[5] Elliott 1886, 110 note. Petroff 1884, 33.
[6] Golowin 1863, 54 f. Petroff 1884, 40.
[7] Petroff 1884, 145.
[8] Porter 1893, 4, 154. Cf. de Laguna: Arch. Repr. (MS).
[9] de Laguna: Arch. Rep. (MS).

ECONOMIC LIFE

The Annual Cycle.

The whole existence of the Chugach was based upon hunting and fishing. While providing a desirable variation in the otherwise somewhat monotonous diet and even saving many villages from starvation in periods of misfortune, food gathering has never been a factor of really great economic importance. In some parts of the Sound, notably among the Alukarmiut, Atyarmiut and Tatitlarmiut on the mainland, mountain goat was a favourite game; small rodents and birds were regularly pursued, and fishing was of course of great importance, but otherwise the meat of sea mammals made up the staple food.

At present it is not possible to give an adequate description of the annual economic cycle of the Chugach. Not only is there but a single native village, Chenega, left, but besides the establishment of numerous salmon and crab canneries, the prohibition of sea-otter and fur-seal hunting, etc., have caused an all but complete revolution in the economy. The following remarks are therefore incomplete and do not quite reflect the original conditions.

Spring, especially May, was considered the best season for hunting fur seal, but also sea lion were taken, and halibut fishing, which ordinarily started in February, was continued. The great event was, however, the arrival of the king salmon that inaugurated the extremely important salmon runs of the summer. When bad weather prevented regular hunting many shellfish were collected.

About the middle of June the herring fisheries took their beginning and lasted, if the weather permitted, till November late in the fall. Also halibut were caught. Around Chenega codfish are not plentiful, but in other parts of the Sound the early summer was considered the principal season for cod fishing. The run of the king salmon ceased about the middle of June but was immediately followed by the red and later by the dog and humpback salmon; and finally, in the beginning of August, also the silver salmon appeared. Probably the importance of the summer fisheries exceeded that of the hunting at the same season.

In the autumn sea lions were a favourite game, and mountain goats were hunted wherever they occured, *i. e.* especially on the mainland in the northeastern and northern parts of the Sound. Besides, both halibut and herring were caught, if bad weather did not prevent fishing.

Sea lion and mountain goat were still hunted during the winter, as were also seals, and bears were taken in their dens, but there can be no doubt that the winter, when storms and blizzards often made hunting excursions impossible, was a hard time, and people had to a great extent to live on the provisions stored away in their caches.

Some animals, as for instance whales and sea otters, were hunted more or less all the year round.

Whereas the preceding description is an account of Chugach life in former days as far as it is possible to reconstruct a general picture at the present period, the following refers only to conditions in Chenega at the time of our expedition. On May 1st, after school teaching has been discontinued, the inhabitants except some of the women and children together with most of the dogs move to Port Wells where they live in (white man's) tents with wooden floors, which are left from one season to another. Here they fish salmon for the canneries until August 2d, when the season closes. In the following time they are occupied with fishing and salmon smoking for their own supplies. There are still one or two smoke houses on Chenega Island. School starts the first day after Labour Day (the first monday in September) and lasts for eight months, but sometimes the opening of the school has to be postponed a week, because the families have not returned before. During the fall they shoot seals on the rocks at ebbtide. Squaw-ducks, pintails, copperheads and a few mallards and geese are also hunted, and the children often trap weasels in deadfalls. Bears, *i. e.* the black species, which is probably the only one living here, are likewise hunted, as are also mountain goats at Bainbridge and Port Wells. August is considered the best month for this kind of hunting. The bear meat is often dried and salted for winter use. In Icy Bay they shoot seals basking on the rocks at low tide. The hunter sits on the open beach or hides behind a rock, but the baidarka is sometimes used. Usually they employ a shot gun. Sealing continues throughout the winter, and sometimes traps are set for mink and land otter; people complained, however, over the prices that had dropped from $ 20 to $ 5 per otter skin. A good mink skin used to be worth $ 10. Spring is the main season for herring fishing, and bears are poked out of their dens and shot, because at this time of the year their meat has not yet acquired the fishy taste that attaches to it later when to a great extent they feed upon salmon. Red snappers, cod, and halibut are caught all the year round, and so is also the porcupine, although it is eaten mostly during the winter.

Sealing.

The following pinnipeds were commonly hunted: sea lion, fur seal, and spotted seal; more rarely the ribbon seal was encountered. In 1933 the government paid a premium of $ 2 for each seal. Walrus are very scarce and no information of walrus hunting was obtained. The principal sealing method was hunting from the kayak or baidarka, as the small skin boat is here commonly called with a semi-Russian word. Even in winter there is generally so much open water that it could be used.

For sea lions and seals—as well as for small whales—two or three types of harpoons were employed. At present the harpoon has gone entirely out of use. Stepan had seen harpoons in his youth, but he had never owned one himself. According to Makari the toggle harpoon was about 3 m long. It had a detachable head made of the wrist bone of a sea lion cut off obliquely at the rear so as to form a spur. The head was placed on a wooden foreshaft set loosely into the shaft proper. A line made of seal thong was fastened to the head, ran through a loop tied to the foreshaft and was connected with the shaft. The latter was made of spruce or hemlock but never of driftwood. Somewhere behind the middle of the shaft, probably about one third of its length from the butt, there was tied a float made of an inflated seal stomach.

In the *Museum für Völkerkunde* in Berlin there are several toggle heads from Chenega and Nuchek, of which IV A 6240, from Chenega, may be described as an example (Fig. 8b). It

has a triangular blade of slate with slightly convex edges set into a bone shank at right angles to the line hole. The shank is thin and has a single dorsal spur, a closed socket, and a line hole direct from side to side; there are no barbs. Length 13.4 cm, blade 4.4 by 4.0 cm. The foreshaft is made of wood, round at the distal end, but more flattened at the rear, where it widens to both sides forming a broad, wedge-shaped tang. The spur of the head is kept in the right position to the foreshaft by means of a thick ring of twisted bark shreds enclosing both the spur, the tip of the foreshaft, and the distal part of the line or "leader". The latter is a short and heavy sealskin thong forming a loop and made fast to the foreshaft by means of a whipping of braided sinew. To this loop the line proper has been attached. Length of free part of foreshaft 22 cm.

From Nuchek comes a similar head, IV A 6363 (Fig. 8 d-e). The slate blade, measuring 3.8 by 2.7 cm, is, in contradistinction to the blades of the other specimens, ground so as to form facettes meeting in the median line (unfortunately this trait does not appear on the photograph). The blade is further protected by a sheath made of two wooden plates placed together and wound with split spruce roots (?). The foreshaft differs from the first one described in being unilaterally extended at the tang. Length of head 15.4 cm, foreshaft 22 cm, sheath 12.8 by 4.4 cm.

IV A 6241 is a toggle head from Chenega with a similar foreshaft (Fig. 8 e). Length of head 16 cm. The same type of foreshaft is also found in other cases: IV A 6243 from Chenega, IV A 6244 and IV A 6288 from Nuchek; the latter has a cleft spur and a wooden blade which seems to be quite new and apparently put in for sale. On IV A 6242, also from Chenega, there is a shallow grove running backwards from the line hole on either side of the head, and the front side of the spur is cut so as to form a distinct offset. The foreshaft is missing. Length of head 18 cm, blade 7.4 by 3.9 cm.

There are several other heads (IV A 6287, IV A 6295, IV A 6297, IV A 6298 from Nuchek, and IV A 6242, IV A 6245, IV A 6246 from Chenega). They all belong to the same types as those mentioned and need no further description here. The smallest specimen, IV A 6287, measures 10.5 cm only, the free part of the foreshaft 15.5 cm.

Judging from the number of specimens found during our excavations barbed harpoons were far more popular than the toggle harpoons. The detachable head was set into a heavy bone socket piece fitted into the distal end of the shaft. It is not quite clear whether the barbed sealing harpoon had a long shaft with a float attached like the toggle harpon, although this is probable, as a specimen of this type from Kodiak is to be found in the Danish National Museum[1]. In the Berlin museum there is a much shorter barbed harpoon without a float, IV A 6289, from Nuchek, which is stated to be a sealing implement. It agrees, however, far better with the kind of harpoon which Makari described as being employed in sea-otter hunting, for which reason the description of this specimen is postponed to the next paragraph. Here, on the other hand, we may mention a barbed head, IV A 6249, in the same museum. It comes from Chenega and is made of native copper and provided with four unilateral barbs. Length 15.9 cm.

The lance with fixed head was another sealing weapon. It was said to have a triangular copper blade with a long tang, but very likely stone blades were also used. A modern specimen from Chenega in the Copenhagen museum, P 540, is made of a piece of round iron with a rather dull point and two small barbs; length 25.4 cm.

Finally, the seal was dispatched with a wooden club. It was somewhat curved and

[1] Birket-Smith 1941, 135.

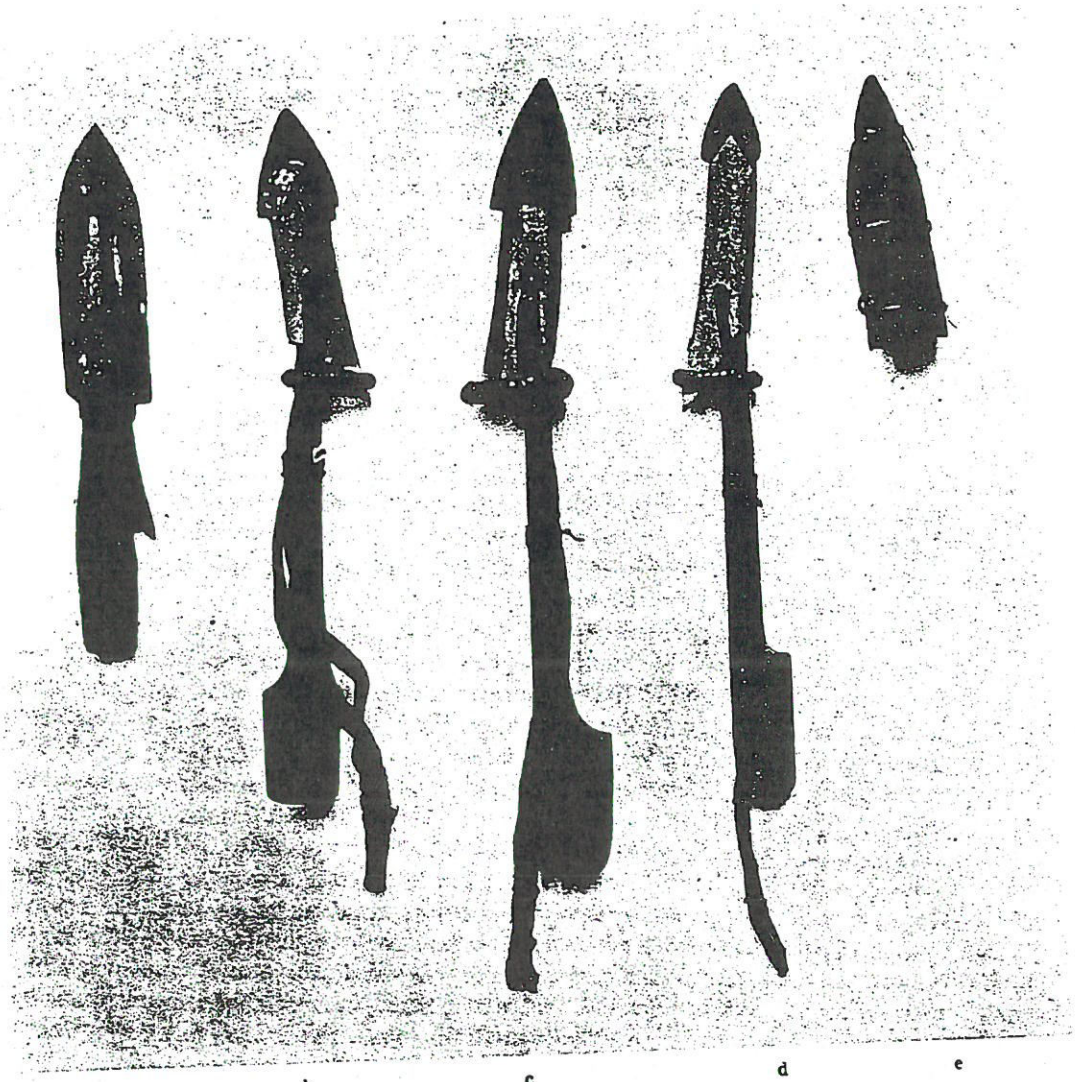


Fig. 8. Toggle harpoon heads. (Museum Berlin).

decorated with painted designs. A specimen from Chenega, now in the Copenhagen museum, P 539, is rounded on the front side and flat at the back. The handle is groved at the rear end and terminates in a flattened knob. Length 53 cm (Fig. 16b).

Spare harpoon and lance heads were carried in the baidarka within a selskin bag, sewn along the edges. According to Makari's description it had a handle of sealskin thong, but possibly this statement is due to mutual misunderstanding, and what he really meant was a running string.

Stuffed seals, or seal figures carved of wood were placed on the rocks or floating on the water as decoys. If the hunter then barked like a seal, the animals would come close to him. Wound plugs were not known, nor were sealing nets.

Sea lions are common in the waters between Chenega and Montague Islands. At Needle Rocks near Montague they can be met with all the year round. They were hunted mostly in the autumn when they are fat, but also in the winter and the spring, whereas they smell too strongly in the summer. Fur seals were much hunted in May, if the weather was fine, for instance round Naked, Knight, and Smith Islands. Both sea lions and fur seals are accustomed to sleep in the water and were pursued by a group of baidarkas, whereas the spotted seal was taken by single hunters. Sea lions are so big that three baidarkas were necessary to tow a single animal. For towing, a thong was passed through the lower jaw. Beartrap Bay is covered with ice in the winter. Here the hunters would pick a clear, starlight night and stand on the rocks on both sides of the narrow mouth of the bay. When the seals came out, they could see them on account of the phosphorescence "like fire" as they swam by beneath the surface of the water, and speared them from the rocks.

Needless to say, the ordinary Eskimo methods of ice hunting must at best be of very slight importance here. At rare instances seals were found sleeping on the ice, but whereas people at a place called Nanuarpaq on Cook Inlet were said to approach them by crawling up to them on the ice, this method was not at all—or at least very rarely—employed in Prince William Sound. Here, when a sleeping seal was encountered, the hunter would as a rule lay alongside the floe in his baidarka trying to prevent it from escaping into the water. If he landed on the ice, he would take care to do so to the leaward so that the seal did not get the scent. While sea lions never enter the lakes, seals will sometimes try their luck in them, in which case they have to keep breathing holes open in the winter ice. Then they might be taken with a harpoon without a float, the line being held in the hand. There was no ice chisel on the harpoon shaft as on the ice-hunting harpoons of the arctic coast. In the latter region the breathing holes are often entirely covered with snow, but this is not the case around Prince William Sound, so that dogs are not required to smell them out. Nor had the hunter to wait for hours before the seal arrived, probably because the extent of the floe is much smaller here, and the number of holes accordingly limited. At Nanuarpaq on Cook Inlet seals were also taken at the breathing holes.

No description of Eskimo sealing is, of course, complete if the charms, taboos, etc. for securing a good result of the hunter's efforts are not taken into consideration. These measures are not, however, of such specialized character as those for instance for sea otters and whales. The Bladder Feast described in a later chapter (p. 114) must be considered such a means, but it is a remarkable fact that whereas for all other kinds of game the heads, intestines, etc. supposed to be the seats of the animals' souls were treated in some special way in order to occasion the re-incarnation of the game, the urine bladders of the seals were expressly said *not* to be put back into the sea, as is the custom at Bering Sea. The secret hunting songs (p. 118) to procure good luck were of a more individual character.

Sea-Otter Hunting.

The sea otter was so abundant in some parts of Prince William Sound that it proved fatal to the existence of the Eskimo, for its extremely valuable fur enticed the Russians to extend their colonization to the east of Kodiak soon after the discovery. Portlock reports that the country of the Trhatlarmiut and the Shuqlurmiut, *i. e.* the large islands at the mouth of the Sound, were the places where the sea otter occurred in largest num-

bers[1], a fact corroborated by our excavations at Palugvik on Hawkins Island and by the sayings of the Eskimo in our own days. At Palugvik more than half of the bones in the shell heap belonged to this animal, and we were told that even common people there could sometimes afford to wear clothes of sea-otter skins. Many sea otters were hunted at the Twin Rocks between Mummy and Hinchinbrook Islands. In the summer season, sea otters were taken off Kayak Island[2], but otherwise they might be hunted all the year round. The two-seated baidarka was used, the hunter sitting in the forward hole, the paddler behind, and a great number of baidarkas went on the chase together. The animal is extremely shy and difficult to hit, because it travels on its back, sides, and belly and is always twisting about. Elliott has given a description of the sea-otter hunt[3], and while his words apparently refer particularly to the Aleut, they may probably be applied to the Chugach as well.

The hunting proceeded either with light harpoons[4] or with bows and harpoon arrows. The sea-otter harpoon was about 125 cm long, with a barbed head made of the bone of a black bear, and a heavy socket piece also of bone. It was thrown by means of a throwing board. A harpoon from Nuchek, IV A 6289 in the Berlin museum, is probably a sea-otter harpoon (Fig. 9). It has a bone head with two barbs on one side and one on the other; the butt forms a small, abruptly set-off tang. The line is a thick braid of sinew interwoven with strands dyed red. The line is attached to the shaft about one third of its length from the butt. There is a heavy socket piece with a small wooden peg inserted at the distal end and cleft where the shaft is wedged into it. Here there is a packing of bark and a seizing of thin sinew braid. The shaft is tapering towards the rear, but with a slightly thicker butt shaped like an inverted cone and feathered with three radial, split feathers. Head 7.7 cm, socket piece and shaft 133.5 cm.

There is also a throwing board, IV A 6257 in the same museum and collected at Chenega (Fig. 10b). The proximal part forms a handle with three deep finger groves on the upper side. On the same side of the board there is a longitudinal grove. The under side is fluted and has a grove for the forefinger and a small carving evidently representing two diverging seal flippers. Length 48.5 cm, maximal width 6.5 cm. The shape is exactly the same as that of two Kodiak specimens in the Danish National Museum, except for the fact that the right side of the handle is straight in stead of being convex like that of the Copenhagen boards[5].

When bows and arrows were employed, both hunters in the baidarka had their own bows, whereas the arrows were carried in a common wooden quiver placed between them on top of the baidarka. The bow had a wooden stave made from yellow cedar, with a narrow grip and flattened wings. Ordinarily there was no backing, but when the wood weakened from use, a backing of braided sinew was applied. The backing was never twisted, but consisted of parallel strands passing round the nocks, secured by half-hitches to the stave, and wrapped spirally by a single strand in order to keep the others from spreading. This is the kind of Eskimo bow described by Murdoch as the southern type[6]. The wooden quiver was cylindrical, widening toward the top and then becoming more or less cylindrical again. It was decorated with painted designs. Arrow shafts were made of young spruce, cedar, or hemlock, and no straightener was used in the manufacture. They had always

[1] Portlock 1789, 238.
[2] Sarytschew 1805–06, II 50.
[3] Elliott 1886, 139 ff.
[4] Cf. Ellis 1782, 243. Portlock 1789, 254.
[5] Birket-Smith 1941, fig. 17 a–b.
[6] Murdoch 1885, 309.

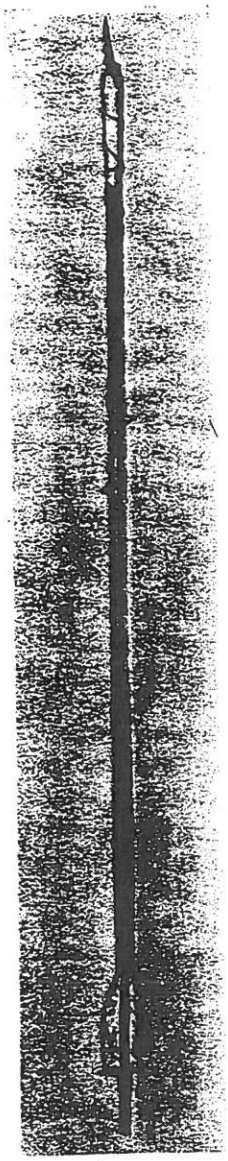


Fig. 9.
Sea-otter harpoon.
(Museum Berlin).

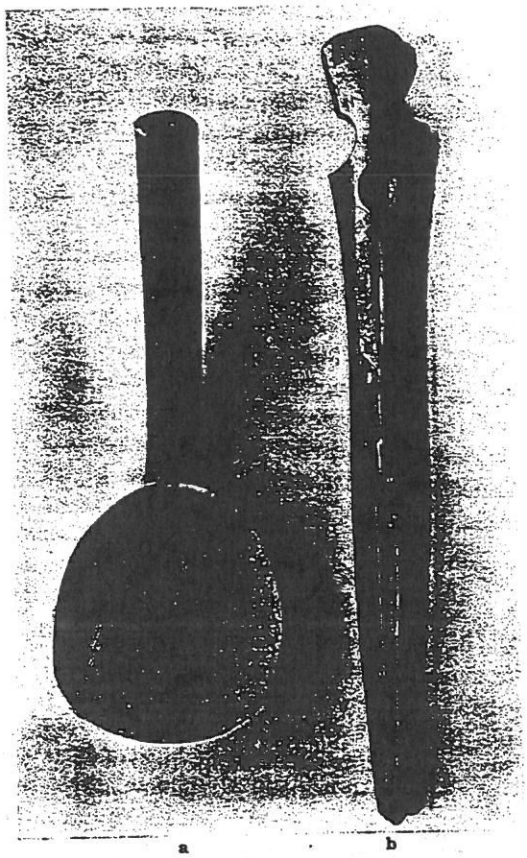


Fig. 10. Wooden ladle and throwing board.
(Museum Berlin).

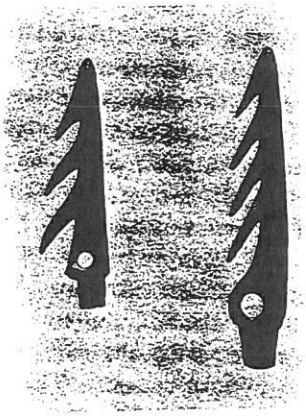


Fig. 11. Copper harpoon heads.
(Museum Berlin).

three split feathers tied on radially; the feather shafts were never inserted into the wood. The common arrow release differed from the so-called Mediterranean method otherwise universally employed by the Eskimo. The nock of the arrow was held between the thumb and the forefinger, and the string was pulled with the middle finger. The bow was held in a peculiar way, horizontally with the palm of the hand upwards and with the thumb, the ring and little finger in front of the bow stave, while the fore and middle fingers were behind the bow, the arrow resting on the outstretched middle finger. Wrist guards were unknown.

In the *Museum für Völkerkunde* of Berlin there are a bow, a quiver, and several harpoon arrows for sea-otter hunting, all collected at Nuchek (Fig. 12). The bow, IV A 6266, has a spruce stave of ordinary shape with a cylindrical grip and flat wings terminating in short and cylindrical nocks. The back is convex and the belly slightly keel-shaped. It has been broken, but is again glued together and wound with four lashings of braided sinew, the two innermost of which also include the backing. Some of the strands of the latter are hitched to the stave a short distance from the nocks, while others are shorter and attached closer to the grip, the middle part of the backing being wrapped spirally to form a round cable. The bow string is of braided sinew. Length 136 cm, maximum width 4.5 cm.

IV A 6609 is a sea-otter arrow. It has a detachable head of native copper with three unilateral barbs and is pierced for a line of sinew braid, the other end of which is attached to the proximal part of the shaft. The latter is of wood painted red, tapering towards the end where there are three radial split feathers and a knob-shaped nock with a notch for the bow string. At the fore end there is a long socket piece of bone with a small wooden peg, in which there is a narrow slit for the head. The socket piece seems to be inserted into the shaft and is secured by means of a seizing of thin sinew braid. A strand runs from the seizing along the shaft and ends in a short lashing, thus forming an assembling line. Packings of bark are placed under the lashings. Head 3.7 cm, shaft and socket piece 82.4 cm.

IV A 6610 is a similar harpoon arrow. The line is interwoven with red threads and white hair, and there are two assembling lines of different lengths, the longer one running in open spiral windings as far back as the nock, which is secured from splitting by means of a seizing sunk into the wood. Head 3 cm (the tip being bent), shaft and socket piece 78 cm.

IV A 6611, 6614, and 6615 are three other harpoon arrows, differing from those described only in unessential details. The former has no assembling line. The socket piece of IV A 6615 is embellished at the distal end with an incision filled with red paint forming a band with four points directed backwards; farther back there are three longitudinal lines ending in dots. Both the foremost and the hindmost parts of the shaft are painted red. IV A 6265 has a three-barbed bone head with a sharply shouldered tenon at the butt, but is otherwise similar to the rest of the specimens. On IV A 6613 the socket piece is broken off, from which it appears that the wooden shaft has been wedged into it.

From Nuchek come also fourteen copper heads for harpoon arrows. Only two of them, IV A 6271 and 6277, have four barbs, whereas twelve, IV A 6272, 6274–76, and 6278–85, are provided with three. Six specimens have shouldered tenons (Fig. 11); on one the tenon is only slightly set-off, and seven have a simple, wedge-shaped butt. The lengths vary between 3.2 and 4.6 cm.

The quiver, IV A 6608, is of light, reddish wood, consisting of two halves lashed together

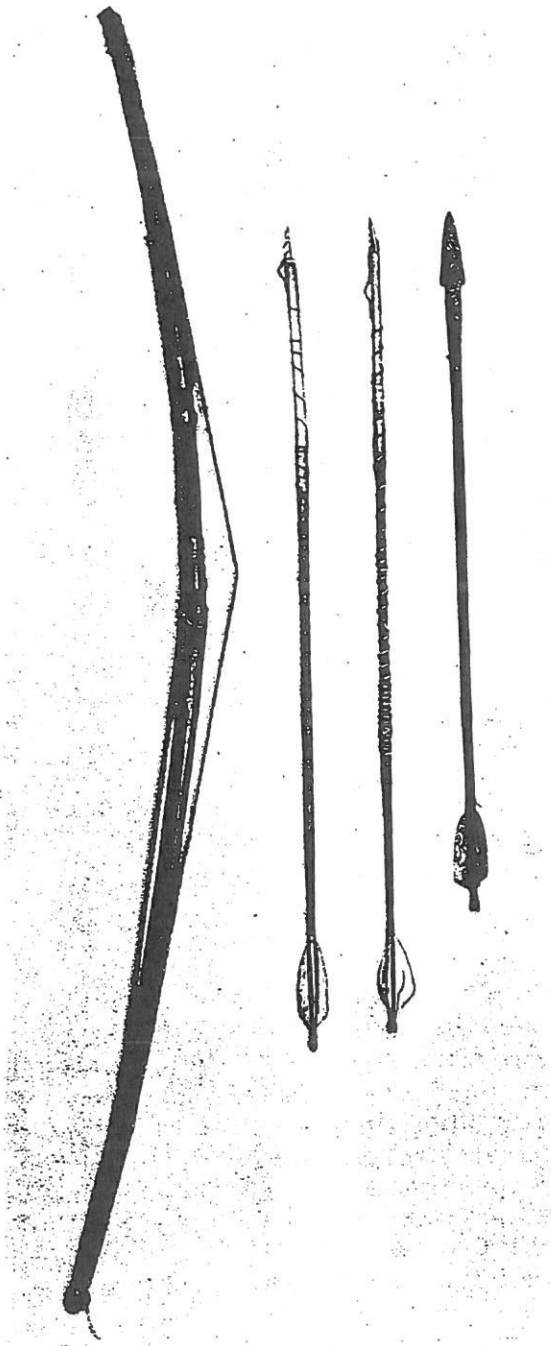


Fig. 12. Bow and arrows (Museum Berlin).

Fig. 13.
Wooden quiver.
(Museum Berlin).

with braided sinew sunk into the wood (Fig. 13). It is closed by means of a circular lid with a piece of ordinary string in the centre. The upper part is shaped like a high and narrow bowl and decorated with a red and black design with incised outlines, somewhat reminiscent of the style of the Northwest Coast Indians. Immediately behind it are three broad black bands, the interstices between them being filled out with solid red. Length 92.5 cm, diameter at top 10.5 cm, at bottom 5.5 cm.

In the baidarka the hunter carried a bag for spare harpoon heads, about 20 cm or a little more wide, and another bag for arrow points, only 15 cm wide but as long as a man's thigh.

Whereas sea-otter hunting as a rule was carried out with bow and arrows, Elliott also describes the clubbing of the animals on the shore[1]. Although we have no definite information about it, this method must have been used in Prince Williams Sound, as certain customs were observed for sea otters killed on land (*vide infra*).

Good luck on sea-otter hunts might be secured in different ways. First of all the hunters were to dress neatly, and the eating of a sea-otter foetus would make the hunter successful afterwards. Before leaving the shore an eagle feather was fastened to the prow of the baidarka, and if it trembled or shook, it was an omen of bad weather, or, as Fred Allen said: "No go—damn big storming coming". A powerful amulet was the one called cɩkmɪq, i. e. "wink." it was said to be part of an animal's skull and found by lucky people. It can open like a mouth and is filled with red paint and eagle downs and kept in the baidarka close to the man-hole so that the hunter can see it. It gives a light that attracts the sea otter, and when it opens it means that the hunter will kill one. The same name is also given to another (?) hunting charm consisting of a small, round and hard "stone" found floating on the water. It has a mouth and eyes that shine in the dark, and moves in a circle with the sun; if it moves in the opposite direction, it is a bad token. It was kept in a box with bird down and fed with red paint smeared around its mouth, as otherwise it would die and bring bad luck to the owner. If the box is shaken, it will have young ones (!). It may be found for instance near Montague Island. Stepan once saw one in the water when paddling in his baidarka. His partner took it from him and kept it for himself. It is probably the bean-like fruit of a tropical plant which is carried north by the ocean currents, and which also on Kodiak was highly valued for its magical qualities[2]. Another amulet used for sea otter was a humming bird together with its nest and eggs. The bird was dried and carried in a bag. It brings luck, because it is such a rare bird.

Hunters might also attract the sea otters, if they knew the animals' song. When a person sings it, the sea otters will always come close to him. Once Makari and some others were out hunting in their baidarkas and saw a sea otter swimming around with its young one, singing: "ohö . . ., ohö . . ."[3]. They stopped to learn the song, but whether it had any influence on their subsequent hunting is an untold story.

When a sea otter had been killed, the whole hunting party would not drink water till they got ashore, even though they had water with them. As soon as the sea otters had been landed, they were skinned and lined up in a row on the beach, and then fresh water was poured out on their snouts. When Makari was ten years old, he got his first sea otter. It was his sister's husband who took him and his partner out. After the kill,

[1] Elliott 1886, 142 f.
[2] Petroff 1884, 143.
[3] ö pronounced like German ö. This is the only instance this sound was heard; it does not occur in the ordinary language.

the rest of the party took him back to the camp and would not allow him to eat or drink until all hunters had returned. This was a general custom for boys killing their first sea otter; but Makari was not used to fasting and felt quite weak. The sea-otter skin, which at that time was worth $ 10, he gave to his partner, who later became the father of Makari's daughter's cousin. Besides the special taboo for the first sea otter, the ordinary rules for the first game of a boy also had to be observed.

The sea otter was originally a man who was surprised by the tide once he was out looking for chiton and then cried: "I wish I might turn into a sea otter." That this is true can be seen from the fact that its internal organs are exactly like those of a human being. This is also the reason why the skull and the bones of a sea otter should be buried in the ground if it was killed on the shore. However, if it was killed at sea what is not wanted must be sunk into the water. Otherwise there would be no more sea otters.

Whaling.

Whaling was an occupation of paramount importance, although whales never entered the shallow waters between Cordova and the lower end of Hawkins Cut-off. The Chenega people hunted—and may to some extent still hunt—the following species: big whales (sperm whales?, humpbacks?), little finners, white whales, blackfish, and porpoises. The meat of the white whale is supposed to cause diarrhoea.

Whales were hunted only by certain persons, of whom there were several in each village. They had formerly to undergo a special training and surrounded their task with much mystery and ceremonialism. It is no wonder, therefore, that our information on this topic is rather scarce and partly contradictory. We were told of two or three different methods of hunting, one of which was evidently the same that has formerly been reported from Kodiak, whereas another corresponds more nearly to that of the tribes at Bering Strait and of other Eskimo.

Makari gave the following description of the hunt. Small whales were hunted from two-hole baidarkas with the same kind of toggle harpoon as was used for sea lions and seals (cf. p. 24f), but big whales were attacked with lances with a slate blade. The latter was of the length of a finger, rather broad and provided with a tang set into a detachable foreshaft of hard wood. The Kodiak blades were said to be much larger than those of the Chugach[1]. For lance shafts, spruce or hemlock were used.

Whaling was carried out at all seasons but especially in winter, two or three baidarkas going out together. The actual hunter sat in the forward hole; the man aft was only a paddler. 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. There is some uncertainty as to whether the lance heads were "poisoned". Makari denied it, and so did also Stepan. It is generally told in the early accounts from Kodiak that the whalers smeared their weapons with pieces of human fat

[1] This is corroborated by the Kodiak lance blades in the Copenhagen National Museum, which measure from 13.3 to 41.2 cm (Birket-Smith 1941, 138). The average length is given by Lisiansky (1814, 206) as about 26 cm.

or flesh, but as shown by Heizer the toxic effect was really due to the use of an aconite extract[1]. Makari himself said that the whale meat was poisoned by the lance blade and had to be cut out and thrown away. It is probable, therefore, that the Chugach followed the same custom as the Kodiak Eskimo.

The whaler was a highly respected person. Any young man who wanted might join the profession. He was then trained in secret by an older teacher, to whom he might give a present later on. The whalers had no special food taboos and ceremonies except those for the preparation of the hunt, but they were not supposed to associate with menstruating women, and their weapons, which might be used for several seasons, were kept hidden away and were never brought to the village. They also used to make pictures of all kinds of animals on the rocks in secret places: "this was their luck". The rock paintings discovered by our expedition in Prince William Sound probably belong to this class of pictures[2]. The whalers were reputed for killing people and secretly boiling out their fat to make "poison", and during this process they shook rattles in both hands so that anybody accidently approaching the place could not hear the fat crackling. This statement probably means that the procedure was accompanied by magic songs. Whereas both the Aleut and Kodiak whalers stole bodies of persons dead long ago, the Chugach only used fresh corpses of persons they had killed themselves. Although this might suggest the use of ptomaine poison it seems doubtful whether the effect of the resulting product was not purely magic, the true poison being the above-mentioned aconite extract. Nevertheless the "fat poison" was highly dreaded. It was believed to be so powerful that it would kill any man, and it even sufficed to throw it at him or smear him with it. If a bird flew over a baidarka in which the poison was kept, it would drop dead into the water!

Before going on a whale hunt the whalers had to dress neatly, and the young hunters should keep continent for three days, whereas old men did not have to obey this rule. Their wives were supposed to stay at home while the men were out hunting, for otherwise the whale would leave the hunters, just as the wives left the houses. The women also had to take care of their dress and keep everything in good order. However, there were no food taboos during the hunt, and contrary to Greenland customs the whalers were allowed both to spit and urinate in the water. Some other whaling customs followed by other Eskimo tribes were also unknown to the Chugach: the whaler's permission to sleep with the chief's wife before the hunt; his wife's pretending to go to bed in order to attract the whale; and the children's three-legged race into the hills for the same purpose.

When the dead whale drifted ashore, the wife of the whaler took water down to the whale in a basket, because it likes water, probably—as is the case of seals and sea otters —because it lives in the salt ocean and therefore suffers from thirst. When the carcass was being flensed, everybody should smear as much blood and blubber on themselves as possible, because it pleased the whale to see the people so happy, and therefore it would return to the village. Afterwards a feast was celebrated where the poor people were served first, and after the eating there was dancing, and games such as the tossing-stick game and skipping over a seal thong were played. Special rules applied to a man who killed his first whale (cf. p. 87).

Different in nearly all details from the description given above is the following information obtained from Stepan. According to his own statement he had his knowledge from

[1] Dawydow cited in Holmberg 1856, 391. Lisiansky 1814, 174. Petroff 1884, 142. Heizer 1943, 437.

[2] de Laguna: Arch. Rep. (MS).

his grandmother and her second husband. They were both from Montague Island. His grandmother's father, who lived on Wooded Island, was a great whaler by the name of Atlutaq, and Stepan was named for him (cf. p. 4).

A whaling party, he said, consisted of ten or twelve large skin boats or baidars, similar to the ordinary Eskimo umiaq. Each one had a crew of ten paddlers, one steersman, and one harpooner who stood at the bow. The party would be recruited from several villages and was commanded by a whaling chief who had his place in the prow of the foremost boat. He did no actual work, but he was an experienced hunter who told the men where to go, when and where to throw the harpoon, etc. Before the party left, the village chief would inculcate the crew to obey his orders. A very strong man was always chosen as a steersman. He had to keep the boat out of the way of the struggling whale and especially its lashing tail. The harpooners were men who had training and experience in whaling. There were several of them in each village. They went through no special rites and had no spirit helpers, for "people would not eat meat of a whale killed by a shaman".

The whaling harpoon, which Stepan called by the ordinary word for a toggle harpoon, had a slate blade as long as a man's fore-arm(!) fitted into a wooden foreshaft, which again was socketed in a heavy wooden shaft nearly 3 m long. A line of sea-lion skin ran from the head to the middle of the shaft and then to a float of an inflated sea-lion stomach, the end being made fast to one of the thwarts of the boat (?). The whalers attempted to approach the whale when it was asleep. Midday was considered the best time. One boat crept up to the animal and thrust its harpoon. If the heart was struck, it died instantly, if not, the other boats would come up and try to sink their barbed harpoons into the whale as soon as it appeared at the surface to breathe. The lines of these harpoons were likewise made fast to the boats. If possible as many as five harpoons were used. As soon as the whale was wounded, the harpooner (or the chief of the party?) started to sing and dance, moving his leg clockwise in a circle. He asked if the whale wanted to see his face, or his foot. Next time the whale was hit, the song was repeated: "After I have killed you, do you want to see me dance? I would not feel bad, if the whale dived with me! I would not let the whale dive with me! After I have killed the whale, he will feel fine with all the people around here!" Unfortunately only the general meaning and not a literal translation of the song was obtained. The original text runs as follows:

canduaŋa
kula·mɑm-augʊm
cɑk·iutaŋa ajɛ·ja·ŋa una
taʟɪ·ra una
qucäkʟūgo ajɛ·ja·ŋa cɑnime tʊ·akən
uigwɑʟaranɑka
ᵊn·eramaxkʊ·na·ke
awa tʊ·akən ɑʟpət tʊ·akən pɪtʀʀkʊmkən
ʃʊ·kət katɔrᵗʟuke ʟɪ·lɛrlʊ·ta

The whale gradually tired, and when it had ceased struggling, it was dispatched with a lance which had a slate blade similar to that of the harpoon but not detachable. If the lance came out of the wound, it was thrown again. Sometimes it lasted till the next day, before the whale was finally killed. When it died, people heard a sound like a puppy whining. As soon as it died it was buoyed up with sea-lion stomachs and towed back to the village by all the boats tied in a line. Stepan denied the use of poison on the harpoon

heads—"people would not eat the meat, if it was killed by poison"—and had never heard of pouring human fat or anything else across the mouth of a bay to keep the whale from escaping.

Before they went out, the whalers had to fast and keep away from women for five days. They were only allowed to drink a little water. During the hunt the man who killed the whale could not drink at all. As soon as the party landed on the beach the chief of the village came down. "Who hit the whale first?" he asked. Then he gave the harpooner who had first struck the whale a drink of water, and after drinking he passed the bucket to the next one. Stepan knew nothing of offering water to the whale. Afterwards the person who had killed (or first struck?) the whale would travel to all the villages in the Sound (or probably only in the neighbourhood?) and tell everyone of his achievement, and a feast was held in honour of the whale's soul. The chief of the home village divided up the meat, giving an equal share to everybody. Each man roasted a piece of his meat in the fire and gave presents to the one who had killed the whale. He, however, made a speech saying that he did not do it without assistance and gave most of the presents to the rest of the hunting party. Everyone felt happy. The whalers started singing and dancing, and the others joined in. What kind of songs they sang, and whether masks were used, could not be ascertained. People had to take care that no whale meat was wasted, for if a piece was thrown away so that it was eaten by maggots, the whale's soul would feel offended and there would be no whales for a long time afterwards, or if a whale was harpooned either the line would break or the whale would capsize the boat with its tail.

A third version of the whaling methods was obtained from Paul Eliah Chimovitski, who curiously enough said that he had his knowledge from his brother Makari. According to Paul Eliah twelve or fourteen baidarkas would go out together. The harpoon had a blade of whalebone (*sic*!) about 45 cm long (*sic*!) and a line of sea-lion skin to which a float of a sea-lion stomach was attached. When the wounded whale dived, the baidarkas spread out, and as soon as it reappeared the harpooner shouted: "Hi, everybody, go after him!" The nearest baidarka hurried up and threw its lance. The whaling lance had a detachable slate head that remained in the wound, but no line. Sometimes the harpoon would pierce the whale's heart and kill it instantly, but it also happened that it was necessary to throw the lance several times. If the whale did not die quickly, as many baidarkas as possible would take hold of the float and hold back. When a great number of baidarkas took part in the hunt, they would cut up the carcass in the water in order to save the trouble of towing it home. Paul Eliah believed that the lances were poisoned, but was not sure of it, and he had not heard of pouring poison around the mouth of a bay.

There is a fundamental difference in the methods as they were described by Makari and Stepan respectively, whereas Paul Eliah may only have mixed up the methods of hunting small and big whales. There can hardly be any doubt that whaling from baidarkas occurred, since it has been mentioned by almost all authorities dealing with the ethnology of Kodiak. On the other hand whaling from large skin boats has, as far as I know, never been reported from the Pacific Eskimo. There are details in Stepan's account which are obviously wrong, for instance the exaggerated size of the harpoon blade and the fastening of the harpoon line to one of the thwarts, which would probably mean certain death to the crew, even though the fin whales try to escape in the surface instead of by diving. These inaccuracies, however, do not necessarily prove that the whole description is incorrect, the more because it agrees with the method employed by other Eskimo tribes. We

might well ask whether it had been introduced here by the Russians, but apparently they never interfered with the occupations of their native subjects except in organizing the sea-otter hunting. Moreover, Stepan emphasized that whaling with baidarkas was not used till after the introduction of fire arms. While this statement is certainly a mistake it at least implies that he considered the other method an old and aboriginal one.

In conclusion three harpoon or rather lance heads in the Berlin museum may be described. They all come from Chenega. IV A 6238 has a large blade of slate glued on to a bed on one side of a flat, wooden shank. On the blade an incised, angular design, perhaps an owner's mark, is distinguishable. The shank has an unilateral barb and a wedge-shaped tang. Total length 25.2 cm, blade 14.2 cm, shank 21 cm. IV A 6237 differs only in having the blade (which is now broken) lashed on with a strip of bark or spruce root. Total length 32.2 cm. On IV A 6236 the shank is long, with a barb placed rather far back and a short blade fastened with bark. Length 36.2 cm.

Hunting of Land Mammals.

The hunting of land animals fell far behind the hunting of sea mammals both economically and socially. Only one big terrestrial animal, the mountain goat, was pursued regularly. Besides some small carnivores and rodents were taken for the sake of their fur more than for their meat. Black and brown bears, wolves, etc. seem to have been killed more occasionally.

In land hunting, both bows and arrows, traps and snares were used. Sauer also mentions a method of hunting in disguise, the hunter wearing a wooden helmet like a bear's head and hiding under an animal's skin[1]. The bow was the same as described in a preceding paragraph (p. 30), but the arrows had never detachable heads. An arrow for hunting on the land in the *Museum für Völkerkunde* in Berlin, IV A 6254, has a triangular slate head with slightly convex edges and terminating in a rather long and broad tang inserted into the shaft, to which it is secured by means of a lashing of sinew thread (Fig. 12). As regards shaft and feathering there is no essential difference from the sea-otter arrows. Total length 72.2 cm; length of free part of head 11.1 cm; width 2.8 cm. On land, arrows were carried in a skin quiver. IV A 6248 is a specimen from Chenega in the museum of Berlin (Fig. 14). It has the shape of a bag of depilated sealskin sewn together at one edge. Along the latter there is a wooden stick lashed on in three places with sealskin thongs passing through holes in the skin as well as in the wood. Length 47 cm. In the museum notes of Captain Jacobsen its native name is given as *ibakkooritū´tt.*

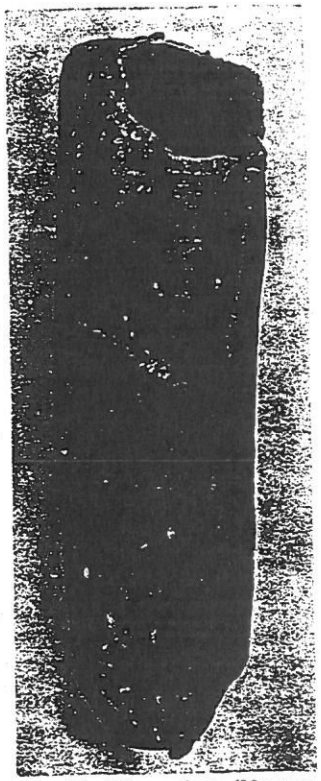


Fig. 14. Skin quiver (Museum Berlin).

We have no specific information regarding the use of dogs in hunting, but some remarks in the legends clearly indicate that they smelled out the game.

Mountain goats were preferably shot in August and September, and the Chugach were, in fact, experts in this kind of hunt

[1] Sauer 1802, 199.

during which, according to Petroff, they evinced a "skill, daring and perseverance equalling those of any Swiss or Tyrolean chamois-hunter"[1]. The bones of the mountain goat—which were never used for tools – were left on the spot under a rock, but were not buried. If, as might rarely happen, a stray moose was killed, the hunter would say: "Go over where there is plenty of water and plenty of wood!"

In the winter, bears were attacked in their dens. They were also taken in snares fastened to a tree cut halfway through, and when the bear was caught, the tree would be pulled down by its movements and act as a drag to prevent its escape. It was then killed with arrows. Paul Eliah told of another kind of snare used both for catching bear, wolf, wolverine and lynx. It had a running noose at one end and a heavy log attached to the other and was suspended from a hole through a tree in such a manner that the log was leaning against it. When the bear put its head in the noose, its struggles to get free made the log slip, and in falling it hoisted up the bear sufficiently to strangle it. There is said to be a tree used in this way still standing near Beartrap Bay at Port Gravina. A third device for hunting bears was the deadfall, arranged in such a manner that an obliquely placed beam fell down in the moment the trigger was pulled, pressing the neck of the bear against a horizontal log below. Both beams were provided with spikes of pointed branches left on the trunk. According to Paul Eliah only bears killed by spears or deadfalls were eaten, but not those taken in snares.

On bear hunts the hunter carried with him leaves of a certain fern. tuqujuiłŋuq, the root of another fern (*Polypodium vulgare*), and the dried veins from the under side of a bear's tongue. If the bear attacked he would chew this and breathe at the bear, as that would immediately have a soothing effect on the animal. Before killing it, the hunter would say: "We do this because we need you—not for fun". The skull (and the bones not used for tools?) were buried at the place where the bear was killed, facing inland so that the remains might turn into a new bear.

Deadfalls of another type than that used for bears were set on the paths of land otters and for mink. They had a roof or top of beams weighted by stones (Fig. 15). It rested with the lower end on the ground and the upper end against a frame consisting of two uprights and a cross piece. Underneath there was a long pole. A trigger caused the roof to fall down when touched. Small fur bearers like fox, mink, etc. were also caught in torsion traps of the type known from the Bering Strait Eskimo[2]. Moreover, for land otter, mink, marten, and fox a snare might be used. It was fastened to an elastic, bent-down stick that flicked upwards at the slightest touch. Pitfalls were not known, nor were the box and tower traps of the Arctic Eskimo.

Bird Hunting.

Birds were hunted with bows and arrows, but neither blunt nor multipronged bird arrows were used. The same is true of the common Eskimo multipronged bird dart. In places where there are many clams, and where gulls and other sea birds therefore are in the habit of diving down, a circular thong with several nooses was placed on the surface of the water. In the middle of the circle crushed clams were put as a bait. In decoying birds their cries were imitated, but no decoy whistle was known. Gulls and ducks were also taken on a gorge made of a single, three-pronged piece of wood, or a pointed stick

[1] Petroff 1884, 145.

[2] Cf. Nelson 1899, 122 f.

Fig. 15. Makari showing model of deadfall. (Photo K.B-S.).

to which a cross-stick was tied. In the Copenhagen museum there is a specimen of the former type from Chenega (P 541); at the point where the three, faintly curving prongs meet, it is pierced for the attachment of a string. Gorge 7.3 by 4.8 cm; string 86 cm.

Cormorants were caught in a net of sinew braid stretched between the nests, or clubbed at night. On a bare rock called Nigaruvik, *i. e.* snaring place, off Port Gravina, eagles were snared with salmon heads for bait.

Bolas were not used in bird hunting, but flat stones were thrown by means of a cleft stick. An implement of this kind, now in the Copenhagen museum (P 543), was made by Makari (Fig. 16 a). It consists of a narrow piece of wood, one end of which forms a slightly curved handle, whereas the other end is split in two, carved on the inside so as to accomodate the stone, and afterwards lashed together again. Length 68 cm. A spirit in one of the stories (p. 144) had a stone sling made of a seal pelvis fastened to a wooden handle. The stone was placed in the femoral socket. A whip sling may be used now, but not formerly, whereas ordinary slings were known.

The remains of sea birds, *i. e.* the guts (cf. the tale p. 160), were thrown back into the water, but those of land birds were left on the ground.

Fishing.

Halibut and cod were caught in the early summer. Halibut are said to bite especially on a flooding tide. However, as early as the beginning of May the salmon run starts with the arrival of the king salmon, and during the whole summer the run continues with different species. The summer is therefore the most important fishing season. Herring and olachen were also taken in large numbers. Several kinds of fish hooks and spears were

a b c

Fig. 16. Throwing board for stones (a), sealing club (b), and siphon (c). (Museum Copenhagen).

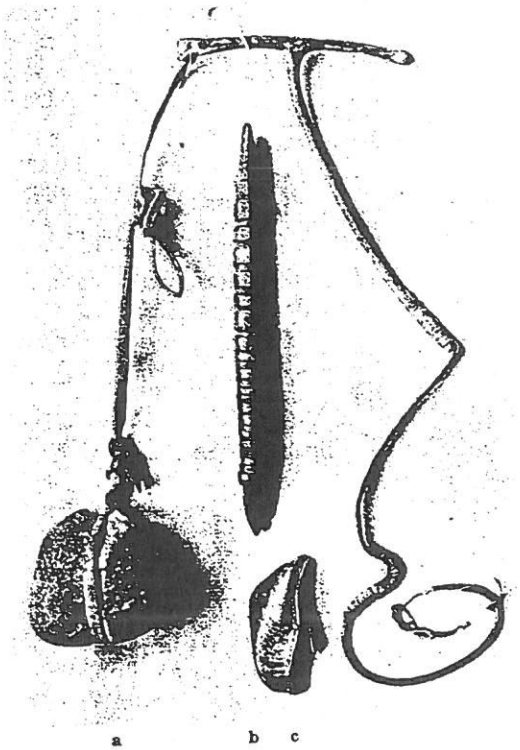
in use, whereas ordinary fishing nets were said to be unknown originally, and the netting implements from this area are apparently all of recent manufacture. It is true, however, that Portlock says that "herring, I believe, they catch with small nets"[1]. At the present time, when salmon is caught for the canneries, the Chenega people have both ordinary nets and purse-seines from which the fish is scooped up with dip nets.

The halibut hook was made of two pieces of wood, the shorter of which was provided with a barb. This type is evidently the same as was used on Kodiak[2] and related to the Northwest Coast Indian form. In the *Museum für Völkerkunde* there is a specimen from Chenega, IV A 6251, which is made entirely of iron bent into a nearly elliptical shape (Fig. 17a). It is suspended by means of a piece of thong from the long branch of a short, bifurcated stick. To the shorter branch is tied a piece of sealskin thong with a round stone sinker notched at the edge for the lashing.

The cod hook had the shape of an acute angle and was made of wood or the "wishbone" (clavicles) of the great northern diver. During the archeological excavations we found

[1] Portlock 1789, 253.

[2] Birket-Smith 1941, 146.



a b c

Fig. 17. Halibut hook (a), knife for scraping mussels (b) and shell scraper (c) (Museum Berlin).

V-shaped fish hooks with a bone barb and a shank of wood or bone. From Chenega comes a cod hook, P 542 in the National Museum of Copenhagen, suspended from a similar device as the one employed for the halibut hook (Fig. 21 a). The hook itself is of a simple, barbed type, and the sinker a natural boulder. Hook line 24 cm; sinker line 65 cm. Fish lines were formerly made of kelp spliced together, some pieces of kelp being nine fathoms long.

When the salmon entered the rivers, they were taken in weirs. A log was placed across the river, and on the upper side poles were set obliquely against it, the lower ends being driven into the bottom of the stream. Stone weirs were not (?) used. The fishermen stood above the weir and speared the fish with barbed harpoons. Portlock mentions salmon weirs, but unfortunately without giving any description of them[1]. A gaff was also used for catching salmon. Fish traps made of roots, grass, or bark were placed at the mouths of the streams, with the top up-stream. When the tide went out the fish were trapped in the basket.

Herring were taken with a leister with three wooden prongs. In Chenega I saw a modern specimen with barbless iron prongs. At the same place I likewise noticed a spear said to be used in fishing, but called with the same name as the sealing lance. It had a flat, rather broad and blunt iron head with a small barb on either side. The head was inserted into a wooden shaft and secured by lashing. Herring are also taken on a fish rake, made of a long pole with heavy steel wires, the ends of which have been flattened out and sharpened, fastened to the pole for barbs or teeth. With this implement the herring are shoveled

[1] Portlock 1789, 253.

into the boat. Sometimes the pole is equipped with barbs made of straightened-out fish hooks.

Formerly a fish snare was made of spruce roots and fastened to the end of a stick. The length of the snare varied according to the depth of the stream.

Fish intestines should be thrown back into the water so that they may turn into new fish. If they drift ashore, the soul of the fish, which remains in the guts, will die and the fish will not come to life again. The first fish (salmon?) caught each year must be eaten entirely except for the gall and the gills. If anything of the fish is wasted, it will never come back.

Food Gathering.

As mentioned on a former occasion, food gathering was of some importance in Chugach economy, even though food procured in this way would only serve as a supplementary diet except in periods of actual dearth. The contents of the ancient shell heaps show that clams, cockles, mussels and other shellfish played no inconsiderable part in the kitchen (cf. p. 18). Sea urchins and a species of sea slug were also used for food, whereas there is no evidence that crabs and shrimps were eaten. Clams were dug especially in the spring, when the weather often prevented other methods of obtaining food. A knife from Chenega in the Berlin museum, IV A 6256, was stated to be used for scraping mussels (from the rocks?). It has a short, triangular iron blade inserted into a wooden shaft with a chisel-shaped end and seven cross-groves (Fig. 17b). Total length 26 cm, of which the blade is 3.5 cm.

The flora contains a great many species which were collected more or less regularly. Unfortunately it has only been possible to identify a minority of the plants that entered the diet, but at any rate their number was considerable. A wooden stick was used to dig up the roots and tubers. The edible plants included two species of rockweeds (*Fucus*) called lɔrtuin·ät and ata·quit, two species of kelp (*Alaria*?), ɩ·tuq and ʃit·a·lät, and several other kinds of sea-weed (?) called caralqät, ɩ·rut, caralqarpagät, kala·gät, and cauqarälqɩ·t respectively. A great many berries were eaten either raw or prepared in some way: strawberries (*Fragaria chiloensis*), salmonberries (*Rubus spectabilis*), cloudberries (*R. chamæmorus*) wild currants (*Ribes sp.*), crowberries (*Empetrum nigrum*), blueberries (*Vaccinium ovalifolium*?), lagoonberries (*V. uliginosum*?), mountain cranberries (*V. vitis-idæa*), mossberries (*Oxycoccus quadripetalus*), chickenberries (*Arctostaphylos alpina*?), high-bush cranberries (*Viburnum pauciflorum*), *Unifolium dilatatum*, *Menziesia ferruginea*, etc. The bulbs of the Kamchatka lily (*Fritillaria camtschatencis*), locally known as Indian rice, were collected before the plants flower. A plant called kuna·q, looking somewhat like a pumpkin, which is yellow and sweet and has leaves like a fern, and the wild celery (*Coelopleurum gmelini*) were also gathered, and so were the stems of another huge umbellifer, the cow parsnip (*Heracleum lanatum*), the roots and leaves of the sorrel (*Rumex occidentalis*), the lupine (*Lupinus nootkatensis*), the nettle (*Urtica dioeca*), and a plant called aʃarquit; the latter should be taken before the leaves come out. Crab apples, said to be plentiful before a hard winter, and the inflorescence of the Alaskan fringe-cup (*Tellima grandiflora*) were also consumed. The edible kuna·q mentioned above should not be mistaken for a similar plant, artaq, which was supposed to be the "crow's kuna·q". If to all these vegetable products we add the cambium layer of the hemlock and other conifers, it is evident that the part played by the flora in Chugach economy by far exceeded that of most other Eskimo.

Preparation of Food.

It will appear from the preceding pages that the meat of sea mammals and fish, and to a smaller degree also that of land animals and birds, formed the staple diet, with mollusks and different vegetable products as additional food. Says Portlock: "... the principal part of their food was fish; by way of variety they ate the inner rind of the pine-bark dried; but their greatest luxury was a kind of rock-weed with the spawn of some fish or other, of which they gather and eat great quantities: they also eat the inner rind of the angelica and hemloc roots, which, though poison to us, by constant and habitual use become to them familiar and serviceable"[1]. Both Cook and Meares likewise emphasize the importance of fish, and the latter author adds that whale meat, often raw, was particularly relished[2]. Apparently there was no taboo against the meat of any kind of animal, although wolves and wolverines were never eaten. On the other hand the Chugach had no prejudice against fox meat. A species of octopus was also eaten. Numerous archeological specimens of large slate knives are supposed to have been used for cutting up meat.

The most common method of cooking was stone boiling in watertight baskets[3], but meat might also be roasted on a flat stone previously heated, or on a spit placed obliquely beside the fire and turned when necessary. Hunters used to cook mountain-goat meat in the stomach of the animal, after it had been turned inside out. No blood soup was made. Raw (?) meat was eaten in a frozen state. Meat stored away for winter supply was dried. According to Portlock "they never practise the method of smoking their provisions, and, for want of salt, have no other way of curing their winter stock than drying it in the sun; their fresh fish they generally roast, by running some sticks through to spread it, and clapping it up before the fire"[4]. Nowadays the smoking of fish is a general custom. Silver and humpback salmon are dried and smoked so that it becomes a little scorched outside; then they are cut in strips two fingers wide and put up in seal oil for the winter. Salmon may also be prepared in the following manner: the fish is split and placed in a wooden container hollowed out of a log, and then covered with seal oil; after that, heated rocks are dropped in to cook the mixture.

The roe of the dog salmon is removed when the eggs are loose and the fish is ready to spawn. They are then ground up in a wooden mortar, probably the same item used as a storage box for food, as it is called by the same word; for this a wooden pestle is used. Specimens of stone and whalebone mortars were recovered by our excavations. After being crushed in this way the eggs are washed in fresh, cold water, which is changed constantly, and the fat is skimmed off. The water is squeezed out with the hands, and the remaining substance it put into a wooden tub to ferment. In a week or two a hard crust forms on the top. The crust is removed and either eaten instantly or cooked with fresh, loose dog-salmon eggs and then saved for the winter. The remainder is also kept and eaten during the winter together with seal oil and mixed with a few dried berries.

Silver-salmon eggs are dried in the sun and smoked for two days. Then they are put into a keg and pressed hard with a board until they form a compact mass, which is sliced and eaten.

Berries are prepared in different ways. A kind of blueberries, atsat, are spread on a large wooden grate on which grass is first placed; they are then dried over a fire and put

[1] Portlock 1789, 239 f.
[2] Cook & King 1785, II 374. Meares 1790, xxxv.
[3] Cf. Portlock 1789, 253. Meares 1790, xxxv.
[4] Portlock 1789, 252 f.

up for winter, but before eating they have to be soaked in water. A mash might also be made of fresh blueberries (the same kind?) and was spread on skunk-cabbage leaves to dry. After drying, the leaves were gathered about the cakes and stored away for winter use. Ordinary blueberries are too juicy to be treated in this way. Lagoonberries are put up with seal oil. Wild currants are eaten in the winter season with seal oil mixed with salmon roe, and moss berries are put in seal oil together with stalks (?) of the Kamchatka lily. Kamchatka lily stalks are also dried separately and boiled. Strawberries are boiled and dried in flat cakes, and in winter they are eaten with other food after being soaked in hot water. A species of sea-weed, the above-mentioned CARALQÄT, is dried, being constantly turned during the process; afterwards it is cut in pieces and put up with seal oil in a seal stomach; before eating it has to be cut up again. The pumpkin-like plant, KUNA·Q, is baked in the fire; then the rind is removed and the inner part put up in seal oil. Spruce, yellow cedar and hemlock bark is pulled off the trees and cut into strips; the cambian layer is then scraped off with a shell, dried and smooked, and after being soaked in seal oil it is packed in seal bladders to be preserved until needed. It is used as a seasoning or sweetening in many dishes. Fern roots are baked in an earth oven; first a hole is dug and lined with rocks and skunk-cabbage leaves, the roots are put in and covered with gravel, and then a fire is built on top and allowed to burn for two hours. The roots are left in the oven over night, before they are ready for eating[1].

Leaves of salmonberry are dried and used for tea (a post-Russian custom?). A crude snuff was made from the ashes of hemlock and yellow-cedar bark; after the arrival of the Russians it was mixed with tobacco.

At present, hardly anybody puts up winter provisions. This custom was generally abandoned, when the Ellamar mine opened about 1901. Nowadays the ordinary diet includes flour, tea, coffee, sugar, etc., although meat and fish still seem to be the most relished food. The Chugach are very fond of sugar and sometimes eat it with smoked salmon. Onions are also a great favourite which they always try to have on hand. Home-brew beer is made of sourdough. Both men and women chew snuff, and the men buy cigarettes, but only one old woman in Chenega smoked a pipe. Women do not smoke unless they are given a cigarette, which they enjoy in private. Most of the people, however, are almost always out of tobacco.

1 Baked fern roots are also mentioned by Cook (Cook & King 1785, II 374).

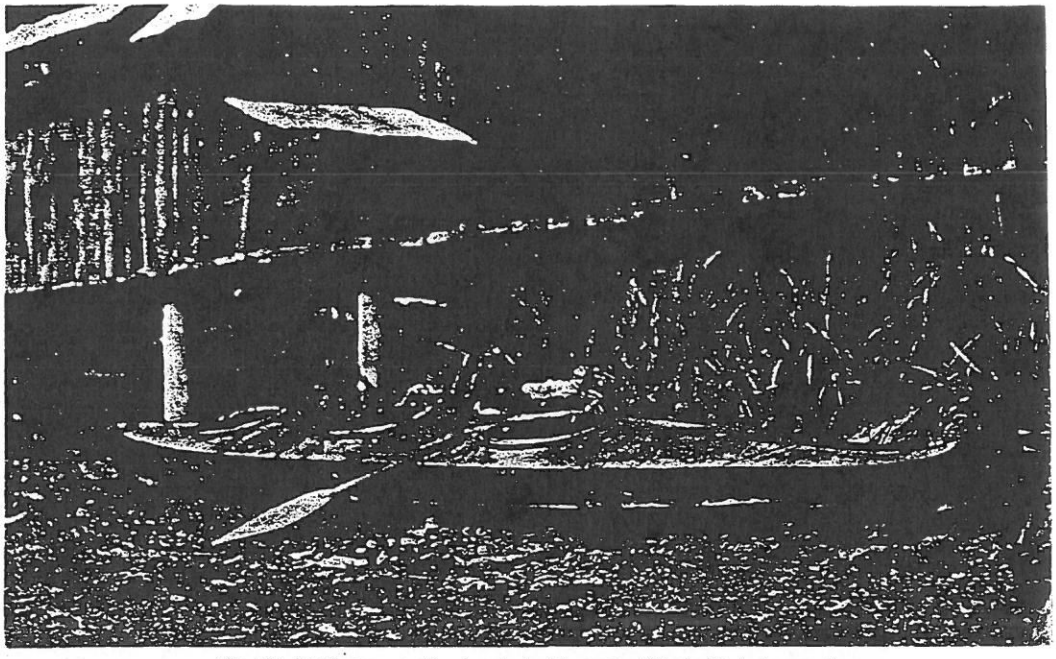


Fig. 18. Baidarka on the beach in Chenega. (Photo F. de Laguna).

COMMUNICATION

Baidarkas.

The kayak or, as it is here generally called, the baidarka (байдарка) is not only an important means of communication but also an indispensable part of the hunter's equipment. Beside the ordinary Eskimo type with a single man-hole there was also a two-hole type. The latter was the common hunting craft, whereas the one-hole baidarka served in porpoise hunting, fishing and travelling only. Makari was of opinion that also the baidarka with three holes, which is the only one in present use, antedated the coming of the Russians, but in this he was evidently mistaken (Fig. 18). Whereas both one- and two-hole craft were observed by all early explorers in Prince William Sound[1], no mention is ever made of the three-hole type. In fact, Lisiansky expressly states that they are a Russian invention made to the benefit of the Russian officials[2]. Makari believed that the Russians had made the Chugach build their baidarkas wider. Whether this be true or not it is difficult to decide at present. However, the early Kodiak baidarkas, which were closely related to those of the Chugach, were said to be twice as wide as the Aleut type and much shorter than this[3], so perhaps we should not pay too much attention to Makari's statement.

[1] Cook & King 1785, II 357, 371. Ellis 1782, I 241. Dixon 1789, 147. Portlock 1789, 207. Merck 1937, 133. Schelechof 1793 a, 208. Sauer 1802, 191. Sarytschew 1805–06, II 44.

[2] Lisiansky 1814, 211.

[3] Sarytschew 1805–06, II 36. Cf. also Langsdorff 1812, II 57.

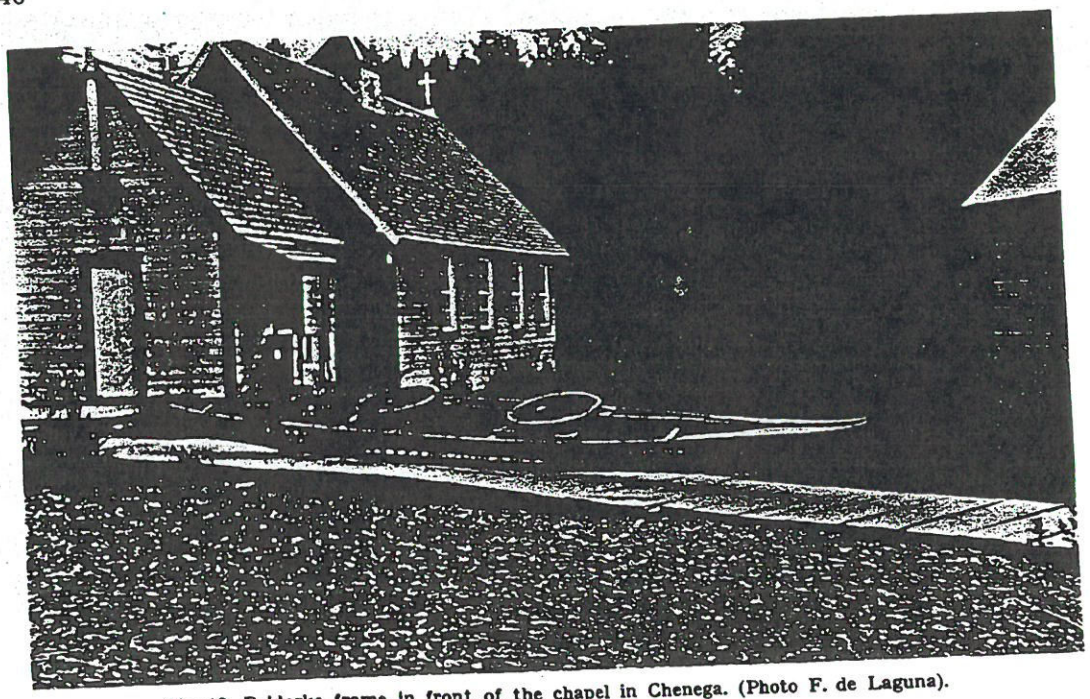


Fig. 19. Baidarka frame in front of the chapel in Chenega. (Photo F. de Laguna).

Moreover he said that the Chugach baidarka was "better" than that of Kodiak, but that may be just an expression of tribal pride.

At the present day only comparatively few baidarkas are left in the Sound. Still they had a renaissance in Chenega during the economic crisis about 1930, and I noticed here one specimen under construction. The price of a complete baidarka was $ 75, and even in former times but a few persons knew how to build them.

The frame of the baidarka (Fig. 19) was made of hemlock, whereas the stem and stern as well as the cross pieces were of spruce. The reason for the difference in material is this that hemlock does not crack or break so easily as spruce, which is more dry. The trees were felled with a stone adze—fire was not used—and the wood was split with stone adzes and wedges of tough, young spruce wood. The fashioning of the different parts was carried out with the crooked knife, and the lashings were of spruce root. The first parts to be made were the stem and stern pieces (Fig. 20). The former was bifurcated, forming an upper and a lower prow. After this the gunwales were fashioned, each about 10 cm wide, and then eight side streaks, four for each side, were made. The keelson was a similar, but somewhat heavier piece. No less than 45 ribs were morticed into the gunwales for a depth of 5 cm, after which two prow pieces were lashed to the upper prow with spruce roots. They were thin, flat pieces of wood bent up in front in continuation of the gunwales. For a two-hole baidarka the ridge pole for the deck was made in three sections. The coaming of the man-hole was a thin board. In front, on each side of the man-hole, there was a piece made of alder wood, on which the hands were placed when getting in or out of the baidarka. Outside the coaming there was another ring to which the sheathing of the boat was made fast with a string of whale sinews. Inside the baidarka two short vertical props were placed,

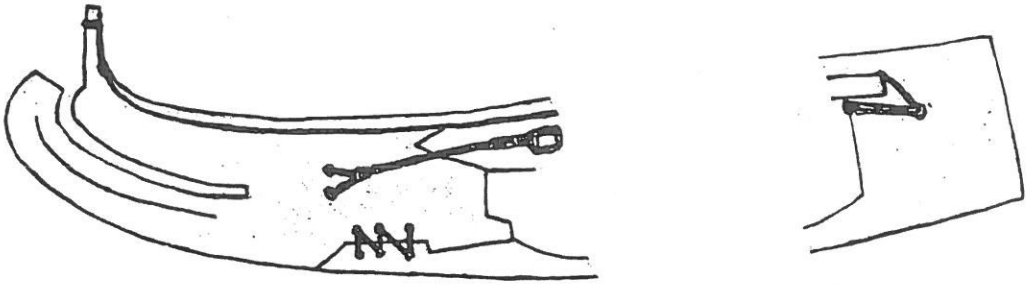


Fig. 20. Stem and stern pieces of baidarka.

one in front and the other one behind the man-hole. In the same places there were also cross pieces between the gunwales. Close to the stem and stern similar cross pieces were placed.

For the sheathing of a one-hole baidarka six large skins of spotted seal were necessary, for a two-hole baidarka nine, and for a three-hole twelve skins. Skins of young sea lions might also be used. The women sewed the skins together, then the men put them on the frame, and afterwards the women sewed the longitudinal seam along the deck. The seams were all double running stitches of which the innermost one was "blind", except the deck seam which was sewn with ordinary, single running stitches. Every year the skin had to be smeared with lukewarm oil, the best for this purpose being shark-liver oil. The seams were not especially smeared.

In front of each man-hole, but rather far apart, were two cross straps under which the hunting implements were placed. On the right side, in front of the foremost hole, was the harpoon with the head pointing aft and the butt of the shaft resting in the cleft between the prow pieces. The bow was also on the right side, but inside the harpoon. On the left were the throwing board and the seal club. On the right side in front of the second hole the lance was placed with the head pointing forward, and inside that another bow and a wooden quiver filled with arrows; the opening of the quiver was forward. On the left side was the whaling lance, also with the head pointing forward.

The following means of measuring when constructing a baidarka were obtained from Stepan, the only man in Chenega who was yet able to build one without assistance:

Length from stem piece to the first man-hole: one arm span.

Diameter of the first man-hole: one lower arm plus the hand.

Distance between the rims of the first and third man-hole: one arm span plus three finger widths plus one hand with outstretched thumb.

Distance from the edge of the rim of the third man-hole to stern: one arm span with the right fist closed.

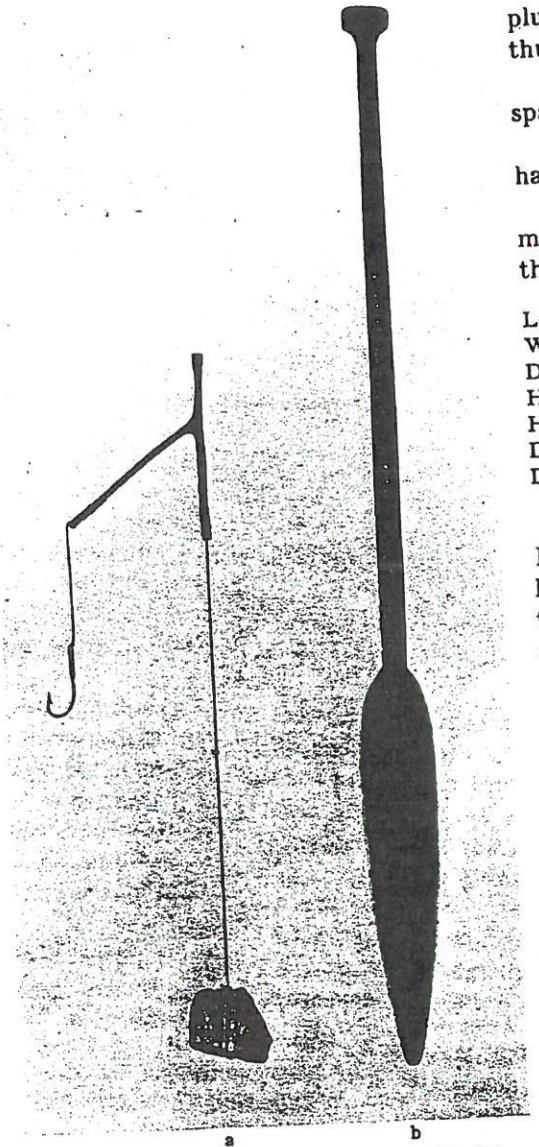
Length of gunwale: three arm spans plus one lower arm and hand plus one hand with outstretched fingers.

Width of baidarka at the middle: one arm including the hand.

Length of stem piece: one lower arm including the hand.

Width of lower prow: three to four fingers.

Width of upper prow: four finger widths.



a b

Fig. 21. Cod hook (a) and baidarka paddle (b). (Museum Copenhagen).

Length of cleft between prows: two thumbs plus two hand widths with outstretched thumbs.

Radius of curve of lower prow: one hand span (between thumb and middle finger).

Height of stern below the gunwale: one hand span.

In order to illustrate the size, the measurements of two baidarkas from Chenega, both three-hole specimens, are given below:

Length	630 cm	645 cm
Width	71 -	71 -
Diameter of man-hole	47 -	47 -
Height at stem	60 -	53 -
Height at stern	26 -	26 -
Distance stem-first hole	208 -	212 -
Distance stern-third hole	128 -	125 -

A one-bladed paddle was generally used. It had a spear-shaped blade and a crutch handle at the end of the shaft. The paddles of the two baidarkas mentioned above measured as follows:

Total length	155 cm	160 cm
Length of blade	80 -	81 -
Width of blade	13 -	12 -

A third paddle, now in the Copenhagen museum (P 537) has a blade painted green and now much worn at the edges; length of shaft 51 cm; blade 51 by 10 cm (Fig. 21 b).

The paddler was kneeling and took two or three strokes on one side, then two or three on the other. Although the baidarka, as compared with the Greenland kayak, was a rather clumsy craft and the man-holes of considerable width, a skilled paddler wearing the sleeveless gutskin jacket tied around the coaming of the hole and below his armpits (cf. p. 66) was nevertheless able to turn over in it. If a single man turned over in a two- or three-hole baidarka, the empty holes were covered up with gutskin. The water that by and by penetrates into the interior of the boat is sucked up in a sort of siphon; then the lower hole is closed with a finger and the water drained out. The siphon is spindle-shaped and made of one piece of wood split lengthwise, hollowed out and again lashed together. A specimen from Chenega, now in the National Museum of Denmark (P 538), is 46 cm long and has a maximum diameter of 17.8 cm (Fig. 16 c).

On journeys and hunting excursions sleeping blankets were carried inside the middle of the baidarka, while food and bags with spare spear-heads were stored away aft. Fred Allen said that inflated seal and bear bladders were carried in the baidarkas as life-preservers, but the correctness of this statement seems doubtful. When crossing the ice the baidarka was carried on the shoulders, and in the village it was placed on a wooden scaffold with the bottom upwards, or inside the house. In the winter, ice is scraped from the deck with the paddle; no special kayak scraper is known. In very cold weather the skin cover is liable to freeze and crack at the seams and then may break. Not a few men have drowned that way. If they can afford it, the modern Chugach therefore prefer to use gas boats in the winter.

Skin Boats and Dug-outs.

The typical open skin boat or umiaq of the Eskimo, the baidar (байдара) of the Russians, has now entirely disappeared from Prince William Sound. It was of considerable size, holding sometimes more than twenty people. One man steered, and three or four—according to Ma Tiedemann even six—men were paddling on each side. Fred Allen said that the large war baidars were able to carry as many as twenty or thirty men. The paddle had a single blade and differed from the Nootka type in not having a long point[1]. In later times they had square sails of blankets, with one boom at the top and another one across the bottom. Makari did not know what the sail was made of originally, but denied that it was of gutskin as in the eastern Arctic and at Bering Strait. The probability is, therefore, that the material was some sort of matting. Sails of this kind occurred both on Kodiak and in the Bering Sea region[2].

When building a baidar the Chugach would make the stem first and then proceed to the gunwales, thwarts, ribs, keelson, side laths, etc. There were six side laths and ten ribs. The latter were made in three pieces, probably one bottom piece and two upstanders. It seems that the gunwales projected somewhat both before and aft. The stem piece was made of a naturally curved piece of wood, whereas the stern was straight. This detail is confirmed by Cook, who tells us that the Chugach baidar resembled the Greenland umiaq "with no other difference than in the form of the head and stern; particularly of the first, which bears resemblance to the head of a whale"[3]. Merck noticed "*grosse Lederboote*" in Prince William Sound, but gives no description of them[4]. While the length of the baidar varied somewhat according to the wish of the builder, the width was fairly fixed, *i. e.* about 150 cm at the bottom and 215 cm at the top. For the sheathing twenty large seal skins were needed.

Makari mentioned another kind of boat that was called aŋiʌq and was used by the Russians. It had two masts, and the bottom was made of a large sea-lion skin. The word aŋiʌq is the ordinary name of the baidar on Kodiak[5], so it may be surmised that at Prince Williams Sound it refers to the—perhaps slightly modified—Kodiak type of skin boat introduced by the Russians.

Beside the skin boats the Chugach also had wooden dug-outs. They were observed by Merck[6] and are likewise mentioned in the traditions (cf. p. 110). Moreover, several

[1] Ellis 1782, II 257.
[2] Holmberg 1856, 380. Nelson 1899, 217.
[3] Cook & King 1785, II 371. Cf. Ellis 1782, II 237.
[4] Merck 1937, 133.
[5] Merck 1937, 129. Holmberg 1856, 380.
[6] Merck 1937, 133.

specimens were found in the Palutat cave and will be described in the archeological report by Dr. de Laguna. The shape is similar to that of the Eyak canoe[1], and there can be no doubt that the latter was the prototype of the Eskimo craft. A model of a wooden canoe from Chenega in the Berlin museum, IV A 6255, is shaped more like the Tlingit type with strongly projecting stem and stern[2]. On the side is the figure of a whale with a high dorsal fin painted in red and black, together with some incomprehensible scrolls reminiscent of a misunderstood Tlingit design. Ma Tiedemann mentioned a "sealskin" canoe called ARakvIq; apparently this word is identical with the Eyak term for a small dug-out, ə̀x̣ə́ki or àkák!ⁱ[3], and may be the Eskimo appelation for the dug-out. Sealskin canoes are otherwise unknown.

Land Transportation.

Needless to say, a geographical environment like that of the Chugach territory is very badly adapted to the use of the dog sledge. There is no firm winter ice, and the heavily forested mountains make driving extremely difficult. The early explorers never mention dog sledges from Prince William Sound. Nevertheless we were informed that the Chugach had a sort of toboggan for instance for hauling home trees. It was made of a single wooden plank bent up in front and completely shod with baleen. Along the sides were short wooden uprights connected along the top with the lines that kept the front part from becoming unbent. This railing prevented the load from slipping off. The sledge was drawn by three or four dogs hitched tandem, with a trace on both sides. The harness was made of sea-lion skin and had one loop for the neck and one for each foreleg. No whip was used. The dog signals were "kiˈta, kiˈta", meaning "go ahead", and "tʊˈa", properly "enough", but here used as a signal to halt. For going to the right or to the left the driver only pointed in the direction with his arm.

Dogs were also employed as pack animals, and in that case they carried a skin bag on each side. Their principal use was, however, for hunting. In the tale of the Woman who Married a Dog (p. 152) it is told that the brothers were unable to hunt because they had no dog. We have no specific information of the aboriginal type of dogs. Those seen in the Sound at the present day look small and rather underfed and are probably no longer of true native breed, although Dr. George G. Goodwin, who has examined the dog bones from our excavations, found a close resemblance between a dog skull from the Palugvik shell heap and a dog photographed at Chenega. It may be surmised that the aboriginal dogs looked something like those of the Eyak that were described as being about the same size as the Eskimo "husky", with pointed prick ears and a bushy tail[4].

The dogs had names and might be named for a dead dog, but there was no fixed rule. Examples of dog names are: qutikˑa, "the one that walks alone"; RAqArcikɬt, "the blister"; muxniaun, "the one that wants to suckle"; citaŋukʃilaŋɔq, "the one that has never been towed", referring to the fact that the owner had killed a bear which he towed home in his baidarka; nipske, "the one that is welded together", because the owner was a smith. If a dog bit a person it was never punished, for otherwise the wound would not heal, but

[1] Birket-Smith & de Laguna 1938, 45 ff.
[2] Cf. Niblack 1890, pl. XXXIII, fig. 170, but without stem figures.
[3] Birket-Smith & de Laguna 1938, 550. The phonetic system there differs somewhat from that employed in the Eskimo words; the x̣ corresponds to our R.
[4] Birket-Smith & de Laguna 1938, 57.

HABITATION

Villages.

The Chugach villages were always situated close to the sea. The old site of Palugvik, where the principal excavations of our expedition took place, shows several features characteristic of the topographical situation of the native settlements in Prince William Sound. It stands on a narrow neck of land uniting what was originally an isolated rock with the southern shore of Hawkins Island. A small waterfall provides plenty of fresh water, at ebb tide it was possible to gather mollusks right in front of the houses, and owing to the situation between two bays it was always possible to land on the lee side in case of storm and to keep a look-out for approaching enemies (Fig. 6).

Other sites are described in the archeological report of Dr. de Laguna, and a list of former villages was given on an earlier occasion (p. 14 f), but in all cases easy access to food and drinking water as well as good conditions for landing and look-out seem to be the main features taken into account. Only in the case of temporary camps near salmon streams and the like, might strategic considerations be ignored. We find the same principles for selecting the sites at Cook Inlet, on Kodiak and the Aleutian Islands, at Bering Strait and even in Southwest Greenland, although in the latter region, in accordance with the more peaceful character of the inhabitants, the strategical situation played a less important role[1].

At present Chenega is the only village in Prince William Sound exclusively inhabited by Eskimo. It is situated on the southern shore of the small Chenega Island, and its correct name is Ingim-atya (ŋim-aca), meaning "underneath the mountain", thus referring to a steep, forest-clad slope rising immediately behind the village. In front there are rounded, spruce-covered islands, and between them it is possible to obtain a distant glimpse of the wild, snowy mountains of the Kenai Peninsula. Several glaciers come down to the sea in the small fjords of the peninsula, and "calf-ice" or small icebergs are sometimes seen near the village (Fig. 22).

Chenega itself gives an impression that is anything but Eskimo to one accustomed to the settlements of Greenland or the snow-hut camps of Arctic Canada. The houses are all built of unpainted wooden planks and provided with small, additional structures used as bath rooms. They are nearly all placed in a row along a narrow, wooden platform which follows the beach as in the villages of the Northwest Coast Indians. Between the houses rises a small Orthodox chapel where service is held every Sunday by a native catechist, and back of it there is a nearly overgrown brook, across which a small, open shed lined with oil cloth and linoleum has been erected. On the back wall are all sorts of tinsel and a colour print of Christ and the Samaritan Woman, and through a hole in

[1] de Laguna 1934, 162 f. Holmberg 1856, 378. Jochelson 1925, 23. Nelson 1899, 241 f. Birket-Smith 1924, 129.

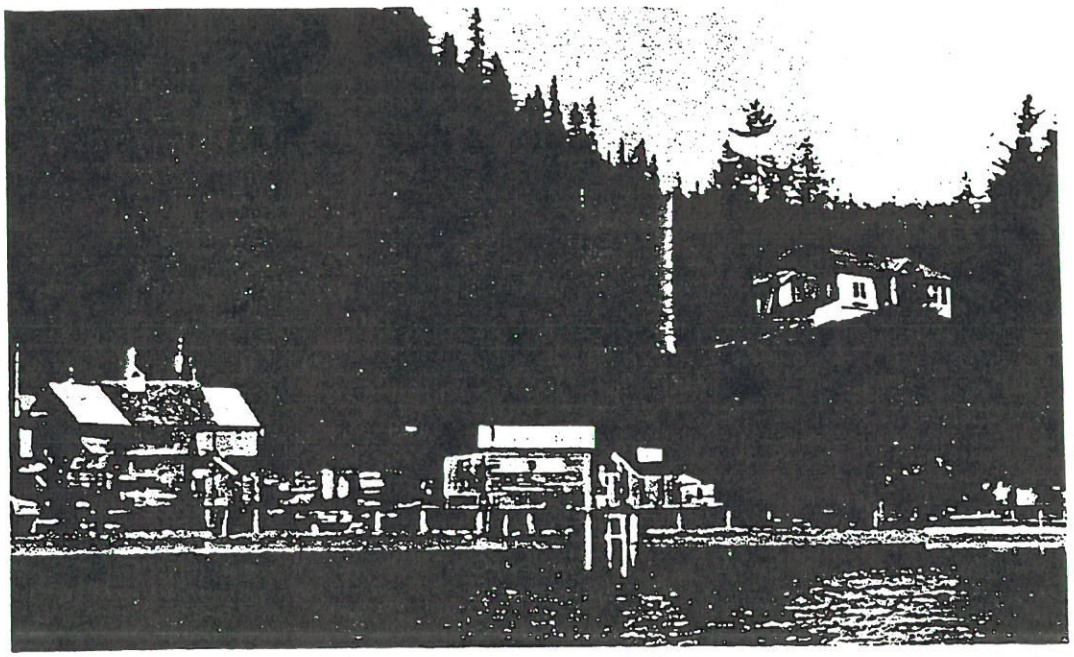


Fig. 22. Chenega seen from the sea. The chapel is seen to the left, the school on top of the hill to the right. (Photo F. de Laguna).

the floor all the water is obtained for the village. Were it not for the picture and the inscriptions "Keep Clean" and "Keep water clean all time" the purpose of the shed might very easily be misunderstood. In winter the approach to the shed is covered with spruce boughs, forming a tunnel, to keep the snow from blocking it. The American school building stands on top of a low hill a little apart from the other houses. The population of the village amounts to about 90 persons in all.

Houses.

The Chugach had evidently more than one type of dwelling, but unfortunately the archeological evidence and the references of the early travellers are very meagre. Portlock states that the winter houses were ten by eight feet in size, with a height of four to six feet, and built with thick planks made by means of wedges of wood or stone, the crevasses being filled up with dry moss; he even mentions one plank twenty or twenty-five feet long[1]. Merck has only the laconic remark: "*Winters wohnen sie in Holzhäusern*"[2], and Petroff's information is too late to be of great use in this context[3]. In the summer, lighter structures were erected on the fishing and hunting camps. Portlock speaks of "temporary huts, composed of a few sticks and a little bark"[4]. Sarychev says that under such circumstances the Chugach lived under turned-over skin boats or in wooden huts, a statement corresponding nearly to that of Merck, apart from the addition of the latter author that the planks were made of sweet-smelling wood and taken along on the journeys[5].

[1] Portlock 1789, 253.
[2] Merck 1937, 133.
[3] Petroff 1884, 145.
[4] Portlock 1789, 239, cf. 253.
[5] Sarytschew 1805–06, II 49. Merck 1937, 133.

A temporary shelter might also be made by digging a pit into the ground and covering it with skins.

The information we were able to obtain is to the following effect. There were two types of ordinary dwellings, the smoke house and the log house; however, in spite of its name, ənа or n·a, which is pure Eskimo (identical with Greenland *ine*, a place or a dwelling), the latter was expressly stated not to have been used till after the arrival of the Russians, and this is corroborated by the details given of its construction (cf. p. 56). Neither conical nor dome-shaped huts were known, but on hunting excursions a single or double lean-to might be erected, consisting of two upright poles with one or two sloping walls of bark or branches. Stepan knew the underground houses to the westward of the Sound, but declared that they had never been used here, whereas Fred Allen believed that the early dwellings in the Sound were dug more than halfway into the ground.

The smoke house (cf. fig. 23) was rectangular and large enough to accomodate several families. At each end there were two corner posts and two middle posts higher than the corner posts. All of them were dug into the ground. There were no posts along the walls, which were made of planks placed vertically. They had bark on the outside, but it is not clear whether the bark side of the planks or separate slabs of bark were meant. Long beams were placed on the corner and the middle posts running from the front to the back of the house. The roof was made of planks running up and down and sloping slightly towards the eaves. Makari said that the roof was gabled as in the Eyak houses, but as a median ridge pole was lacking it is, perhaps, more likely that the middle part of the roof was more or less flat as in the houses of the Tanaina, Tlingit, Haida, and Kwakiutl[1]. The roof was covered with spruce or yellow-cedar bark, and stones were put on top, probably to keep the bark slabs in place. An opening about 1 m square or more, depending on the size of the house, was left open in the middle of the roof as a smoke hole. This was not only the sole way of escape for the smoke, but also the only opening through which light might enter the house. A movable screen of boards could be set up at the smoke hole to shelter it from the wind.

Between the middle posts both at the front and the back of the house there was a round door, and on each side of the door a small additional structure used as a bathroom, with entrance from the main room. The bathrooms were covered outside with earth dug up by means of a digging stick about 1 m long, and pulverized with a shovel. Between the two front bathrooms a small shed roof formed a sort of porch, but there was no entrance tunnel. Tunnels were found at Anchorage and at Iliamna Lake. On entering the house the visitor had in front of him the fire place, which was built in the middle of the main room with a log placed longitudinally on either side. Over the fire place were racks for drying fish. The floor was not excavated, but it seems probable that the fire place was a depression filled with gravel like that of the Eyak houses. Inside the main room were separate sleeping rooms along both sides, though they did not reach quite to the ends of the house in order to leave sufficient space for entering the bathrooms. The sleeping rooms were so high that a person could stand upright within them. They had wooden walls and flat roofs solid enough to permit provisions of dried meat and fish, etc., to be piled on top of them. The sleeping rooms were entered through a round hole in the front wall, and each of them had a small, square window covered with a gutskin pane. Inside, grass was put on the floor. The bedding, consisting of mountain-goat or bear skins, was rolled up during the day. Blankets were of cormorant skins.

[1] Birket-Smith & de Laguna 1938, 367.

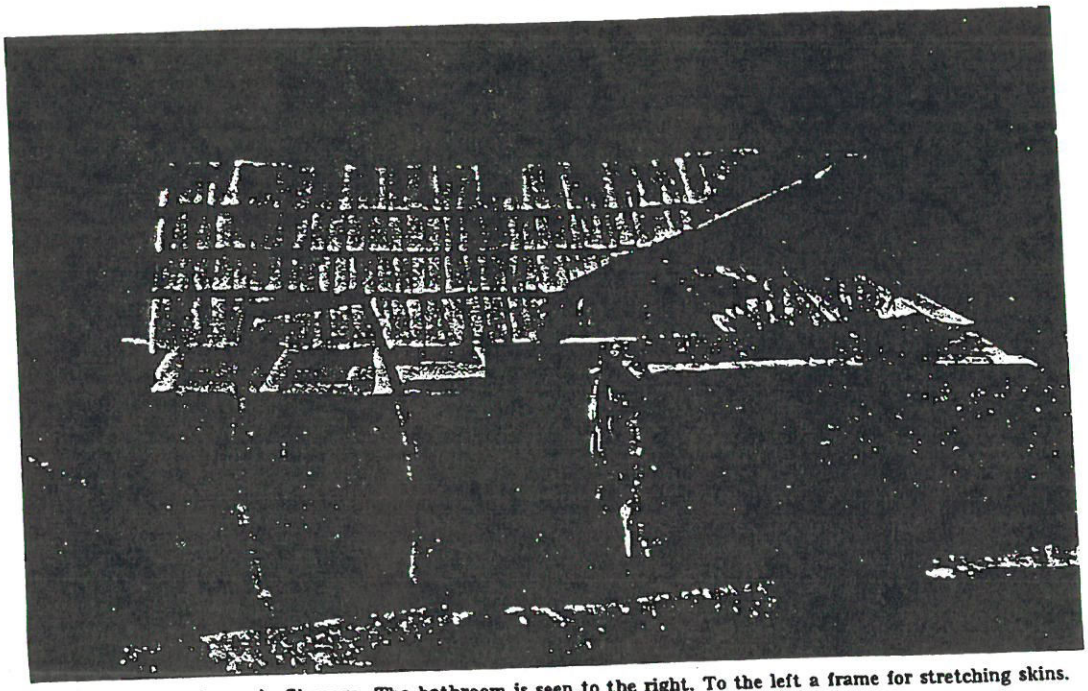


Fig. 23. Modern house in Chenega. The bathroom is seen to the right. To the left a frame for stretching skins. (Photo F. de Laguna).

In the summer and autumn the smoke house was the only dwelling, and even in winter when—in later times—people slept and ate in the log house, they preferred to cook and spend most of their time in the smoke house. All indoor work seems to have been performed there, and even the baidarkas were taken into the house and hung up within it. It was said that at the present day single families build only half a smoke house with an asymmetrical roof, but we were never able to obtain any confirmation of this statement.

Our information regarding the arrangement of the families inhabiting the smoke house is rather confused. When a young man wanted to build a house of this kind, he was usually assisted by his (maternal?) uncle, but he might also get help from his father or his father-in-law. Sometimes two or more friends united in erecting a smoke house, in which case the families afterwards lived there together with their married children. Not more than four families inhabited the same house, because it could not be divided into more than four parts, probably referring to the fact that there were only four bathrooms, each family thus occupying one half or one quarter of the house, including a bathroom. This statement was, however, contradicted on another occasion, when we were told that six or even twelve (?) families sometimes lived in the same house. It may be that more families used to live in the smoke houses at the summer camps than in the winter smoke houses, but this is far from being clear and, perhaps, not even very probable.

An unmarried girl slept with her parents so that the mother could watch her. Infants likewise slept together with their parents of course, but when they grew older, boys and girls of each family had separate sleeping rooms. Sometimes the children of one family would spend the night in the room of another family's children of the same sex, but it

frequently happened that boys sneaked into the girls' rooms at night. Guests slept in the bathroom of the village chief, but we were also told that they might sleep in the main room between the fire and the sleeping rooms. Perhaps the former statement refers to visiting families and the latter to single travellers. One (?) of the small rooms was used as a workshop for the women.

As mentioned before, the log house was a late type that was to be found only in the winter villages. It had no corner posts, but the walls were of horizontally laid logs dovetailed together and chinked with moss. Stepan asserted that the logs were lashed together with spruce roots before nails were in use, but if this piece of information is at all reliable it must refer to the planks of the smoke house, for one thing because nails seem to be unnecessary when dovetailing is employed, and second because nails must have been available at the same time when the log house was introduced. On the two long sides of the log house there was a large window, 3 by 4 m, and covered with gutskin; that the size of these windows is greatly exaggerated seems to be beyond any doubt. The roof was of boards, with bark and grass (not sods) on the top, held down by longitudinally placed poles lashed on by means of rawhide lines and spruce roots. The triangular gable space between the horizontal wall logs and the roof was filled with vertically placed boards covered with bark and grass in the same way as the roof. At the door there was a lean-to shed open at the front, where a mat was hung. The doorway itself was (also?) closed with a grass mat. Inside the house there was only one room with a floor of planks. People slept on the floor, and there was no fire place, but the house was heated with hot stones when necessary. The walls were covered with mats of variously coloured straw, woven with feathers.

In the Jacobsen collection are two sleeping mats from Chenega, IV A 6262 and 6263. They are made of twined weave with three longitudinal and two transversal strands. In the latter specimen small tufts of dark bird's down and of red worsted alternate in the stripes, whereas in the former there are only some remnants of wollen material left (Fig. 24). Sizes 156 by 77 and 192 by 74 cm respectively.

Household Utensils.

Originally, fire was made by a drill, whereas the use of pyrites for this purpose was said to have come from the Russians; there is archeological evidence, however, that this statement is not correct. Unfortunately Meares, who mentions the fire drill[1], does not give any description of it. Makari said it was a cord drill, but on another occasion he told us that the cord drill as a tool was introduced by the Russians, whereas the Chugach formerly used a bow drill. On this point Makari's information is hardly correct, and it seems probable that the cord drill was well known of old. Makari's brother, Paul Eliah, was still able to make a fire making apparatus. It was a cord drill with a hearth of drift wood (yellow cedar) from Egg Island, a drill of yellow cedar, and a brace consisting of a round piece of wood put against the chest. Great care was taken to keep the drill dry. Fred Allen, on the other hand, described the fire-making apparatus as a bow drill. Perhaps both types occurred. Eagle wings were used as fire fans and also as brooms.

The Chugach houses were heated by means of open fires, as indeed were all Eskimo dwellings in southern Alaska. For this reason the lamp was small compared to that of

[1] Meares 1790. xxxv.

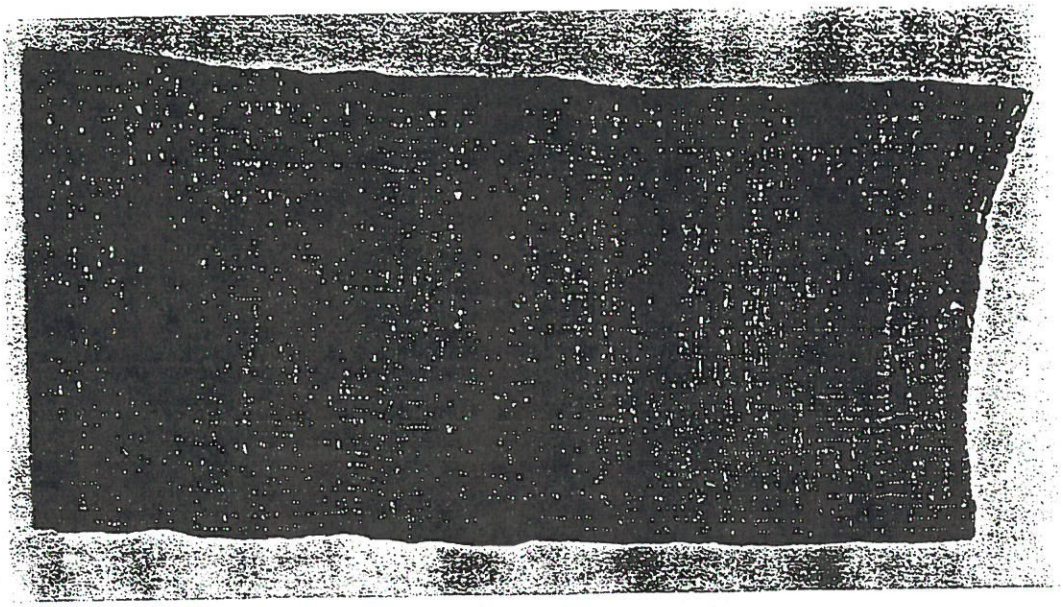


Fig. 24. Sleeping mat. (Museum Berlin).

the Arctic tribes and served for illumination only. It was a rather shallow and thick-walled, oval bowl made of hard, crystalline rock. Wicks were of cedar bark and moss. In the *Museum für Völkerkunde* of Berlin there are six lamps from Chenega, IV A 6391–96, with lengths varying from 18.5 to 31 cm, widths from 26 to 13.8 cm. On the outer side the bottom is rounded, with a low, more or less vertical wall. The inner side forms a shallow reservoir with steep sides except at the lip where the wick was placed. One lamp, IV A 6394, is somewhat irregular, with four slightly protruding lugs or knobs suggesting the legs of an animal, the head of which is formed by the slightly projecting lip. The lamp is, however, so crude that it is very difficult to decide whether the shape is intentional. A lamp now in the National Museum in Copenhagen (P 546) is oval, with a very thick bottom, and made of a dark rock. At one end there is a small depression for the wick (Fig. 25). It was found on Nunaktuk Island by Makari who had used it himself afterwards.

Painted wooden boxes were used for winter provisions. The sides were made of a single, bent plank, and the box provided with a lid. The rim (of the lid or the sides?) was scalloped. In the Berlin museum there is a small box, IV A 6211, from Chenega (Fig. 26 b) It differs from the type described in having each side, which is slightly convex, pegged separately to the bottom. The lid is fastened with a sinew string through the lid and two sides. Size 10.3 by 10.5 by 10 cm. For putting up fish with seal oil they also had receptacles hollowed out of a wooden block by means of fire. Food might

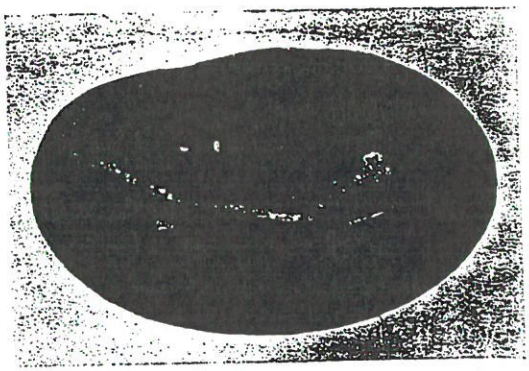
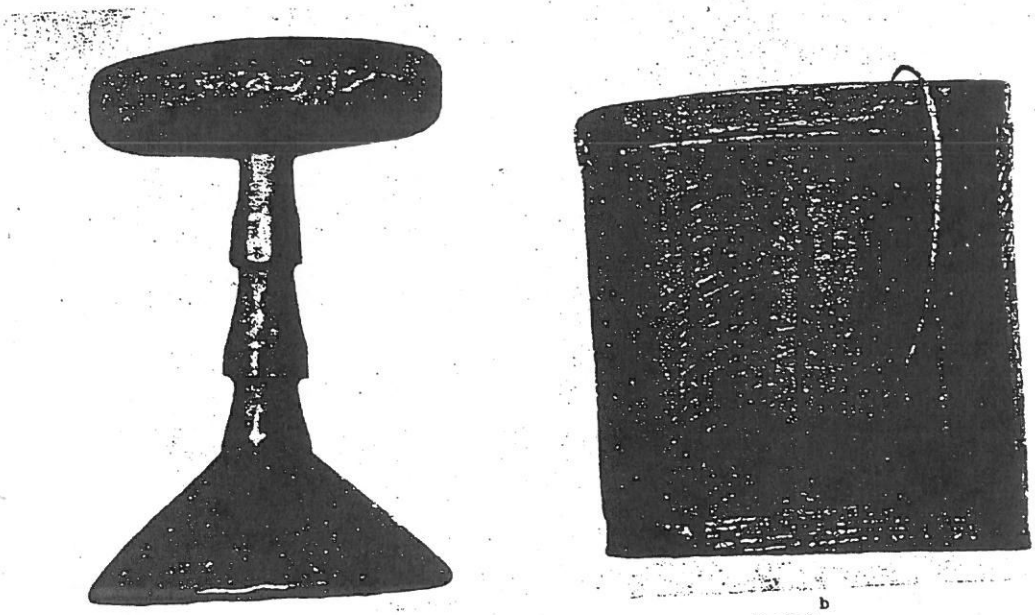


Fig. 25. Blubber lamp. (Museum Copenhagen).



a b

Fig. 26. Wooden pounder (a) and box (b) (Museum Berlin).

likewise be stored away in a round wooden container. The side was a thin board, bent round and sewn; near the lower edge there was a groove on the inside, into which the bottom was set and pegged in[1]. The lid was flat and fastened with a sinew string. Similar vessels, with one or more handles of spruce roots according to the size, were used for picking berries. Others, either round or square, were water pails, urine tubs, or night vessels. The latter, as also the containers used for carrying food or water in the baidarkas, were provided with lids. Water bottles of skin were never used for travelling. In the Berlin museum there is a water pail from Chenega, IV A 6208. It has a diameter of 31 cm and a height of 14 cm. On the outer side there is an incised design shown on the figure (Fig. 27).

Baskets were to be found among the Chugach to a greater extent than among most other Eskimo. Not only were baskets used for holding various minor articles, but also for keeping water and for stone boiling[2]. Some were made of yellow-cedar bark folded together, whereas others and probably the most common, were woven of spruce roots. Besides the cooking and water baskets there was a small basketry pail without a handle which was used as a dipper both when fetching water and within the house. Sewing implements were also kept in a small basket; it was cylindrical and had a lid with a knob on the top, but there was nothing within the

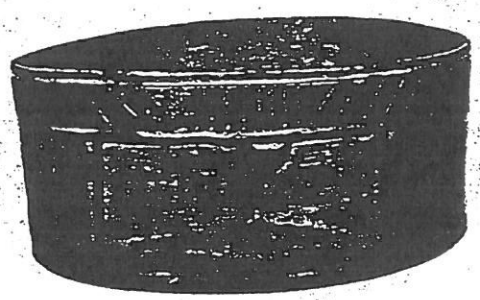
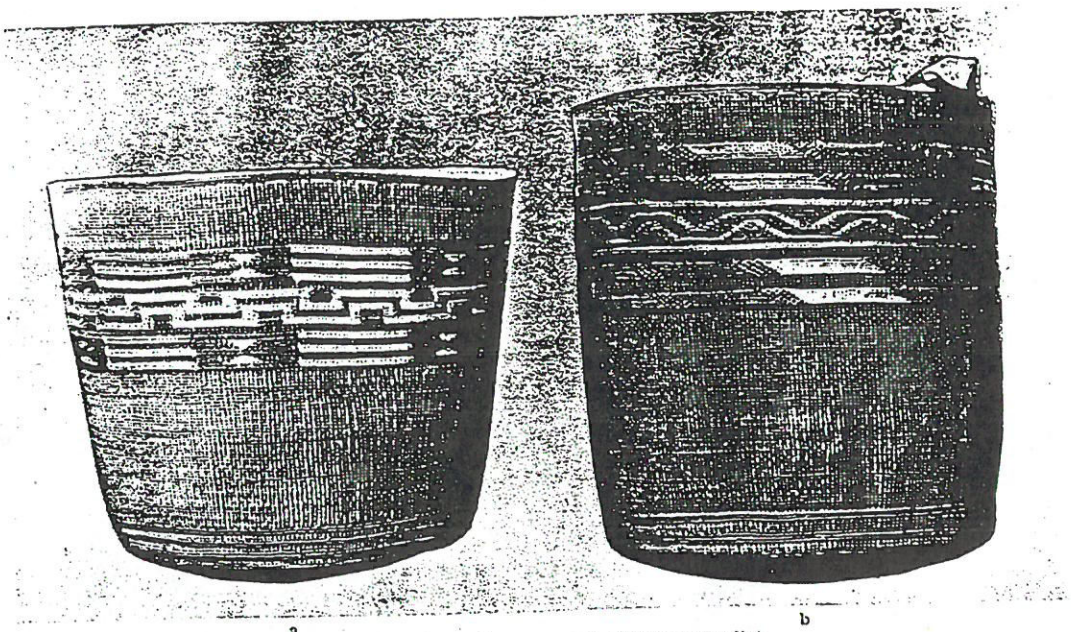


Fig. 27. Water pail. (Museum Berlin).

[1] Cf. Cook & King 1785, II 372.

[2] Cf. Meares 1790, xxxv.



a b

Fig. 28. Baskets of spruce root. (Museum Berlin).

knob to rattle as in certain Northwest Coast Indian basket lids. A big, waterproof basket with a lid, intended for carrying with the pack strap, was used for storing clothes and bedding when travelling. Its name is the same as that at present used for a "war" or "duffel" bag.

Five cylindrical or nearly cylindrical baskets from Chenega are included in the Jacobsen collection of the *Museum für Völkerkunde* in Berlin, IV A 6175–79. They are made of spruce roots and twined. With one exception (IV A 6176) there are concentric reinforcements in the bottom, and they have all, except IV A 6179, two or three horizontal reinforcements of the sides near the bottom. The height varies between 26.5 and 33 cm, the diameter between 30 and 36 cm. The decoration appears from the illustration (Fig. 28). The colour schemes of the designs are as follows: IV A 6175 red, yellow, brown, and gray; IV A 6176 yellow, brown, gray, and red; IV A 6177 yellow and brown; IV A 6178 yellow, brown, and gray, two skin straps at the upper rim; IV A 6179 yellow and brown. Of less interest are two other baskets imitating ordinary European bottles, IV A 6269 and IV A 6286. Both of them come from Nuchek. They are produced in the same twined technique as the preceding specimens and provided with lids. The designs are yellow, red, and gray, on the former specimen in the shape of oblique triangle bands, on the latter bands consisting of chevrons, oblique stripes and ⊥ figures. Height 26 cm. A modern basket of much coarser workmanship was acquired at Chenega for the Copenhagen museum (P 547, Fig. 29). It is cylindrical and has a lid with a broad and flat knob at the top. On the sides are horizontal, red and green stripes with purple and green squares in the spaces between, and on the lid red and green concentric circles. Height 16 cm, diameter 14 cm.

Food was served in wooden bowls. They were sometimes painted, and Makari said that at weddings carvings representing seals, sea lions or sea otters were glued on to them.

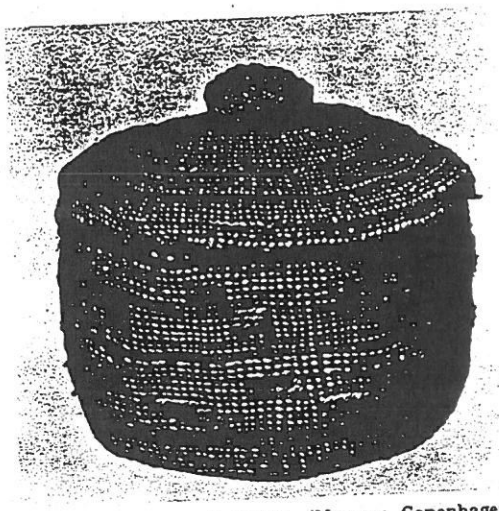


Fig. 29. Spruce root basket. (Museum Copenhagen).

It seems more probable, however, that the whole vessel was carved in animal shape, as is the case with some of the bowls mentioned below. Cook describes them as being round or oval, while others were "somewhat resembling a large oval butter-boat, without a handle, but more shallow, made from a piece of wood, or horny substance [probably mountain-goat horn]. These last were sometimes neatly carved"[1].

It is fortunate that several specimens of eating bowls are preserved in the Jacobsen collection. The greater part are round and stated to have been used by men. IV A 6290, from Nuchek, is a typical example, 6 cm high and 24 cm in diameter (Fig. 30c). A crack in the side has been repaired by means of a strip of baleen while it was still in use. In the rim are inserted eight *Dentalium* shells with a white bead on either side. On the inside are concentric bands consisting of grooves arranged three, two, three, and two together, with white beads between the bands. IV A 6196, from Chenega, is another eating bowl for men. The outside bottom is flattened. Inside there are bands consisting of three and four grooves respectively. The rim, bottom, and uppermost groove are painted red, and inlaid white beads form short radial stripes. Height 6.6 cm, diameter 26 cm. In another specimen of the same type and likewise from Chenega (IV A 6198) each band consists of three grooves only, and the beads on the rim are arranged five by five, thus forming small crosses ∘⁘∘. On IV A 6199, also from Chenega, the decoration is somewhat more elaborate. At the rim there are concentric grooves with incised lines arranged in vertical bands, the upper parts of which have four beads inserted, whereas the middle parts are painted red, and the spaces between the lower parts are painted in the same manner. The rim of the bowl has been repaired by inserting a triangular piece of wood and lashing it with a strip of spruce root. IV A 6200, 6201, and 6203 are other red-painted bowls from Chenega, the last mentioned specimen, however, with unpainted, concentric grooves on the inside. IV A 6204, 6205, 6195 and 6197 from Chenega, and IV A 6294 from Nuchek, are also round bowls decorated with concentric grooves and, in some cases, with inlaid beads, but here the

[1] Cook & King 1785, II 372.

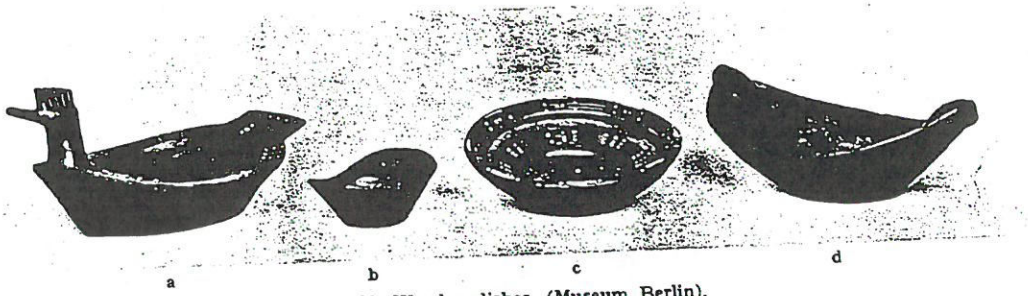


Fig. 30. Wooden dishes. (Museum Berlin).

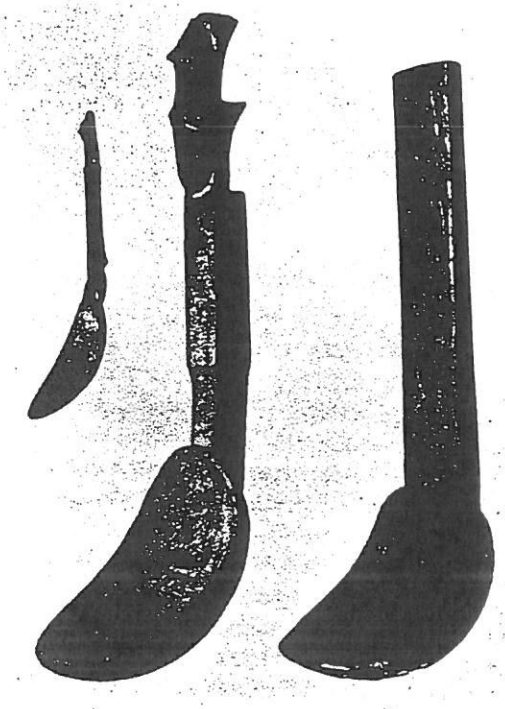
concave rims are sloping towards the bottom of the bowl. IV A 6210 is irregular in shape and the rim somewhat damaged; this is also a Chenega specimen.

Beside these rather simple bowls there are others of more elaborate workmanship. Thus IV A 6202, a woman's eating bowl from Chenega, is oval with raised ends, convex rims, and a flat bottom like the "boat-shaped" bowls from the Northwest Coast (Fig. 30b); size 16 by 10 by 6.5 cm. This type is closely related to two eating bowls for men, IV A 6291 (Fig. 30d) and 6292, from Nuchek, the raised ends of which are carved like the head and the hind flippers and tail of a seal. In the latter specimen there is an extra, red-painted depression in the bottom, and the rim is decorated with white beads. Sizes 34 by 25.5 by 13 cm and 24 by 16 by 7 cm respectively. The most highly developed type is carved in the shape of a bird and represented by two specimens, IV A 6206 (Fig. 30a) and 6193, from Chenega and Nuchek respectively. The crest on the bird's head seen on the Chenega bowl is missing on the specimen from Nuchek, and the beak is shorter; besides, a piece of the tail has been broken off and is lashed on by means of a strip of spruce root. The broad rim of the bowl and the tail are decorated with grooves and inlaid beads. Bowls 31.5 by 25 cm and 33 by 23.5 cm; heights at head 16.4 and 15 cm.

Pottery vessels were definitely stated to be unknown, and no pot sherds were found during our excavations.

There is no information about meat sticks or skewers, but it can hardly be doubted that some implement or other was used for serving hot meat on the eating bowls. On the other hand we were expressly told that hooks for picking up blubber from the caches were not known. Marrow bones were crushed with a stone, and the marrow was extracted by means of a narrow and pointed bone tool. Sucking tubes were not mentioned except the siphon employed for emptying the baidarka. For cutting up meat there were knives with a single-edged copper (or probably more often slate) blade. Berries were crushed by means of a wooden pounder such as IV A 6222 from Chenega in the Berlin museum (Fig. 26a). The lower part is shaped like a cone with a diameter of 8.7 cm; the upper part consists of a notched, vertical middle piece with a cross handle. Total height 13 cm.

Soup ladles were made of alder or yellow cedar. They had a round bowl and a long, curved handle. Two ladles from Chenega are included in the Jacobsen collection. One, IV A 6214, has an oval bowl, slightly broader in front than at the rear, and a round, upward curving handle (Fig. 10a). Both the handle and the rearmost half of the bowl are painted red, whereas on the other half there are only short, radial stripes of the same colour along the edge. Total length 35.5 cm, bowl 15.5 by 13.5 cm. The bowl of IV A 6215 is flat and the handle is rectangular in cross section. Total length 34.5 cm, bowl 12.6 by 8.8 cm. Two



a b c

Fig. 31. Wooden spoon and ladles. (Museum Copenhagen).

ladles from the same place are now in the National Museum of Denmark. On P 533 the front edge of the bowl is straight with round corners, the handle is flat and broad. Total length 38.5 cm, width of bowl 11.3 cm. P 534 has an oval bowl. The foremost part of the handle is round; on the hindmost part there are two broad notches, and on the upper side there is a crouching animal roughly resembling a bear, but with a broad tail on which a chevron design is deeply incised. Length 43.5 cm, width of bowl 11.5 cm (fig. 31).

Spoons were made of wood or mountain-goat horn with handles carved to represent birds or animals, and sometimes painted. Among several spoons from Chenega in the Jacobsen collection five (IV A 6216–6220) are made of goat horn with handles carved in a rather crude Northwest Coast style (Fig. 32). The lengths vary from 13.3 to 15 cm, with bowl widths from 4.6 to 5.8 cm. A simple spoon, IV A 6221, seems to be of ordinary ox horn and has an oval bowl tapering gradually towards the flat handle; length 12.6 cm. IV A 6213 is a wooden spoon with a slightly flattened handle terminating in a flat hook; length 17.5 cm. In the National Museum there is a wooden spoon (P 1518 a), the handle of which terminates in a bear's head; the edges of the bowl and the upper side of the handle are painted red (Fig. 31 a); length 20.5 cm.

Unfortunately no skin bags from the Chugach seem to have been preserved, but it may be imagined that they were similar to those of the Kodiak Eskimo, as suggested by Cook's reference to square gutskin bags decorated with red feathers in the seams[1].

[1] Cook & King 1785, II 372. Cf. Birket-Smith 1941, 148 ff. This type of bag is also mentioned by Vancouver (1798, III 150), but it is not clear whether his remark refers to Kodiak or Prince William Sound.

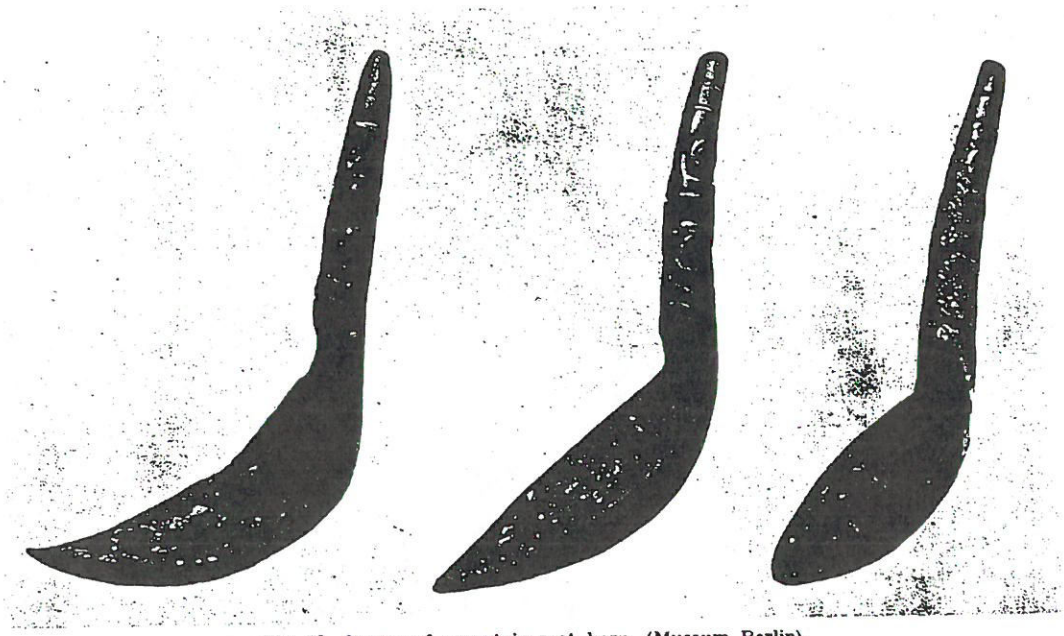


Fig. 32. Spoons of mountain-goat horn. (Museum Berlin).

They were made of different materials and apparently much used. Small sewing bags were either made of the urine bladders of sea lions and painted red, or of the skin of a seal flipper taken off whole with the claws; it was in later times lined with cloth and had an edging of cloth at the top, and the outside was embroidered with beads. A sealskin sewing bag was used by the men on hunting excursions. It had an oval bottom and was narrow at the top. Women had also sewing baskets. Small bladder bags were used for keeping paint[1]. The widely distributed Eskimo type of bag made of birds' feet was not used, although it was known both from the Eyak and the Yakutat, nor did the Chugach have bags of fish skin like the Yakutat and the Ahtena, who made bags of halibut and salmon skin respectively.

Tools were kept in bags of sealskin. For carrying clothes etc. a peculiar kind of sealskin bag was sometimes used instead of the waterproof basket mentioned above. On the outer side it had a long flap through which the head of the person was thrust, and on each side there was a string to be tied around the waist. When carried in this way, no water could penetrate into it. Other bags were made of an entire sealskin by cutting off the legs and sewing the holes together. Sealskin bags for keeping harpoon heads, etc., in the baidarka have been described in a previous chapter (p. 32).

At present the houses are more or less provided with ordinary furniture. Thus I noticed the following items in a house at Chenega: a stove, a table, one chair, a big wooden bed, a chest of drawers with a mirror and a few home-made shelves, a kerosene lamp, an alarm clock, and a grammophone. The walls were covered partly with wall-paper and partly with old newspapers. In one corner there were a few coloured prints representing saints of the Orthodox Church.

[1] Cook & King 1785, II 371.

CLOTHING AND PERSONAL ADORNMENT

Men's Dress.

Very scanty information about the costume of the Chugach can be obtained from the early authors. Cook saw outer garments reaching to the knees or the ankles and made of sea-otter, seal, fox, racoon, marten and bird skins[1]. Merck mentions coats of young bears, ground squirrels (евpашка), marmot, marten, and birds; outer coats were also made of depilated caribou skin, and he adds that the coats were often cut open in the sides below the armpits, a peculiar feature also observed on Kodiak[2]. Sarychev refers only to birdskin coats[3]. Cook noticed a few woollen blankets similar to those of the Nootka[4]. It must be assumed that they were traded from the Yakutat. After the arrival of the Russians the Chugach learned to weave blankets of mountain-goat wool themselves. Chiefs wore ordinary Pendleton blankets with a strip of red flannel on which a row of buttons was sewn down each side. The blanket was folded on the shoulders so that the flannel strips fell down in front.

According to our informants the innermost garment of men as well as of women was an apron made of the skin of a new-born seal and tied with a string round the neck and another round the waist. Some were decorated with beads, others with different coloured skins and provided with fringes along the edges. Such aprons were always worn under the rest of the clothing.

Inner shirts were made of depilated caribou skins which were traded either from the Indians of the interior or from the Eskimo farhter west (notice, however, the difference between this statement and that of Merck). The shirts were made of a front and a back piece with seams along the sides, and sleeves sewn on separately. Probably the inner shirt was often disposed of, for Meares observes: "Notwithstanding this extreme cold [−9° C.] we were visited as usual by the natives who had no other clothing but their frocks, made of the skins of sea-otters and seals, though chiefly of the latter, with the fur on the outside"[5].

The outer coat was made of marten, mink, ground-squirrel, land-otter or bird skin, whereas sealskin was regarded as being too cheap for clothing (cf. above). Ermine skins were used for decoration. Chiefs had coats of sea-otter or ground-squirrel skin. Cook met a chief dressed in sea-otter skin but adds that it was not valued more than any other kind of fur, and the Chugach seemed more reluctant to part with a coat of marten or "wild cat" (lynx?)[6]. A single sea-otter skin was split in two halves and sewn together at the sides whereas the sleeves were in the same piece(?) with the rest of the garment. Eagle skins with the feathers still attached were used for rain coats; otherwise the feathers were pulled off so that only the downs remained. Ten eagle skins, fifteen cormorant skins,

[1] Cook & King 1785, II 367 f. Cf. Ellis 1782, II 236.
[2] Merck 1937, 133. Cf. Birket-Smith 1941, 127.
[3] Sarytschew 1805–06, II 44.
[4] Cook & King 1785, II 368.
[5] Meares 1790, xviii.
[6] Cook & King 1785, II 357 f.

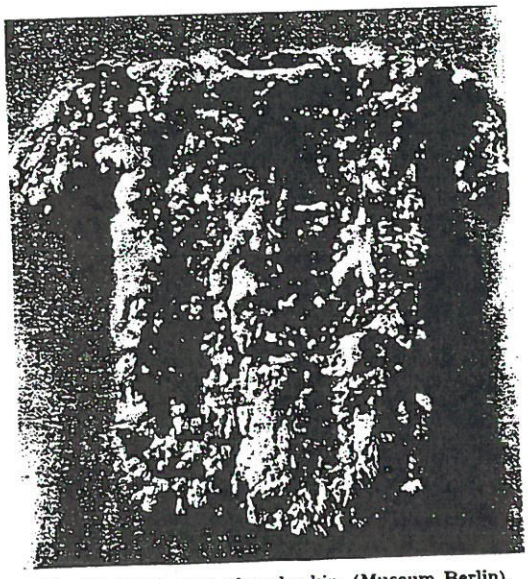


Fig. 33. Man's coat of eagle skin. (Museum Berlin).

or twenty guillemot skins were needed for making a coat. The flesh side of the skins was worn next to the body. The coats reached to the ankles and were never provided with hoods; the same applies to the inner shirts. When working, the men would use belts of braided sinew thread with designs in different colours and closed with a wooden toggle. Trousers were not worn.

In the *Museum für Völkerkunde* of Berlin there are three coats from Chenega, all of them made of eagle skins from which the long feathers have been removed so that only the down feathers are left. Before the manufacturing of the coats, the skins have been sewn together into horizontal bands, and there are no hoods. The native name is given as *kotzskallitt*. One of them, IV A 6259, has a length of 87 cm and an arm span of 145 cm. The two others, IV A 6258 (fig. 33) and 6260, differ only from the preceding one in having the inside of the hand openings and the lower border strengthened by means of strips of sealskin. Lengths 100 and 96 cm, arm spans 135 and 131 cm respectively.

For rainy weather the men had a sort of combination suit made of black-bear skin. The skin of the head formed a hood, and the skin of the legs, which was not cut open along the sides, served as sleeves and mittens, respectively as trousers and boots. The claws and the inside of the fore-paws were removed and a piece of young sealskin inserted instead. The dress was laced together in front with strings. On the other hand, trousers and boots made in one piece, which are common among most other Eskimo, were unknown.

Another kind of rain-wear was a gutskin shirt made of bear intestines[1]. Like the bearskin combination suit, but contrary to the ordinary coat, it always had a hood. As everywhere among the Pacific Eskimo the gutskin strips were sewn together horizontally, starting at the bottom and continuing upwards in a spiral. If the fragile gutskin was torn, it was repaired by inserting small, flat wooden disks with a groove around the edge, because

[1] Cf. Cook & King 1785, II 368. Meares 1790, xxxii. Merck 1937, 133.

Fig. 34. Man's gutskin shirt. (Museum Copenhagen).

sewing would tear the gut. At the time of our visit to Chenega, Stepan's wife was the only woman who was still able to make a gutskin shirt; the price of a new shirt was $15. An older specimen, P 532, was acquired for the Copenhagen museum (fig. 34). It has a length of 95 cm; arm span 1.30 cm. The lower edge of the body and the hand openings are bordered with cotton, and the hood and hand openings are provided with draw strings ending in blue tassels.

In the baidarka a sort of sleeveless gutskin jacket or broad belt was tied under the armpits and around the ring of the man-hole. No separate sleeves were worn with it.

There were several types of head-wear. A cap was made of mink or land-otter fur with the hairy side turned out and sometimes decorated with ermine tails. Fox skin was never used for caps. The caps might have ear flaps, which were tied under the chin, and sometimes eyeshades of baleen were sewn onto them. The latter trait may be of Russian origin, and although loose eyeshades were not mentioned by our informants it is highly probable that they were employed formerly as among the Kodiak Eskimo. Some caps were flat, others had a round crown. The skin of which they were made was cut in pieces and sewn together. However, an unsewn cap made of a loon's breast might be used in the village, but was not worn outside it on account of its fragility.

Conical basketry hats with flat tops were used in rainy weather. They were made of spruce roots and decorated with painted designs, *Dentalium* shells, and sea-lion whiskers.

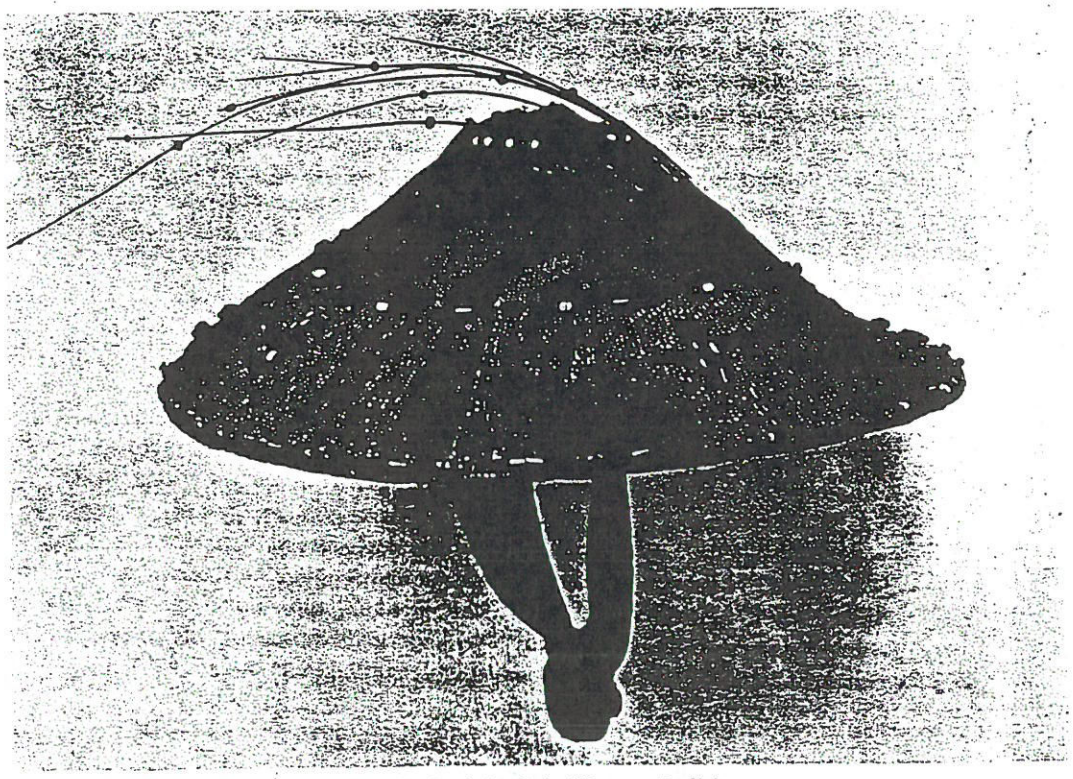


Fig. 35. Basketry hat. (Museum Berlin).

On the top of the hat chiefs had a sort of tassel made of roots, but the well-known basketry rings, which among the Tlingit indicate the number of potlatches given by the owner, were not used. Basketry hats are mentioned by some of the early travellers[1]. A specimen, IV A 6174, is now in the museum of Berlin (fig. 35). It is painted with a design derived from the Northwest Coast Indians and decorated with coloured beads and sea-lion whiskers on which other beads are strung. A very similar specimen, probably from Kodiak, is in the Danish National Museum[2]. A wooden helmet was said to be characteristic of the Eskimo farther west but unknown among the Chugach. This statement must be wrong, however, for in Prince William Sound Cook noticed painted wooden helmets shaped like the head of a seal[3].

Mittens had a thumb made of a separate piece of skin. They were made of bear's paws, but according to Cook they were not common[4]. Finger gloves were said to have been in use before the Russians, but this is scarcely very probable.

High-topped boots were made of sea-lion skin; for the sole and upper the belly skin was used, whereas the top was of throat skin[5]. Inside the boot grass, moss, or a loose sole of mountain-goat or bear fur was placed. Another kind of boot reaching to the hips

[1] Cook & King 1785, II 367. Sarytschew 1805–06, II 44.
[2] Birket-Smith 1941, 129 f.
[3] Cook & King 1785, II 369.
[4] Cook & King 1785, II 369. Cf. Ellis 1782, II 242. Sauer 1802, 187.
[5] A similar pair from Kodiak is described in Birket-Smith 1941, 132.

was made of the entire leg skin of the brown bear with the feet and claws left on. It was stretched with sticks while fresh and then turned inside out so that the skin might be prepared. Boots were also made of dog-salmon skin with sealskin soles. Cook says that as a rule the Chugach men went barefoot, but sometimes they had skin stockings (boots?) reaching to the middle of the thighs[1], and Meares saw several natives with uncovered feet in a temperature of −9° C. "without any apparent inconvenience"[2].

Women's Dress.

The clothing of the women did not differ much from the male attire. The apron was expressly said to be common to both sexes, although that of the women was so long that the breasts were covered, and it may be surmised that women wore the same types of mittens and boots as the men. Apparently also the coat was similar to that of the men. Sarychev saw some women still dressed in old-fashioned coats of otter skin[3]. They had also coats made of whole ground-squirrel skins with the belly side turned inward and the back side out. A chief's wives and daughters were dressed in sea-otter skins and wore ornaments of beads. Thus Makari's daughter once owned a coat made of green cormorants' heads trimmed with sea-otter skin; the back was of sealskin. On ceremonial occasions a chief's daughter would wear a sort of "veil" or nape ornament of beads and *Dentalium* shells hanging down the back and sometimes reaching the heels.

Toilet and Ornaments.

In South Alaska cleanliness seems, at least to a certain extent, to have been of a somewhat higher standard than among other Eskimo, although opinions differ to some degree. Whereas Cook praises the cleanliness of the Chugach, Portlock calls them "remarkably filthy"[4]. We should not forget that native ideas are not the same as our own. Some Russian sailors treated a Chugach to a meal of buckwheat porridge, but the poor man, who evidently did not appreciate the food, spat the whole mouthful back into the dish, and when his angry hosts were going to give him a sound thrashing, from which he was only saved through the interference of the officers, he pleaded that this mouth was clean indeed[5]. It is at least suggestive that the sweat house was a constituent part of every Chugach dwelling. The Chugach bath was a steam bath. Stones were heated in the fire and taken out by means of two sticks. They were then put on a wooden shovel with a narrow and oval (paddle-shaped) blade and carried into the bath room where water was poured over them. The increasing number of fire-cracked stones in the later archaeological layers and sites suggests that the sweat bath became more popular in late prehistoric times.

We do not know whether personal cleanliness also extended to the clothes. The Chugach had no special snow beater but would use any suitable branch, nor had they racks for drying wet clothes. When a garment had been wet, it was rolled into a bundle tied together with a rope and rubbed (to make the skin soft again?).

In comparison with the personal adornments of most other Eskimo, but in agreement with those of the Kodiak people and the Aleut, the ornaments of the Chugach were rather elaborate, whereas the style both of hair-dressing and tattooing was rather simple. The

[1] Cook & King 1785, II 268 f.
[2] Meares 1790, xviii.
[3] Sarytschew 1805–06, II 52.
[4] Cook & King 1785, II 374. Portlock 1789, 249.
[5] Sarytschew 1805–06, II 52.

men cut their hair at the shoulders and pulled out the beard with the fingers. The women wore their hair in two braids that might be tied together in front or behind their heads. Cook says, however, that as a rule the men were short-haired, while most of the women "tie a small lock of it on the crown; or a few club it behind, after our manner"[1]. Sarychev also mentions the female lock on the crown[2]. Meares, on the other hand, maintains that the hair of both sexes was rather short and of the same length in front and behind[3]. Evidently more than one style occurred, though the difference was perhaps more apparent than real. Hair combs were introduced by the Russians; after their arrival combs were made of baleen. Hair brushes were unknown. The back scratcher was a straight wooden stick, about 50 cm long, and square in cross section. Dr. de Laguna tentatively identified some small, polished slate plaques found during our excavations as mirrors[4]; I have, however, grave doubt as to the correctness of this interpretation.

Tattooing was performed with a needle, sinew thread, and soot. According to Cook, the design of the women "comes to a point in each cheek"[5]. Makari only remembered dots on the wrists and the chest, partly as an ornament and partly—in case of the chest tattooing of the women—because it was supposed to stimulate milk secretion. Fred Allen said that when a woman married, she had three lines tattooed on her chin.

Nosepins and labrets were, perhaps, the kind of ornaments that first attracted the the curiosity of the early observers. The nosepin was worn by both sexes, the septum of the nose being pierced shortly after birth, at least as far as the girls were concerned; but probably the same applied to the boys. The ornament might be a feather shaft, a piece of bark or bone, 5–7 cm long, or a thong with a *Dentalium* shell; beads were also used[6]. On Kodiak nose ornaments were sometimes made of sea-lion whiskers[7], and it is probable, therefore, that they were also known to the Chugach. Makari mentioned a nosepin consisting of a straight bone with a ring attached.

References to labrets are numerous[8]. Cook says that both men and women had a labret 5 cm wide, "a flat, narrow ornament, made chiefly out of a solid shell or bone, cut down into little, narrow pieces, like small teeth, almost down to the base or thickest part, which has a small projecting bit at each end that supports it when put into the divided lip; the cut part then appearing outward". Another type was described by Portlock as "a bone or ivory instrument fitted with holes in it, from which they hang beads as low as the chin". Sometimes the labret was a disk, 2 by 7 cm, made of green jasper, but in other cases there was a row of holes from which smaller plugs projected "like teeth". We were told that women used to have a big labret in the middle of the lower lip and smaller ones around the mouth.

Women, and probably men as well, had a head band made of beads. At feasts feathers, sometimes dyed with cranberry and blueberry juice, were put in the head band, but afterwards they were removed. At feasts they also took eagle down and blew it into the air[9].

Ear ornaments were common among both sexes. There were holes all around the rim of the ear for them. This custom is confirmed by all early travellers, who saw *Dentalium* shells and beads of shell, bone, and amber placed in this manner[10]. Amber sometimes

[1] Cook & King 1785, II 369.
[2] Sarytschew 1805–06, II 52.
[3] Meares 1790.
[4] de Laguna: Arch. Rep. (MS).
[5] Cook & King 1785, II 370.
[6] Cook & King 1785, II 369 f. Portlock 1789, 248 f. Meares 1790, xxxi.
[7] Birket-Smith 1941, 133.
[8] Cook & King 1785, II 369 f. Ellis 1782, II 240. Portlock 1789, 248 f., 289. Dixon 1789, 240. Sarytschew 1805–06, II 44. Meares 1790, xxxi. Merck 1937. 133.
[9] Cf. Meares 1790, xxxii.
[10] Cook & King 1785, II 369 f. Portlock 1789, 248 f. Dixon 1789, 147. Meares 1790, xxxii.

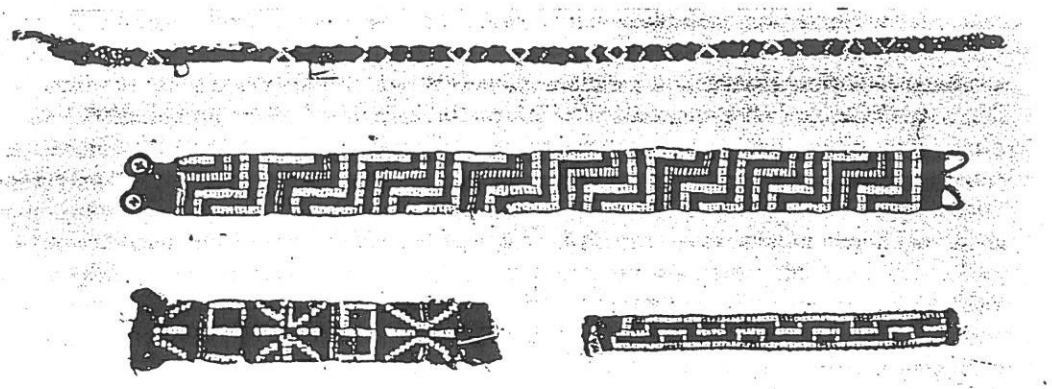


Fig. 36. Neck bands and armlets. (Museum Berlin).

drifted ashore on Kayak Island and was so highly appreciated that one pair of amber ornaments was worth two sea-otter skins. Many rather large, square or rectangular pendants of pearl shell were found during our excavations. In fact, according to Dr. de Laguna the prehistoric Chugach possessed a greater number and variety of beads than any other Eskimo group. Blue beads, no doubt obtained from the Russians, were also much appreciated. Cook saw several of them, and Ellis remarks that five or six of them were worth a "beaver" [i. e. sea-otter] skin to $ 90 or 100[1]. If Makari can be trusted on this point, the Chugach also made beads of unbaked clay mixed with seal oil.

Neck bands are not mentioned in the literature on the Chugach, nor were they spoken of by our informants. In the *Museum für Völkerkunde* of Berlin there are, however, several specimens from Prince William Sound. They are stated to be worn by men and women alike and called *ojameltkat* (fig. 36). IV A 6181 is a flat band, 39 by 2 cm, consisting of dark and light blue, dark and light red, and some scattered white beads forming vertical stripes. At the ends are small pieces of cloth with two white glass buttons and two straps. IV A 6184 is a similar band, 35.5 by 2.8 cm, of white, yellow, dark and light blue, and dark and light red beads forming a simple step design. Another type consists of a round roll, either made of cotton or braided sinew(?) and covered with beads of various colours, more or less arranged like a net. Such neck bands are IV A 6180, 6182, 6183, 6185, 6186, and 6187; the lengths vary from 39 to 73 cm. In one case (IV A 6183) the design forms a continuous spiral line.

Armlets of shell or amber were seen by Cook, whereas Merck noticed some made of white sheet-metal[2]. Others, we were told, were made of the skin of a sea-otter foot taken off whole. A number of armlets, all coming from Chenega, are in the Berlin museum (fig. 36). According to Jacobsen, the collector, they were worn by both sexes and called *kobosunguet*. They are made of beads stringed on sinew thread. IV A 6188 and 6190 form a pair with squares, alternating red with a light blue centre, and with blue and white cross stripes. IV A 6189 and 6194 are another pair made of dark and light blue, white, and red beads; the main motif is a dark blue ⎍⎍⎍ design lined with white. IV A 6191 and 6192 have both two white star-shaped designs on a dark blue ground and two white ⎎ designs filled with red. On IV A 6193 the colours are the same, *i. e.* blue, white, and red, forming a zigzag line.

[1] Cook & King 1785, II 357. Ellis 1782, II 243. [2] Cook & King 1785, II 370. Merck 1937, 133.

In the summer the Chugach blackened their faces with soot in order not to get sunburnt (scalded?) and smeared the eye lashes with red paint, but soot was not smeared round the eyes to prevent snow blindness. Snow goggles were not known. As to eye shades see p. 66.

Painting of the face and other parts of the body, as for instance the hands, was common at least on special occasions. The face was painted red, in other cases blue or lead-coloured, while black was considered a token of mourning, but no designs have been described except for Ellis's remark that one native "had half his face black"[1]. Makari said that warriors blackened their faces so that the enemy could not see if they turned pale with fear(!), whereas red paint belonged to the feasts. At the great Feast of the Dead the dancers were painted around the eyes and on the chin with red ochre. Stepan described the face pattern used on Montague Island at the Bladder Feast in December: round the eyes black rings; on each cheek bone red spots and below the spots three obliquely drawn lines, the middle one red and the outer ones black; along the ridge of the nose a vertical red line continued across the forehead; on each side of the forehead a red spot, and from that three lines, the middle of which was red and the two others black, ran in the direction of the temples. The pattern differed according to the village so that it was possible to decide from where the dancers came. On Kodiak, and therefore probably in Prince William Sound too, the paint was applied with a small wooden stick or spatula[2].

[1] Cook & King 1785, II 370. Ellis 1782, I 237. Portlock 1789, 248 f. Meares 1790, xxxii.

[2] Holmberg 1856, 83. Birket-Smith 1941, 134.

MANUFACTURES AND DECORATIVE ART

Men's Work.

Among the Chugach, as among most Alaskan Eskimo, handicrafts had reached a respectable level. Generally speaking there was, of course, a division of work according to the sexes, but the separation was not always very sharp, and apparently no taboos prevented a man from assisting his wife in a case of emergency or vice versa. A hunter away from home would not only cook, but he might also mend his own clothes, as appears for instance from the fact that he carried a sewing bag in his baidarka.

It is needless to say that the principal materials which were at the disposal of the Chugach in their struggle for existence were of local origin. However, the animal kingdom was not by far the source of supply to the same extent as among the Arctic Eskimo. Wood, bark, spruce roots and grass were utilized almost as much as bone, horn, baleen, etc. Another contrast to the arctic tribes is the lack of soapstone. On the other hand, greenstones and crystalline rocks were worked both for lamps and certain implements, and slate was of great importance for spear heads, knife blades, etc. Copper did occur, but never in great quantities, if we may infer from the excavations at Palugvik, where only a very few copper specimens were found. Sauer speaks of copper as being rather common[1], but that was already some years after the beginning of European contact. In early times it was mainly traded from the Ahtena, although there is some evidence of copper being obtained from Port Etches (cf. p. 12). It was always cold-hammered. Occasionally a stray piece of iron might be used, probably in most cases acquired from Japanese wrecks, either directly or traded from the Kodiak natives or the Aleut farther west; but the considerable amount of iron which Cook noticed at Prince William Sound[2] must be a late trait, for our excavations did not yield a single scrap of iron, and the finding of a piece involved a certain ceremony which testifies to its scarcity. The finder had to lie down just inside the door of the house with the iron piece at his side, so that any person entering would step over him. This was called cavɪ'ŋiLURUAralunɛ and was supposed to bring luck.

The stone technique comprised sawing, pecking, grinding, and polishing, whereas chipping was not employed in later days, even though it may have been used in an early period. Flint flakers were unknown. Stone sawing was performed by means of a thin and sharp piece of sandstone or schist, and a hammer stone without a handle was used for pecking. Numerous stone saws, hammer stones and grinding stones were found during our excavations.

Snow shovels were made of a single piece of wood; the handle was held in both hands, *i. e.* there was no strap on the blade for the left hand as on the Central Eskimo shovels.

[1] Sauer 1802, 198.

[2] Cf. p. 9. For a detailed discussion of the first appearance of iron among the Chugach see de Laguna's archeological report.

Holes in the ice were chopped with the stone adze, as no ice chisel was known. A stone maul occurred and may have been used for instance as a pile driver in house building[1]. Several maul heads were excavated by the expedition.

The abundance of wood is probably one of the reasons—for there may be others—why the working of wood had attained a rather high standard. Scarfing was a common method of joining, for instance in the baidarka, where the stem piece was scarfed to the gunwale and keelson. A primitive form for mortising was used for joining the baidarka ribs and the gunwales. Dovetailing, on the other hand, is scarcely aboriginal, but is now found in the log house. Examples of grooving and pegging occur in joining bottoms and sides of the wooden vessels. Wood to be bent was put in hot water. Bark and thin strips of wood, for instance for the sides of containers, were "sewn" together at the edges with spruce roots. Fire was never used for hollowing out wood.

The tools were few but quite effective. A wedge of tough, young spruce was common for splitting timber. Both wooden and stone wedges are mentioned by Portlock[2], and a few specimens were found at the sites. Some small chisels of bear penis bone and slate, interpreted by Dr. de Laguna as local inventions[3], were likewise found. Two types of adzes were known, and adze blades of stone are among the most common artifacts from prehistoric times[4]. The big "splitting adze" was used for heavy work. The type is the same as that found among the Indians of the Northwest Coast and—as Cook remarked—resembles certain Polynesian adzes too[5]. It was provided with a thick, rather narrow and blunt blade lashed directly to a shaft like a T or inverted L. It seems plausible that the splitting adze was a comparatively late intrusion from the Indians[6]. The "planing adze" was a much lighter implement, intended for hollowing out and planing wood. The blade was a simple celt with a sharp edge and usually set into a head which was lashed to the handle. The Jacobsen collection in Berlin includes what may be a planing adze, IV A 6229, from Chenega. The blade is made of slate, 26.2 by 6.4 cm, but rather seems to belong to a scraper, and both the wooden handle and the seal-thong lashing are quite new, so that the authenticity of the specimen is extremely doubtful.

Among the drilling implements were both the simple hand drill and the bow drill with handrest. According to Makari, the cord drill was introduced by the Russians, but his statement is hardly convincing; more probably it may refer to the pump drill, although the occurrence of the latter has not been proved in Prince William Sound. In other regions the cord drill is well-known among the Eskimo, at least as a fire-making implement.

The ordinary "crooked" whittling knife had a blade which in later times was of copper or iron. Cook saw both curved and straigt-bladed iron knives among the Chugach[7]. In the Copenhagen museum there is a modern specimen, P 536, from Chenega (fig. 37a). The crooked iron blade has a single edge and rests against a shoulder on the slightly curved, wooden handle, to which it is attached by means of a wooden wedge and a lashing of ordinary string. Total length 21 cm, free part of blade 8 cm. The knife is held with the palm of the hand upwards; this is in accordance with the method I have observed among the Indians of the Northern Woodlands (Chipewyan and Cree), but differs from that of the Greenland and Central Eskimo who grip the knife with the palm downwards. A tool made

[1] Cf. a Kodiak specimen of this type, described in Birket-Smith 1941, 154.
[2] Portlock 1789, 253.
[3] de Laguna: Arch. Rep. (MS).
[4] Cf. de Laguna: Arch. Rep. (MS). Two specimens, IV A 6304 and IV A 6321, are in the Jacobsen collection in the Berlin Museum.
[5] Cook & King 1785, II 373.
[6] de Laguna 1934, 172.
[7] Cook & King 1785, II 373.

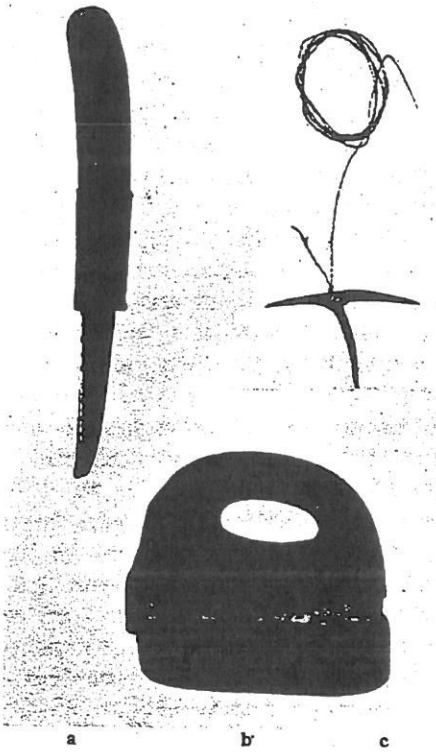


Fig. 37. Whittling knife (a), woman's knife (b), and gorge for catching gulls (c). (Museum Copenhagen).

of a beaver tooth was said to be a knife sharpener, but a whetstone was also used, and it seems a more reasonable assumption that the main function of the beaver-tooth tool was that of a knife or gouge. Among the Eskimo of Bering Strait it is both a gouge and a sharpener[1]. Incised decorations were performed with an engraving tool.

Spruce and hemlock bark was stripped off in the spring, when whole boat loads were gathered. This was done by means of a flat wooden stick nearly 2 m long. This was men's work, whereas the further treatment of the bark belonged to the sphere of the women. A clam-shell scraper was used to strip off the inner bark of the hemlock.

The manufacture of thongs was the only kind of skin working in which the men took part. The skin was first dried, stretched and scraped in the usual way (cf. p. 76 f). Thongs were cut either from a seal skin removed whole, or from the belly skin of a sea lion, but never from the skin of land animals except old bear skins from which the hairs had been worn off. In the latter cases it was cut spirally either clockwise or in the opposite direction, starting from the edge of the skin. A left-handed person, however, would always cut it clockwise. Afterwards the thong was stretched and dried. Stepan said that after cutting the thong was wound around a log or a plank for a whole summer; then it was soaked in water for several days, and finally smoked in the smoke house for five days. No thong smoother was used, nor swivels for preventing the thong from twisting.

[1] Nelson 1899, 89. A Kodiak specimen of this type described in Birket-Smith 1941, 156.

Sea-lion thongs are extremely tough. Once Stepan had a bunch of piles anchored with a one-inch Manila rope, but during night the rope broke. He recovered the piles, and this time he anchored them with a sea-lion thong only a quarter of an inch thick, and although a violent gale sprang up it remained whole.

Kelp was used for fish lines and rope, and according to Fred Allen rope was sometimes twisted of the bark of the yellow cedar.

Women's Occupations.

Apart from cooking the principal occupations of the women consisted in the preparation of skins, sewing, and basket making.

The typical woman's knife, so indispensable to all Eskimo women, was one of the very few aboriginal implements still in use at Chenega in 1933. A specimen from this place now in the Copenhagen museum, P 535, has a sub-rectangular iron blade set into a flat, semicircular wooden handle, in which there is an elliptical hole and, on one side, a shallow groove for the fore-finger (fig. 37b). Size 12 by 11 cm. When the knife is being used, the blade is steadied by the fore-finger, while the three adjacent fingers grasp the handle. In pre-Russian days the blade was of slate.

Nowadays any blunt woman's knife and even an ordinary spoon may serve as a skin scraper, but formerly a spoon-shaped implement of wood or a mussel shell was used for scraping. During this process it was held with the palm of the hand downwards. In the *Museum für Völkerkunde* in Berlin there are four scrapers of mussel shell from Chenega. They are described as bark scrapers, but it seems more probable that they were used for skin preparation. On the dorsal edge of the shell there is a piece of leather (IV A 6232–33) or bark (IV A 6231 and 6235) fastened by means of a spruce-root lashing piercing the shell. Sizes between 9 by 4 cm and 7 by 3.3 cm (fig. 17c). In our archeological collections there are numerous stone scrapers, and the two-handed beaming tool made of a split leg bone also occurs.

There were several methods for curing skins, some extremely simple, others more intricate, the latter being in reality forms of an unconscious fat tanning in which the blubber remaining in the skin formed a chemical compound with the fibres. For removing a surplus of fat the skins were soaked in stale urine; they were never treated with blood as sometimes in Greenland, but on the other hand they might be washed with spruce bark. In the following a brief account of the curing of different sorts of skin will be given. It will appear that there are some discrepancies between the statements of Stepan and Makari, the latter making much more use of urine than the former; it is possible that the methods described by Makari are older than those of Stepan.

According to Stepan, skins of mountain goats to be used for bedding are simply dried in the sun and scraped in order to remove the fat and meat fibres, whereas Makari maintained that they were soaked in urine before scraping, and the long hairs were removed so that only the wool was left. Such skins were also used for clothing. Stepan said that bear skins were stretched until dry; this was done on a wooden frame consisting of two long and curved pieces of wood connected with two shorter boards. This implement can still be seen in Chenega. After drying, the skin was washed in water mixed with froth from boiled bear's fat and spruce bark. It was then scraped with the woman's knife, rubbed between the hands, and dried once more. Skins of ground squirrels and marmots were

prepared in the same way. Makari mentioned soaking in urine before stretching in the case of bear skins, and the same applies to his description of the treatment of sea-otter skins because, he said, the hair does not come off easily. Stepan, on the other hand, gave a description closely resembling that of preparing bear skins: a sea-otter skin was placed on a stretcher until dry, then it was washed in water and a mixture of spruce bark and froth skimmed from boiling sea-otter fat or, in modern times, soap. After it had dried again a day or two it was rubbed between the hands for two or three days, until it was white as cloth; it was not scraped at all. The skin of fur seals was treated in the same manner as sea-otter skin. Makari added that when the hair of a sea-otter skin was worn off, it was scraped and used as ordinary depilated skin.

As to eagle skins both informants agreed that the long feathers were plucked off so that only the down remained, and also that urine was never employed in the preparation of bird skins. Makari told us that they were only rubbed, whereas Stepan stated that after the feathers had been removed the skins were hung in the sun to dry; then they were sewn together, washed in water, fat, and spruce bark, and afterwards dried and scraped. Skins of puffins were prepared in the same way.

Seal skin is, perhaps, the only kind of skins generally used at present, for instance for baidarkas. Stepan and his wife were observed removing the blubber from seal skins on the beach of Chenega. She moved the woman's knife in short, rapid strokes, downward and away from herself, and from left to right. The edge of the skin nearest the worker was held up in the left hand. The blubber was cut away and allowed to fold over upon itself toward the middle. Stepan used the same technique but with a hunting knife held in the usual white-man's manner. He worked more slowly than his wife, for, as he said: "Me no savvy uluaq [the woman's knife] much. Too small! He [*i. e.* his wife] savvy". They both started at the head, worked across the top, down one side, across the bottom, and up the other side, always from left to right and towards the middle. Stepan left his wife to cut up the blubber after it had been removed. She picked up the large sheet by one end in her left hand and cut it into strips with the same short and quick strokes. The knife was held with the blade vertical and pointed away. The pieces, about 15 by 50 cm, were put into a barrel until they could be boiled and the oil removed.

Seal skin with the hair on was used for clothing. According to Stepan it was placed in the sun on a stretching frame until dry. After it had been taken off the stretcher it was hung in the smoke house for about six months, during which time fires were built under it at intervals. Afterwards it was soaked in fresh water for two days, then cut up into the desired pieces and scraped.

The following description of the preparation of depilated seal skin was given by Makari. After being scraped the skin was soaked in urine and then placed in the bath house over hot stones so that the vapour would loosen the hairs. After that it was rolled tightly and packed down in a basket with moss for a few days, and the hairs were scraped off. Finally, it was soaked in urine to remove the fat. It seems likely that the latter statement is wrong, for the surplus of fat would probably be sufficiently removed by a single soaking in urine.

Sea-lion skins were only used for boat covers and for thongs. For the first-mentioned purpose they were prepared in the same way as depilated seal skins (Stepan, cf. p. 77). From the same source we obtained the following information about baidarka skins. The meat side is first cleaned with a woman's knife, after which the skin is dipped three or four

times in boiling salt water and rolled with moss inside so that the hairs will loosen in about two days. It is then possible to scrape them off with a spoon. Formerly a mussel-shell scraper or a spoon-shaped wooden scraper was used for this purpose. Finally the skins are hung up to dry, but when they are to be used they are again soaked for three or four days. He added that they are also stretched on a frame and scraped on both sides until all the "milky substance" inside has come out. It is not entirely clear on which point this part of the process enters, but apparently it is after the removal of the hairs and before drying.

I include here the description of the preparation of baidarka skins as it was written down by a Chenega woman; the original orthography has been retained, but a few commas have been added to facilitate the reading: "We take the fresh seal skin, Put it in Water 2 our [or] 3 times and after we Put it in Water we tie it oup [up] and Put some Mos[s] and let the hair lo[o]se, when the hair is lose we take oliok [the woman's knife] and scrap[e] the hair and after we scrap the hair we hang it oup tell its [till it is] good and try [dry] and after when its try when we want to Make Pitarkey [baidarka] we soak it in water 3 our 4 Days, when it soak we Put it in stre[t]cher and scrap all the fat and Juice and when we get thrue we then we splise [splice] 4 seal skin to gather, Put it in Potton [bottom] of Pitarkey and use 5 skins in Both sites [sides]".

In order to make gutskin the intestines are washed, turned inside out, coiled up and dried. After being split lengthwise they are ready for sewing. A gutskin shirt is sewn in a spiral, starting from the bottom, and when it is finished, it is soaked in water and hung up in smoke from an alder-wood fire for one day. This prevents it from becoming too soft when it gets wet afterwards.

Sinews of large whales, porpoises, and seals were made into sinew thread. Porpoise sinew was used for fine sewing. Thread made of grass or bark was not known, but bark was sewn with strips of spruce roots, which were gathered in the summer and burned to remove the bark, split and soaked in water. The Chugach did not have the sinew-thread holders so common among most other Eskimo. The thimble was a small, semicircular piece of thick skin, with a slit parallel to the straight edge. Ordinary sewing needles were said to be of copper and provided with an eye, but many bone needles and awls were found during the excavation and were doubtless far more common in prehistoric periods than those of copper. When sewing heavy skins, the women first punched a hole with an awl and afterwards used a special bone needle with an eye. Needles were stuck into a piece of eagle skin with the down and rolled up, but they had also a needle case consisting of an eagle wing feather, the upper end of which was plugged with wood. Sewing bags were mentioned on a previous occasion (p. 63).

Sewing was from right to left. The kind of stitch employed in making gutskin shirts is an ordinary running stitch, but for baidarka coverings they use a "blind" variant that is only carried halfway through the thickness of the skin. No information was obtained regarding the method of sewing fur skins, but it is probable that the same overcasting was used as among other Eskimo tribes. There is archeological evidence of both overcasting, running stitches and waterproof blind stitching[1].

The boot creaser was unknown; the creases of the boot soles were first made with the fingers and then a thread was drawn through them to keep them in position. In Chenega a peculiar implement was observed, consisting of a flat board, cut off straight at one end

[1] Cf. de Laguna: Arch. Rep. (MS).

and rounded at the other; here a vertical stick was pegged into the board, and near the upper end of the stick a small, oval block of wood was tied on with a piece of sinew string. When a gutskin shirt is being sewn, it is squeezed between the block and the upright, and the woman squats on the board, pressing it down with her foot. Jochelson, who found a fragment of a similar implement on Attu Island, is evidently right in assuming that it was adopted from the Russians, who had a similar appliance called *shveika* (швейка, *i. e.* "seamstress")[1]. The Aleut name, ka′six′, is the same word as that of the Chugach, kaʃɪq, and indicates that the latter got it via the Aleut.

Both skin and feather weaving, which is well known from the Eskimo of North Alaska, is entirely foreign to the Chugach. Unfortunately we have no information about hair embroidery, but as it occurred among the Aleut and the Kodiak Eskimo[2], there is a strong probability that it was found among the Chugach as well. Weaving of goat wool was learned from the Russians (p. 64).

Basket making was a typical female occupation, and several examples of baskets have been described (p. 58 ff). The ordinary technique was twined weaving, and the texture was so fine that it was completely watertight. In some cases feathers might be inserted between the strands. The material was spruce roots, because grass and fern roots are less durable. There were many basketry designs (cf. p. 79).

Pottery was unknown, although small toy animals were modelled in clay, and as formerly mentioned shiny beads were made of unbaked clay mixed with seal oil.

Colours for painting and dyeing were obtained from various plants and rocks. Red and purple came from a sort of swamp grass. Dark red they got by boiling hemlock bark, and another variety of red from cranberry and blueberry juice. Mineral dyes were made by crushing rocks of different colours in a hollow stone (mortar?) and mixing the dust with seal-oil or water. After the dyeing process, spruce roots for making basketry were soaked in stale urine to make the colour stick, and red to be used for painting wooden vessels or the like was mixed with blood from the nose. A grayish colour which was mixed with other colours was produced from copper ore. Black came from a black rock on Kayak Island, red and yellow from other rocks, probably ochre; red ochre is only found at Nuchek. Other minerals used were blue, brown, and a dark-coloured stone. Spruce roots were dyed before weaving; only the basketry hats had designs painted afterwards.

At the present time all Chugach women crochet and knit. Socks are mended by knitting, not by darning. The women also make sealskin moccasins (tourist style), and crêpe-paper flowers for the church and for gifts.

Decorative Art.

Chugach decorative art comprises sculptural forms, engraved and painted designs, shell and bone inlaying, basketry ornamentation, and bead work. Although direct evidence is lacking there can hardly be any doubt that also a kind of skin-mosaic occurred, similar to the borders of narrow, variously coloured strips of skin on the garments and gutskin bags of the Kodiak Eskimo[3]. Hair embroidery was probably likewise known.

Several examples of sculptural forms have been mentioned on the preceding pages, where wooden bowls in animal shapes, carved spoons, etc., have been described. In some

[1] Jochelson 1925, pl. 26, fig. 28.

[2] Sauer 1802, 156. Lisiansky 1814, 207. Holmberg 1856, 365, 367.

[3] Cf. Birket-Smith 1941, 128 f., 148 ff.

Fig. 38. Basketry designs.

cases, for instance the figure on the wooden ladle P 533 (cf. p. 62), the style is more or less realistic and thus shows affinity to Alaskan Eskimo art, but as a rule the patterns are more closely related to, and without doubt derived from, the more elaborate Northwest Indian types. The character of the painted designs *e. g.* on the basketry hat fig. 35 points unmistakably in the same direction. The decoration by means of inlaid shell beads is entirely different from the bone mountings of Greenland wood-work and probably also of Northwest Indian origin.

Makari recognized no drawings of ordinary incised patterns as dot-and-circle, Y-ornament, herring-bone, spurred lines, etc., but examples of some of them are common on specimens excavated at Palugvik. The decoration of the archeological specimens is, however, remarkably simple, and Dr. de Laguna is doubtless right when she emphasizes "the persistence in Prince William Sound of very old Eskimo styles"[1]. For the description of such designs the reader is referred to the archeological report. On the wooden water pail described on p. 58 there is a simple pattern consisting of straight lines, cross-hatching, and small groves.

Makari knew the basketry designs seen on fig. 38, although he was ignorant of their names. Similar designs occur in the wrist bands, necklaces, etc., made of beadwork, and they were probably introduced from the Indians of the Northwest Coast where quite or nearly identical patterns occur[2].

[1] Cf. de Laguna: Arch. Rep. (MS).
[2] Birket-Smith & de Laguna 1938, 82. Emmons 1903.

SOCIAL LIFE

Family and Kinship.

As among other Eskimo, the family was the fundamental unit in Chugach society. There can be no doubt that matrimony was considered the normal status of all grown-up persons, males as well as females, the only exception being the berdaches to be described later (cf. p. 94). At least in our days, and there is no reason for believing that it was otherwise in former times, the family ties are very close. Not only are parents proud of their children and like to have them near, but at Chenega people are fond of visiting their relatives in Valdez and Cordova.

We have no reliable information about sexual morals outside wedlock. If we may judge from other Eskimo, the standard was not too high from our point of view, but this is, of course, merely a loose supposition. Whereas Makari admitted that both the Eyak and Yakutat used to offer their wives to visitors, he flatly denied that this custom ever prevailed among the Chugach: they would not even offer them a slave girl, nor would a man sleep with his female slave unless he married her. I believe, however, that we may safely question these statements, which are probably rooted in present-day Christian ideas. He also said that it brought bad luck to the village, if a man had sexual intercourse with a foreign woman. On the other hand incest between parents and children might occur, although it was strongly disapproved of. One time he said that a brother might marry his own sister, but on a later occasion he denied it; here the latter statement is probably correct, as brother-and-sister marriage is otherwise unknown among the Eskimo, and he may have misunderstood the question in the first case[1]. A man might marry his mother's sister, and cross-cousin marriage was probably common: "the old, old people would sooner take their cousins". His information about marriage between parallel cousins was self-contradictory, so it can not be established with certainty whether it was permitted or not. However, as a man might get into his female cross-cousin's bed and sleep with her when her husband was away without arousing his anger, whereas parallel cousins were "brothers and sisters", there seems to have been a deep-rooted difference in their sexual status. Levirate may have been the rule; at least it appears that if a man died, his younger brother (?) might take over the widow.

Two or more brothers might marry two or more sisters and would then sometimes live in the same house, and perhaps sexual intercourse between them was permitted, but this is the only form of "group marriage" known. In this case the man would call his fellow husband, and the woman her fellow wife, ałqa, *i. e.* "partner", the same word

[1] On the other hand Langsdorff (1812, II 58) speaks of sexual intercourse between brothers and sisters and between parents and children on Kodiak. Among the Aleut marriage was allowed between half-brothers and half-sisters by the same father but not by the same mother (Sarytschew 1805–06, II 167).

that is also used by a man for designating his concubine wife. Whereas polyandry was said to be unknown[1], a few men—and, of course, only the rich—had two wives. The husband always treated them alike and divided the game evenly among them, but if they did not agree he would beat them.

Apparently there were no obligatory marriage rules except in regard to incest, and as mentioned above, even they might be violated. The different Chugach tribes often intermarried, but there was no true local exogamy. Marriages were—more or less, of course—for love, and forced mating did not occur. A chief's daughter could marry an ordinary person, and a free man a slave. When a youth had made his choice, he would send his mother or, lacking a mother, his aunt, his (maternal?) uncle, or finally his father to ask the consent of the girl's parents. Then the mother of the girl would ask if the boy had a house, or hunting implements, and if he was a good provider ("now mothers are not so particular", Makari added). If she approved of the match she asked her daughter in the presence of her future mother-in-law whether she would marry the boy. If she accepted him, he came to see her, and they decided where they would live—either in the house of his parents or in that of hers. The young man never sent presents to the girl to win her.

Fred Allen said (though this seems rather doubtful and is not mentioned in the tales) that when a couple wanted to marry they first had to obtain the consent of the shaman and the chief of the tribe. Then for thirty nights they were required to sleep on a large bear skin, he on one side and she on the other. During this period of probation they had to bathe in the sea every morning and could eat no seal oil. At the end of the period the skin was taken before the shaman and the chief men and carefully inspected. If the condition of the skin proved that each had kept faithfully to his or her side, a great feast was held and the marriage thus consumated.

At this point Makari took up the thread of the narrative. The guests gathered sitting on the floor around a low table with mats or cloths of goat wool (the table is evidently a Russian innovation) and ate from painted wooden bowls sometimes carved in animal shapes (cf. p. 61). Married couples ate from the same bowl, while children had their own. After eating everybody started to dance around the newly married couple, both men and women moving in a circle accompanied by the drum. Then presents were given. The first one was a bear or goat skin blanket upon which the couple lay down. They were then covered with another blanket, and afterwards the guests piled other presents on top of them. The parents-in-law gave presents too, the father-in-law for instance some arrows, and the mother even a baidarka. After the marriage the son-in-law would give them some presents in his turn.

It seems that as a rule the couple would live in the bride's village first and then in that of the husband, so that the parents would not feel too lonesome in the beginning. If they lived in the mother's house the newly wedded wife used her mother's cooking basket until she got one of her own, and correspondingly if she lived with her mother-in-law. If he wanted to live separately, the young man had to build a smoke house of his own for his wife. A widower usually joined the household of his married son or daughter, and the unmarried sisters of the wife often stayed with her and her husband.

If the couple did not get along well together they separated, but as a rule this did not

[1] Polyandry occurred on Kodiak (Schelechof 1793, 203), so our information about the Chugach may be erroneous.

happen if they had children. In case of divorce the wife might leave her husband, or vice versa.

The following table gives a summary of kinship terms, with the possessive suffixes in the first person singular:

Term	In relation to		
	both sexes	men	women
amᵛuᵛra	great grandfather / great grandmother / grand uncle / grand aunt	—	—
apaᵛga	grandfather	—	—
amaᵛga	grandmother	—	—
ataᵛga	father	—	—
aᵛnaqa	mother	—	husband
uᵛga	—	wife	—
nuliᵛra	—	—	
muxtara	son / brother's son / cousin's son		sister's son
panᵛga	daughter / brother's daughter / cousin's daughter	—	sister's daughter
ɬɬuaqa	grandchild	—	—
ɬɬᵛliautiga	great grandchild	—	—
anŋara	older brother	older sister's child	—
alqara	older sister	—	husband's cousin (f)
ujuara	—	younger brother	younger sister
najaᵛra	—	younger sister	—
aŋutknunara	—	—	younger brother
aŋaᵛga	parent's brother	—	—
acaᵛga	parent's sister	—	—
cakiᵛra	—	wife's cousin (m)	—
paniara	—	wife's cousin (f)	—
iluara	cousin	—	—
ujuᵛra	—	younger sister's child	—
cakiᵛka	father-in-law	—	—
cakᵛiga	mother-in-law	—	—
niŋuᵛka	son-in-law / child's father-in-law	wife's brother / wife's younger sister's husband	husband's cousin (m)
ukuara	daughter-in-law / brother's wife	wife's brother's wife	—
aika	sister's husband	wife's sister	husband's brother
cakiara	child's mother-in-law	—	husband's sister / husband's brother's wife
ʃajaᵛruka	—	wife's older sister's husband	—
ataᵛlertika	stepfather	—	—
anaᵛlertika	stepmother	—	—
pikᵛŋwiara	foster-son	—	—
nukaᵛra	foster-daughter	—	—
alqa	—	concubine	fellow-wife

Even a casual glance at the preceding list suffices to show the genuine Eskimo character of the terms[1]. Only in a few cases do the word stems differ from those employed by other tribes. It is true that in certain cases a slight shifting of the meaning has taken place, but this is not uncommon in other dialects either. Sometimes two terms seem to have coalesced into one, for instance "my older brother" and "my older sister", both sexes speaking, whereas in other dialects there is a distinction as to whether the speaking person

[1] Cf. Birket-Smith 1928, 41 f. Jenness 1923, 83 f. Jenness 1928, *passim*. Lantis 1946, 235 f.

is male or female, although the word stems seem to be mutually related. It is another remarkable fact that the same words are used for son, brother's and cousin's son and a woman's sister's son. Similarly, identical words are used for daughter, brother's and cousin's daughter and a woman's sister's daughter. On the other hand a man will use different terms for the children of his older and younger sister, but without making any distinction as to their sex. It is also worth noticing that the terms for older brother and older sister's child are the same, whereas different, although closely related words exist for younger brother and younger sister's child. It is, perhaps, probable that a fusion of the terms has occurred in the first instance.

It appears from the list that there was a feeling of close connection between a person, whether male or female, and his or her brother's (and cousin's) children, as well as between a woman's and her sister's daughters. In all cases they are called by the same words as those used for one's own sons and daughters. A younger brother could "take" the older brother's children. This was not an adoption but more like the relationship of a god-father and his god-children. The special ties between cross-cousins are suggested by the before-mentioned customs of marriage and sexual intercourse; but it was also said that a woman's children could "make slaves" of and "take things" from her brother's children, *i. e.* their cross-cousins, which probably means that they might let them work for them.

The relations between brothers and sisters were subject to some restraint. Even though they might talk together they would never speak to each other of their love affairs, and they were not supposed to joke with each other, although they could be present when somebody else was telling a joke. In the case of children and parents-in-law the reserve even resulted in a slight avoidance. A man would let his mother-in-law enter the smoke house before he entered himself, and he would never speak to her except in case of necessity. A woman would not speak to her mother-in-law unless the latter spoke first. These customs were kept up even after the spouse had died.

Sternberg once expressed the opinion that there were traces of what Lewis H. Morgan called the Ganowánian kinship system in that of the Aleut and the Pacific Eskimo[1]. He founded his hypothesis on the supposed group marriage between brothers and their wives and between cousins, which he considered survivals of a previously more extended group marriage. However, the sexual liberty between the latter has nothing to do with matrimony at all, and the "group marriage" between brothers and sisters was a very special case to which we cannot assign general validity. It is not improbable that the common Eskimo custom of leaving a wife to one's brother during a temporary absence, for instance on a journey or hunting excursion, may have given rise to it, and thus there is hardly reason for adopting Sternberg's view[2].

The Life Crises.

Everybody wanted to have offspring, at least boys, and women with babies were considered lucky, whereas a barren woman was said to be "without seeds; her insides were dark". Abortion and contraception were not practised. The preparations for child-birth began as soon as a woman realized that she was pregnant. If she was lazy during this period the child would be lazy too. If she sat down with her knees spread wide its mouth would become big. When the moon was full she ought to look at it and breathe

[1] Sternberg 1913, 329, 332 f.

[2] Birket-Smith 1927, 102 ff.

in, for this would make the child's face round and handsome. In order to make the birth easy she would take a handful of stones and drop them one by one behind her as she walked along. She must never sleep on her side, and when she woke up she must turn the pillow over quickly (Ma still made this a habit).

As a rule childbirth did not take place in the ordinary house but in a small shelter erected especially for the purpose. It was made of branches leaning against a frame of a cross pole resting on two uprights. It was open in front, and the floor was covered with moss spread on boughs. Within there was a place in which hot rocks were set to heat the shelter. The births of male twins formed an exception from the ordinary rule. A birth of this kind brought good luck to the house, and therefore twin births should take place in the dwelling; but all men had to leave it during the event.

Otherwise it was a disgrace to the family if a child was born in the house. Then everybody had to move out and burn their clothes and get new ones. They built a fire inside the house and smoked it out in order to clean it. The hunting gear was smoked too and washed afterwards in salt or fresh water, according to whether it was used for sea or land hunting. The baidarkas, which ordinarily were kept hanging inside the smoke house, were also smoked. The smoke was kept up for a couple of hours, and this was considered sufficient to drive away "the bad smell".

During the birth the woman squatted, resting on her knees and hands, and it was supposed to be good for her to maintain this position for four or five days (*sic*!). An old woman would act as a midwife. She took off her own underwear and squatted behind the expectant mother with her legs apart and never came in front of her. She might retard the birth until it was dark and everything was quiet. If the woman did not like the midwife, or if the child was illegitimate, or if the husband was unfaithful to his wife, the birth was hard and the child would not come. In the latter case it would ease the labours if the woman could get the adulteress to confess the truth. Makari's second wife was a kind of shaman and knew when a woman was having a hard birth. Once a girl was giving birth to a child, but it hated her and would go back every time she came near. So Makari's daughter sent her stepmother away and delivered the girl.

When a birth was difficult the midwife unbraided the woman's hair and took off her finger and ear rings. Everything had to be loose, and it was considered bad to cross the fingers. This, however, did not apply to people in the house. A needle poked under the mother's tongue would make the child come quickly. If the child was not in the correct position the midwife would feel where its head was and "flit it behind the ear". Then the child would turn around and come right out.

After the delivery the new-born baby was wrapped in moss, and a loon skin was placed under it to bring it luck. The cord was cut with a woman's knife, and the end was tied with grass. The navel was healed with devil-club ashes. Right after the birth the mother ate a piece of raw fish to make the child's cord come off; this would happen in three days. The cord was dried and was afterwards worn in a gutskin bag as a charm around the father's neck, and if the child was born with a veil it was treated in the same manner. The afterbirth was buried in a dry place in the woods or was kept until there was a big run-out of the tide, when it was buried as far down the beach as possible. If it was allowed to rot it would make the mother's womb sore.

Except for the piece of raw fish eaten immediately after the birth the mother had to avoid both raw fish and raw meat for two or three weeks, until she came back to her

house. A kind of dried sea-weed, niupat, boiled with salmon roe was believed to give her abundant milk. Smoked salmon had to be scorched in the fire before she ate it. These two foods were the first things the mother ate. A sweat bath was taken the second day after childbirth and then every day afterwards.

If an unmarried girl had a child, or if a woman had a miscarriage and kept it secret, it would give rise to a storm as soon as she returned home from the place where the body had been hidden. The people would have a meeting every day until they discovered the place, or the shaman would find it out for them. He had to be left alone and could then walk right to the spot where the baby was buried. This happened at Tatitlik not long ago. Married women did not keep a miscarriage secret but buried the child in the woods or burnt it and left the ashes behind.

Mother and child had to stay forty days in the birth shelter or—in the case of twins —in the sleeping room of the house. During this period her husband was allowed to visit her, but not to sleep with her. At the end of her seclusion the mother would take a steam bath and put on new clothes, and her old garments as well as the shelter and the moss on which she had slept were burnt. These precautions were taken, because otherwise she would take away the strength of the men and spread disease. At her return to the house there was a great feast with plenty of meat, to which the whole village was invited. After eating they played games, as for instance checkers and stick game, but not jump rope. At the birth of a child all the relatives gave presents.

Chugach women did not carry infants on their backs as other Eskimo and the Eyak do. Instead they had two types of cradles made of sealskin. One was square, hanging in the house from thongs attached at each corner, the other type shaped somewhat like a bath tub and intended to be leaned against the wall. Jacobsen found near Chenega the mummy of a small child lying "*auf einem runden Holzreifen, der mit einem Schneeschuh aus Labrador Aehnlichkeit hatte und wohl eine Kinderwiege war*"[1]. In the Berlin museum there is a cradle of the latter type from Nuchek (IV A 6270). It has a wooden frame consisting of an oval ring at the top and a circular ring at the bottom. The rings are kept apart by means of four wooden props lashed to the rings with spruce root, and the whole frame is covered with dehaired skin. Length 65 cm, breadth 35 cm, and height 19 cm (fig. 39).

A child was named by its father for a dead relative even before the birth took place, but as there were different names for boys and girls he had to chose the names of two persons of opposite sex. As a rule the name was that of the relative he liked best, as that of his father, uncle, or brother, but not that of a cousin unless were many children in the family. However, after the Russians came this practice was given up because they feared that otherwise the child would die. The child was not supposed to resemble its dead namesake, nor was the soul of the dead person believed to be reborn in the child. Only if a child died and another of the same sex was born, it was said that the dead baby had come back. Ma Tiedemann stated that in such a case the newborn was given a new name so that it would not die, but Makari knew nothing about this. Later, the first name might be used by some other relative. If three young children, named successively for the same person, all died, the name was entirely abandoned. Twins were given different names as otherwise they would not live long. They had "only one life", and the older held the life of the younger so that if the former died, the latter would do so soon. On the other hand the younger twin might die, and the older would still live.

[1] Woldt 1884, 382, cf. 384.

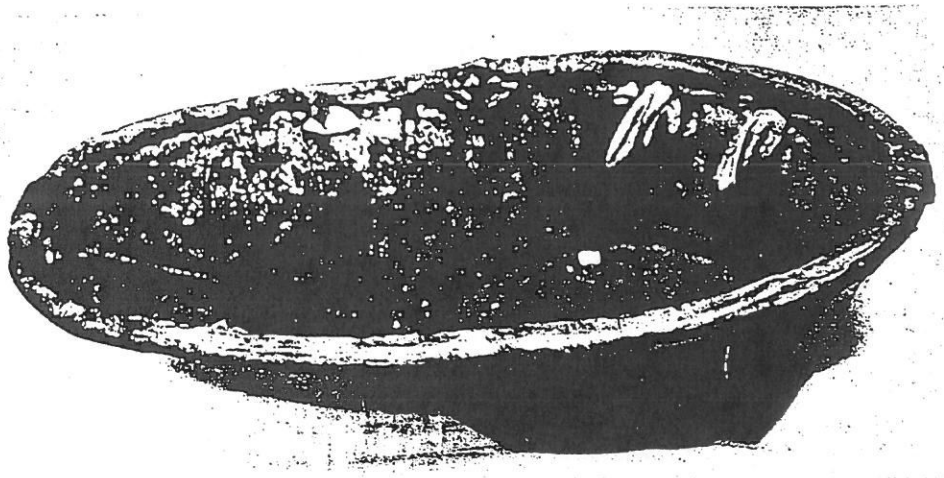


Fig. 39. Skin cradle. (Museum Berlin).

Sometimes a person might give his name to a child that he liked. The old chief at Chenega liked beans, so he called one of Ma Tiedemann's boys by his own name that he could always get great quantities of beans to eat. A very old person, for instance a great-grandmother, would sometimes give a nickname in order to insure long life for the child. Ma Tiedemann got a nickname from a very old woman—"so old that when she sat down, her skin lay in folds on the bench beside her".

A person might acquire a new name for performing some great deed. Then the people would call a meeting and give him the name of a great hunter who was dead and whose name had not yet been given to anybody else. A person could also exchange names with a friend. Thus Makari's native names were alɨ·ŋʊn nupaɪkɛrɪuɢɔq. The first one ("afraid") he had obtained by exchange in stead of his original name, aŋa·xuna ("labret hole" or "black scoter's anus"). The other name had formerly been owned by the father of the girl who was killed by a spirit, because she danced at a remembrance feast for the dead (cf. p. 113). Makari also exchanged names with Misha, his wife's brother, soon after Makari had married. Petroff refers to this custom: "Both Meares and Portlock report that they exchanged names with certain chiefs of the Chugachimute, and when Baranof visited Nutchek island an old man insisted upon exchanging names with the Russian chieftain's dog (Sargach). This was the last instance related of this curious custom, which seems to have been forgotten by the Chugachimute of to-day"[1]. As will be seen, the latter remark is not quite correct. In name exchange, the real name, not the nickname, was traded. It was, however, "just play", *i. e.* the exchange was not permanent, and in reality a person kept his own name and used it even after the exchange.

Two very good friends might have a secret nickname in common. Thus Makari and his father's sister's son called each other ilurʌrʊtilɨŋʊq ("some guts missing"). No one else knew this name. When one of them wanted a secret meeting or hunting trip with the other, he would go outside the village and shouted: "ilurʌrʊtilɨŋʊq!" Then his partner would sneak off and join him. They always used this name when they were alone together,

[1] Petroff 1884, 146.

especially on hunting excursions. They had this name almost from the time when they began to talk. Makari had another name in common with his relative, Peter Chimovitski.

A person was adressed by his nickname or his "honour name". A child was always called by its nickname, but when it grew up the latter was changed in favour of its "real", *i. e.* baptized name (this, of course, must apply to the post-contact period). There was no taboo against mentioning one's own name as among some other Eskimo tribes, but the name of a dead person was never mentioned before a child had been named for him, except at the Feast of the Dead and the Victory Feast, when food was put into the fire (cf. p. 112f).

Children were nursed until ten or even twelve years old. When boys began to walk, they were beaten on arms and legs with a weasel skin so that they would become as quick as a weasel. Later on the skin was used for trimmings on the boy's dress, and when the garment got old, the trimmings were sewn on the new clothes. In the case of twins the mother had to be very careful in raising them. Their clothes must not be left lying around for fear that the children should lose their strength. They had to wear the same kind of dress, eat the same food, have the same presents, etc. This custom is still practised.

The mother took care of the children till the boys were old enough to hunt, *i. e.* till they were about twelve years old or even younger, when their uncle, either paternal or maternal, would teach them to hunt. Makari was only nine years old, when his maternal grandfather's brother made his first baidarka frame, and his mother sewed the skin cover for it. About that time he clubbed his first seal. The uncles also made toys, such as bows and arrows, for their nephews, and aunts or older sisters made dolls for the little girls. An older brother would "boss" his sisters and younger brothers, just as a girl would do with her younger sisters. As a rule the father or the uncle would administer any necessary punishment. They might also throw them into the water and beat them with spruce boughs to make them strong. When the mother had to punish she would shut the child up in the dark sleeping room and not give it anything to eat. In Chenega I witnessed a six year old boy who had to stay naked within the house a whole day, because he had been playing outside the day before and refused to come back when he was called; but he was not beaten. Very often, we were told, the children liked their uncles and aunts better than their parents and would run to them for protection when they were punished at home.

When a young man had killed his first bear, seal, sea lion, sea otter, or marmot, a special ceremony was celebrated. He had to fast for three days, and all the meat was given away, but the family tried to keep the event secret. After the three-days' period, however, they gave a feast. The boy was dressed as a baby, and the mother sang a lullaby to him. Then two old women appeared, one of them dressed (masked?) like the animal caught and wearing a seal stomach filled with blood concealed under her garment. The other woman pretended to kill her, and both of them were rewarded afterwards with skins or furs. The first time a man had caught a whale he had to fast and keep continent for five days. After this period he and the other men in the village took a sweat bath, and a feast was given so that the whales would not be afraid of him in the future. The hunting implements used had to be purified with smoke. There were no ceremonies for killing the first mountain goat nor for small animals, but when a man had killed his first enemy in war the same customs were observed as those applying to the first game. For sea otters cf. p. 32 f.

On reaching adolescence a girl was taken into one of the sleeping rooms by her mother,

who attempted to attract as little attention as possible. There the girl was confined for ten to twelve days or, according to Fred Allen, twenty days. She was fed only at night when the evening star appeared, and every one else had gone to bed; then her mother pushed food in to her through the door. The girl was not allowed to scratch her head, but no special head scratchers or drinking tubes were used as among the Northwest Coast tribes. She drank out of an ordinary spruce-root cup. At the end of the period her grandfather or grandmother or some other old person would lead her out and take her down to the beach or to a water-fall. Her eyes were covered with a handkerchief pulled low over her forehead so that she could not see the daylight. The old attendant built a fire, and the girl dived five times into the water and each time ran around the fire. Then the attendant dried her hair at the fire, her eyes were shielded again, and after she had counted the tide marks beginning with the highest she was taken home and considered clean although, according to Fred Allen, she still had to bathe in the sea every morning and evening for five days. If a girl kept her first menstruation secret, it would storm and blow, and the people would soon discover the cause.

During her later menstruations a woman had to keep to the sleeping room and stay there as long as the flow lasted. When the other inhabitants of the house were eating she was not permitted to move from her place, and a slave had to cook for her husband, because she was not supposed to touch his food or his plate. Certain foods were taboo to her, for instance fresh meat and fish. She must not eat mountain-goat meat, or the men would kill no goats in the future. Blueberries would make the period last longer. Grease and sea-gull eggs were also taboo. On the other hand she might eat smoked fish and smoked tallow as well as a certain plant, kunʌ·q (cf. p. 42). Sometimes a menstruating girl stole a piece of fresh meat. If she was found out she would be given a licking, and at all events she was sure to get some disease and always have bad luck. It was forbidden menstruating women to touch or step over a man's hunting gear, as otherwise he had to throw it away. If a man missed his game he would ask his wife or the girls in the house if they had touched his implements during their menstruation periods—for it happened that the girls did so for an experiment. Stepan purified such polluted things by rubbing them with water and a piece of spruce bark tied up with one of his own hairs. Rattles, drums, and masks were hidden away in a cave when they were not used, to keep them from the young girls. If a menstruating girl touched a shaman's mask or drum he would know about it and burn it up. When the menstruation had ceased the woman took at sweat bath. It should be added that a female shaman did not lose her power during her menstruation and that the use of the menstrual fluid for magical purposes was unknown.

When some one was going to die, a noise was heard as if lumber was thrown on the roof of the house. At the approach of death all people kept quiet so that the person might depart in peace. Suicide occurred, either by hanging or stabbing, but it happened too that an unfortunate hunter became so "disgusted" that he killed himself by pressing his chin against his collar bone until it broke (*sic!*). Old people were never killed, nor did they ask others to kill them, and infanticide was not practised(?).

The corpse was washed by male or female relatives (this custom was in all probability introduced by the Russians, however) and was wrapped in skins. For ordinary persons sealskin sufficed—Stepan said they were simply old baidarka skins—but for chiefs and their family sea-otter skins were used. Ornaments such as beads, labrets, etc. were left on the body. A chief was to be dressed in his armour, with a shirt of chamois skin, or,

if he had no armour, in a coat of sea-otter skin. No mask was put on his face except in the case of the so-called Aqlat (cf. p. 94 f). Nobody was afraid to touch a corpse, not even that of a shaman, for as soon as he died his spirit helpers were supposed to leave him. Still, Makari believed that the rheumatism in his legs was due to so many dead persons having been propped against his knees. On the other hand it was dangerous to touch old human bones; they could only be handled with sticks after one had blown on the hands, for otherwise the latter would shrivel up.

The body was left for some days in the main room of the house. Now three days are usual, but formerly there was no fixed period. During this time neither the inmates of the house nor outside relatives of the deceased would go hunting or accomplish any work as for instance building baidarkas. The relatives spent the time singing and weeping and singed their hair but otherwise did not mutilate themselves, nor did they cut their clothes, and there were no food taboos[1]. When a chief died everyone cried and nobody "would budge" till after the burial, but all people came to see him. The corpse was carried out through the ordinary house door. On one occasion we were told that a person carried a fire before the body so that the smoke "could clear the way for him", but later it was said that he walked behind with the fire, waving the smoke. Whether both statements are true, or whether there is a confusion of a single custom, is not quite sure. The fire was not taken to the grave, anyhow.

At present a dead person is taken back to his village to be buried there, but formerly the burial took place wherever the death occurred. The graves were situated rather far from the villages. Those of poor people were not hidden, but rich persons were put in inaccessible places as for instance rock shelters and caves in bluffs or the like, for fear that the grave should be robbed. Sometimes a chief's body was taken in a skin boat to a pinnacle rock where it was hoisted on top (Fig. 40). The grave was dug into the ground as far as the gravel. The body was placed without a coffin, resting extended on the back, with the arms down the side; the head was to the south and the feet to the north. It was also said that the body was facing the village, but it is not clear how this statement can agree with the former. Coffins, Stepan said, were not introduced till recently, that is "after Noah and the Flood!" Small hunting implements etc. were arranged on each side of the grave, whereas large items were placed on top of it. If a man had no sons, all his equipment including his baidarka was left on the grave. Grave goods were not broken, but according to Stepan they were sometimes burnt, and miniature implements were never buried with the dead. Our informants also assured us that slave offerings in case of the death of a chief, and killing of dogs in connection with the burial did not occur, but there is some slight archeological evidence to the contrary[2]. The grave was marked with a painted digging stick or a wooden shovel. A pole was put up besides, and if there was a tree close by all but the topmost branches were chopped off. Stones were piled on the grave only if the person had been killed. Neither cremation nor artificial mummification were practised (cf., however, pp. 90 and 91), and but for the more elaborate customs bestowed upon a chief, everybody, including shamans, slaves, and transvestites, were disposed of in the same way.

After the funeral the people who had assisted, and all the inhabitants of the house including the children, must take a sweat bath. If the body had been carried to the grave

[1] According to Portlock (1789, 248) the women cut off their hair as a sign of mourning.

[2] Cf. de Laguna: Arch. Rep. (MS).

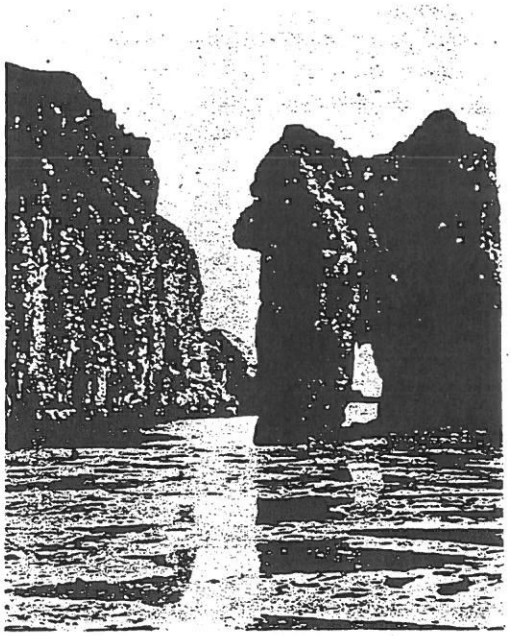


Fig. 40. Rocks off Hinchinbrook Island, such as were used for chiefs' burials. (Photo. K. B-S).

in a boat it did not need to be purified, however, whereas the house was cleaned with gravel. After the death of a child the parents were not allowed to sleep together for forty nights, and a widow could not marry nor go to a dance for the same length of time. During this period food and water was brought to the grave by the relatives of the deceased. The ghost was supposed to return to the village after nine, twenty, and forty days and rap on the window to bid goodbye. It was possible to see and talk to the ghost, which looked like a human being except that it would disappear. People were not afraid of the ghosts as apparently they did no harm.

The foregoing description of burial customs does not agree in all details with the conditions revealed by the archeological investigations. The statement that artificial mummification was unknown is contradicted by the fact that Dall describes the mummy of an adult male from Prince William Sound: "It had been eviscerated through the pelvis, and a string around the neck with a few old-fashioned Russian beads upon it fixed the date as subsequent to the advent of the traders"[1]. In some cases natural mummies have been found in caves, for instance on Knight Island opposite the Pleiades group, and on the northern bank of the mouth of Valdez Arm where six male mummies had been placed in a cave, wearing masks and dressed in ground-squirrel coats and armour. Such mummies are now explained—though evidently erroneously—as the bodies of persons who have not been actually buried but have been killed or have starved to death there, when they had tried to hide for their enemies; such a person is called IRIAQ.

Although true coffins may not have been employed, the burials in the Palutat cave show that the graves might be lined with wooden planks. This also appears from the

[1] Dall 1878, 32.

following description by Vancouver, which furthermore makes it clear that cremation may have been used in some cases: at Point Pigot "a hole was found dug about a foot deep, five feet long, and four feet wide; at the bottom were some thin planks, and across them, nearly in the middle of the grave, two pieces of wood were placed about a foot asunder, and about nine inches thick, between which were deposited the remains of a dead body, rolled up in a seal skin, and carefully tied with thongs of the same material. These remains consisted of some ashes and calcined bones, which were concluded to be human, and as all the parts of the grave shewed evident signs of the action of fire, it is natural to infer, that consuming their dead by fire is the practice of the inhabitants. The relicts thus deposited were covered with another plank, over which were strewed stones, moss and some old broken paddles. The direction of the grave was nearly north and south, with a small pole about eight feet long erected at its south end"[1]. Evidently Merck is not certain about the funeral customs, but it is at least interesting that he says: "*Ihre Toten sollen sie verbrennen*"[2]. From Palutat cave there is some slight evidence of cremation[3], and Fred Allen expressly said that the dead were burnt except some of the prominent men and chiefs—a statement which is at least grossly exaggerated.

At present in Chenega the relatives of the dead have nothing to do with the body. The "second priest" or lay reader places a ribbon with a Russian inscription around the forehead of the corpse and a sacred image on the breast. On some, mostly children, he also puts some gray-blue clay around the face, uttering some words, probably from the Scripture, in Russian. The burial takes place in the morning the fourth day. Until then the corpse is never left alone. The relatives of the dead read the Bible to it and hold wake for the nights. The spirit of the deceased is supposed to stay around the place for forty days after the death. During this period the people get together and drink tea and feast, and the ghost is believed to participate in the celebration. In the grave is buried a cake with a single candle, but Mr. Nonini, who supplied this information, is not sure if food is placed with it.

The graves are marked with tall crosses in Orthodox style, made of two by four inch lumber. On the older graves spruce poles are used. A platform of boards is erected over the grave, and sometimes there is a fence around it with four ornamental corner posts and ornamental pickets. At the head or foot of the grave, or in some cases at both, there is a wooden box, bottom up, sometimes with cheese cloth tacked on. The crosses are decorated with tinsel, crêpe-paper flowers, etc., and tin cans containing live flowers may be seen near the head of the grave at the bottom of the cross. Sometimes there was a cup or a plate there, too. The platform covering the grave is raised a little off the ground on horizontal logs, and on top, on the centre of the platform, is a low, square pyramid of three steps made of wood, with the angles pointing towards the head, foot, and sides of the grave. The son of the chief, who died at the early age of twelve, had a picture of the Virgin and the Child, protected by a piece of glass, set into the cross, and at the foot of the cross a scooter and a toy-boat were placed. Two boxes upside down at the head and the foot of the grave had nothing in them. Scattered on and among the graves were many empty gas cans made into buckets, and numerous seal bones.

[1] Vancouver 1798, III 182 f.
[2] Merck 1937, 133.
[3] de Laguna: Arch. Rep. (MS).

The Village Community.

The most fundamental difference within the society was, of course, the dichotomy according to sex. The main features of the division of labour between men and women may be summarized as follows:

Men	*Women*
	Tending fire and lamps
House building	—
Hunting	(Fishing)
Fishing	Food gathering
(Food gathering)	Flensing
	Cooking
	—
Paddling	Preparation of skin and bark
Working in wood, stone, metal, and bone	Thread making
Thong making	Sewing
	Basket making
	(Shamanism)
Shamanism	—
Ceremonialism	

Apart from this, the differentiation within the community had, however, been carried farther than amongst most other Eskimo tribes. There were hereditary chiefs, and although they were not sharply distinguished from the common people their families seem to have been recognized more or less as a kind of nobility, and at the bottom of the social ladder there was a class of slaves.

Each village, or perhaps a few villages in common[1], had a head chief, tujuq, and a second chief or rather chief assistant, saka·nʃɬk. The head chief could be deposed if he aroused the displeasure of the villagers, but as long as he remained in power he had no little authority. He directed the hunting, and if he himself went on a hunting excursion he was the leader of the party. He always wanted to know where each party was going and how long it intended to stay away, so that he could send a search party for it, if it did not return in time. Apparently he also presided over the meetings of the inhabitants of his village. He sent out the whalers, told people when to put up fish and when to undertake a military expedition, but he was not able to force anybody to take part in a war who refused to do so, nor could he order a man to be killed or take another man's wife. People were also free to move from one village to another within the tribe without asking his permission. A young chief would ask the advice of older people before making a decision, but an old one would not. The chief was considered the richest man in the village, but on the other hand a rich man was not made chief just because of his wealth. The chief never did any work himself, but all others worked for him. Remarkably enough the consequence was that the chief rarely owned any slaves, as he had no use for them—but the correctness of this statement may be questioned. The son of a chief inherited his father's position, and if there were no sons his brother would take his place. If brothers were lacking too, first a brother's son and second a sister's son would be taken into account, and only if there were no relatives at all the second chief would be elected and another

[1] Thus the chiefs at Palugvik were said to have been acknowledged on both sides of Hawkins Cut-off as well as on Mummy Island. There were other chiefs at Port Etches, on Montague Island, etc. Chiefs are mentioned by Dixon (1789, 160) and by Meares (1790, xxviii).

second chief chosen in his stead, but no cases were known of the second chief killing his superior in order to obtain his position.

The second chief or chief assistant could not be related to the head chief "for fear that they might work together". He acted as the chief's servant and summoned the people to the meetings while the chief himself remained sitting in his house.

Chiefs and their relatives were clothed in more valuable furs than ordinary people, but they had no special dresses. One woman, half-Eyak and half-Chugach, and wife of a certain Jack Shephard, was tattooed all over her face and body "because she was noble". The chief and his relatives were so superior that they would hold their noses when passing a fox den (!). "Hold your nose tight, the fox might wet you", was a common expression.

To-day the Chenega chiefs are not hereditary but elected by common consent and work like other people. The second chief in 1933, Willy (Vasili) Selanov, had formerly been head chief, whereas Mikhail Komkov was head chief now. Nevertheless the chief's authority is still considerable, although the catechist was generally considered "the power behind the throne". When some common undertaking, for instance the cleaning of the village, had to be performed, the decision was taken by the chief. The people would often ask his advice and his permission if they wanted to marry, work in Cordova, etc.

When the chief was too old to take part in the hunting expeditions, the villagers chose a foreman, as co-operation in hunting was common, the male inhabitants of a house usually working together, and every large hunting party needed a leader. Makari had been one many times, while a certain Stepan was chief at Nuchek. However, the statements about hunting foremen seem to be hopelessly confused with other statements about what was called aŋauqat, a word which Makari's daughter translated by "king(s)" although he had to obey the chief and apparently only acted as his substitute. On one occasion Makari said that the "king's" position was inherited by his oldest son, or by the richest or most "smart" person in the village, but he ended up by saying that there had only been one "king" in the Sound, Nupatlkertlugoq at Khikhliaq, who died before Makari was born and for whom he was named (cf. p. 86), and he added that there was no "king" before the Russians came. The Russians at Nuchek had "kings" themselves, first Komkov, then Naomov, and finally Spiridon. In these cases the "king's" office was probably an innovation introduced by the Russians and necessitated by sea-otter hunting.

The slaves were often prisoners, taken in the wars with the Kodiak Eskimo, just as the latter might take Chugach slaves. Sometimes the Chugach bought slaves from the Eyak and Yakutat, but otherwise they did not make slaves of them—a statement that sounds strange, as they often fought with these tribes. No instance was known of Tanaina slaves. Enemies taken as slaves were always single persons, *i. e.* not whole families. The first white men who came to this part of Alaska, the crew of a schooner that drifted onto Kayak Island, were made slaves, and people named their dogs after them: "those who were never slaves before". It happened that the Chugach raised orphans to be sold as slaves. The price for a young slave was only five wooden wedges. Meares mentions a case of a female slave, probably Tlingit, being sold for an axe and some glass beads[1].

Slaves used to sleep in the sleeping rooms of the smoke house and were obliged to work for their masters, the men by hunting, chopping wood, etc., whereas the women had to cook, put up fish, pick berries and perform similar duties. The property rights of the slaves are not quite clear; at any rate the implements they used when hunting

[1] Meares 1790, xxvii.

belonged to their masters. They were never tortured or abused, and on the whole they were well treated, so people were not afraid that they would revolt. A thievish slave would get nothing to eat for a couple of days, but was not otherwise punished, and if he attempted rape he was only sent away (?). It happened that a slave escaped. If he succeeded in getting to another tribe the people never sent him back, even though they knew where he came from. A free man might marry a slave girl, and it even occurred that a free woman married a slave. In such cases they became free. Slaves might also marry each other, though they belonged to different masters, but had to obtain permission beforehand. Sometimes a slave was allowed to return to his own people, and a liberated slave was not held in contempt.

Needless to say the shamans occupied a prominent position in the community, but they did not form a separate class, and their activities are discussed elsewhere (p. 126 ff). Here, however, some words on transvestites may be inserted. It is well known that transvestites ("berdaches") were common on both sides of the northern Pacific. Makari knew of no cases of boys raised as girls or men who lived as women, nor of women behaving like men. On the other hand he told of persons half men and half women who were said to be male on one side and female on the other, "like the persons in circus side-shows". A man-woman of this kind was called an ARANU·TIQ and was really supposed to be two persons in one. When he was a young man, Makari saw one in Chenega named Tyakutyik ("What kind of people are those two"), a name also given to the daughter of the Chenega chief. A person appearing in one of the historical traditions was said to be a man-woman (cf. p. 136). They performed the work of both sexes and were, indeed, considered more skilled than ordinary persons as well as lucky like twins, but they could not marry and have children, nor could they become shamans. In spite of the somewhat strange anatomical description there can be no doubt that it really refers to cases of transvestitism.

A Secret Society (?).

Until recently secret societies were unknown among the Eskimo, and whether an organization of this kind really occurred among the Chugach is still questionable, but Margaret Lantis has given definite reasons for believing that the adult males on Kodiak, the Aleutians, and Nunivak formed a society with the object of intimidating the uninitiated women and children[1], and both from Makari and Stepan we obtained some vague and confused statements that may suggest the existence of something of the same type among the Chugach, while on the other hand they may possibly just as well be interpreted in terms of a union of so to speak more casual character.

In Chenega, Makari said, there were six men called AQLAT, *i. e.* "winds". Every night they used to dress in clothes of sealskin and straw (*sic*!) and put on masks representing spirits with queer-looking human faces. These masks were made by shamans, and the spirits of the masks made the wearers behave in a peculiar way, but they went from house to house, entering them unexpectedly. The other villagers were afraid of them and would hurry their children through supper and hide them. Others would crouch by the fire, holding up their thumbs like dog ears, for the AQLAT never bothered real dogs nor people acting like dogs. If, on the other hand, they caught some one hiding, they would beat and abuse or even kill him. One of them, however, by the name of Kangkhain, who took

[1] Lantis 1947, 27 ff.

care of the masks when not in use, tried to quiet his fellows, and people gave him presents for keeping them from doing them harm. Another AQLAQ, Kashungeq, killed his own sister. She was sitting by the fire when they entered, and tried to escape into the sleeping room, but he caught her by the foot and hit her with a braining stone.

The following information was added by Stepan, who was, as formerly told, himself and inhabitant of Chenega. According to him the six men were brothers and lived at Panrhaq. Their name, AQLat, was due to the speed with which they came running. They killed the Chenega people with their bare hands in order to rob them, grasping them and crushing their ribs. Nobody was able to kill them, although assistance was summoned from all over the Sound and even from Kodiak and Cook Inlet. Finally the AQLat got tired, and the Chenega people seized the opportunity to get rid of their tormentors. They prepared a sweat bath and invited the AQLat to join them. Each of them got a partner who was armed with a knife, and thus they succeeded in stabbing them in the back. When one of them was killed he hit the wall with his fist so hard that the whole sweat house collapsed! In Chenega they had, however, a niece who was a shaman. When she discovered that her uncles were dead, she untied her hair and went six times around the fire singing, and each time she went round one of the murderers fell sick and died afterwards.

At another time, however, Stepan's account differed essentially from that given above. Then he said that there were AQLat in all villages, and anybody could join them who applied to the chief, but no one knew who they were. They had secret meetings to which they called each other by the sound of a whistle consisting of two flat pieces of wood with a membrane of gutskin between. They ran around in the villages after dark, wearing masks, and would beat the people or frighten them back into the houses. They themselves never entered a house.

Robert, Stepan's son, gave this account of an unsuccesful attempt to kill one of the AQLat when he was out in a baidarka together with his partner. He was sitting in the aft hole when the other hunter tried to stab him with his big knife, but the AQLAQ immediately threw his own small knife with such a skill that the partner was hit by his own knife and died.

It is extremely difficult, not to say impossible, to arrive at a safe conclusion regarding these conflicting traditions. It is evident that they cannot be entirely unfounded. The curious detail that people sitting with their thumbs erect over their ears was, for instance, told both by Makari and Stepan independently of one another. The same thing applies to the use of masks representing spirits. Evidently they were supposed to be possessed by spirits while they performed their misdeeds. But with this meagre information we will have to stay content. Whether there was a question of six real brothers who misused their strength to keep their neighbours in terror, or whether the term "brothers" refers to a kind of secret fraternity acting along similar lines, such as the statement of their occurrence in all villages suggests, it is at present impossible to decide.

Customary Law.

Each tribe had its own customary hunting grounds, but apparently there was no sharp boundaries between them and nothing to prohibit a party from hunting where it pleased, just as anybody was allowed to take copper and stone for implements wherever he found it. Still it is said that when the Palugvik tribe went whaling either around Port

Wells or at Port Gravina or at the head of Cordova Bay, because whales did not enter their own waters on account of their shallowness, they would have to divide the spoils with the inhabitants of the villages in the neighbourhood. The villages, and sometimes the tribes, had, however, their own salmon places and trapping areas, from where they would chase away intruders. Thus the Palugvirmiut owned a lagoon below Canoe Pass where they used to fish humpbacks. Family hunting territories were not known. Salmon weirs were built by several persons in common, and they alone were allowed to fish there.

The rather intricate rules for the division of game so well known from most other Eskimo do not seem to have been in force among the Chugach. The meat was always common property, being divided equally between the villagers, and just as the inhabitants of a house hunted together so they ate their meals in common. There were no special cuts or sections, and neither chiefs nor whale killers received a greater share than anybody else. At present all persons who come down to the beach in Chenega when a sea lion has been caught will get their share, but no others. This more or less communistic attitude is most pronounced in the winter season. In the fall when they still have their summer wages from the canneries, each family lives by itself. During a starvation period it is allowed to take meat from any cache; afterwards the owner of the cache will be informed, but he cannot claim payment.

Special rules of division only applied to baleen and skins. The whaler who first struck a whale with his lance had the right to the greater part of the baleen. The skin of a sea otter belonged to the man who hit it, and if several hunters struck the same animal, the skin went to the person whose arrow was nearest the tail. "The tail passes the head all the time". This was because the tail was the most difficult part of a sea otter to hit since it travels on its back, side, or belly and is always twisting about. The skins of all other animals belonged to the man who first struck them, and in these cases it sufficed to touch them with anything that left a mark on the skin. If a man had no arrows, or was in a position where he was unable to shoot, he would try to throw a handful of mud on a mountain goat, and he would thus acquire the right to the skin, even if another person killed the animal.

Clothing, hunting implements, tools, etc. were personal property, although as formerly mentioned a slave could not own hunting implements. Each hunter had his property mark made by notching the feathers of his arrows, or marking them with a special sign such as Ш, X, Ƴ or M, the latter being that of Makari (evidently his initial). Baidarkas always belonged to single persons, even if they were intended to be used by two or three paddlers. The same is true of the big baidars, but it is a curious fact that a boat of this kind always was the property of a woman. Only the wives of the most prominent hunters owned them. When they were used on a war party, the husband of the owner steered. Although the houses were built by the men, they likewise belonged to the women. A house was inherited by the oldest child, whether it was a son or a daughter, but if a man acquired a house in this way, his wife was considered the proper owner. If there were several women owners and a quarrel broke out between them, they would cut the house apart and each move away with her share (*sic*!).

It appears from the archeological investigations that a certain amount of a dead person's property was placed at the grave. It must therefore be wrong when we were told that a person's belongings were not buried with him unless he left no living relatives; but perhaps the meaning was that in such a case *all* the property was disposed of in this

manner. Otherwise, if a person expected to die, he might make a sort of verbal will, telling which of his relatives would get what. When a person died unexpectedly, the property would be divided by the parents or by the surviving consort. If a man perished when hunting alone, the finder would bring both the body and the possessions which he had with him back to his relatives.

In spite of the fact that a dying person could dispose of his property according to will, and the nearest relatives among the survivors divided (or perhaps only supervised the division of) the effects, there were nevertheless certain rules of inheritance which seem to have been generally followed. A man's clothing, hunting implements, tools, etc., went to his sons or, if there were no sons, to his brothers. In case neither sons nor brothers were found, his oldest sister's husband was considered. Only if he had no living relatives at all, his widow would dispose of the property as she thought fit. If the dead person was a widower, the property went to the relatives of the deceased wife. A man's baidarka was inherited by his oldest child, whether son or daughter. Of course a woman would not use it herself; if she was single she would let one of her brothers use it first, and afterwards her husband when she married, and if she had a husband already he would use it right away. Inheritance of a woman's property followed the same order—first the daughters, then the sisters, the oldest brother's wife and the deceased husband's relatives. The possessions of an unmarried man passed to his brothers or, if he had none, to his parents. Similar rules applied to an unmarried girl's property, although of course, in this case the sisters took the place of the brothers.

The general attitude towards crime was similar to that found within other Eskimo tribes, *viz.* the injured part had to take the matter in his own hands, and the community as such did not care whether justice was satisfied or not, but on the other hand it was highly interested in maintaining peace between its members. As will be seen from the following, the chief's authority in dealing with crimes was extremely weak, even though a robbed person sometimes complained to him.

Blood revenge was a generally recognized duty, as blood money was not accepted. The duty of avenging the death of a person, whether male or female, rested upon the brothers of the deceased, and the relatives would assist them. It is told that a man from Palugvik killed a rich Chenega man. Anguininguq, his younger brother, wanted to take revenge. In order to grow up and become quick he used to practise running around the gunwales of the baidar while people were paddling. The murderer was a rich man too. When they arrived at Palugvik, the Chenega people brought a young boy with them. They sent him to ask where Lashare, the murderer, lived. He asked every child he played with. The Chenega natives said that they were not coming to fish, they were just looking for the man who killed Anguininguq's brother. Anguininguq had come ashore together with the boy and was carrying a spear. He jumped as he entered the house and killed Lashare without the others interfering. Anguininguq ran out and called:

aja· ja jʌrtɪk	**aja ja . . . .**
la·ʃare	**Lashare**
amilika tuqʌra.	**my enemy I killed.**

The Palugvik people did not say a word to him but let him return to Chenega, and there were never any bad feelings.

It is hardly correct when on another occasion Makari said that a murderer was only

locked up until he promised not to commit any more crimes. If a man killed his wife and hid the body, the whole village would have bad luck, "for in the old days people did not have enough sense to confess" and thus avoid the evil consequences of secret misdeeds. In such a case the villagers tried to discover the murderer, and the wife's relatives would watch for him and kill him when he was alone. Afterwards they would hide the corpse and admit what they had done, and then the bad luck would disappear.

Makari flatly denied cases of wife stealing, although such incidents appear in the traditions (cf., p. 147) and Fred Allen readily admitted their occurrence. It seems that the ravisher would be killed, whereas nothing would happen to the wife. In such a case his relatives would not avenge his death. If on the contrary an unfaithful wife had a child by another man, her husband might kill her, if perhaps he was not content to give her a sound beating. Nothing, however, was done to her seducer (?).

Makari was unable to answer the question how a person of an evil disposition would be punished. He only suggested that the chief might call the inhabitants of the village to a meeting and publicly reproach the man, and threaten to have him tied up for some days. Makari did not know what would be done if the man refused to obey. However, if we may infer from similar cases among other Eskimo, he ran the risk of being killed by common consent, so that the peace of the village was saved. Makari emphasized that a witch would be too potent to be disposed of in this way.

Theft did occur, but mostly from members of other villages. The thief would usually try to re-model the stolen article so as to make it unrecognizable. If nevertheless the owner discovered it in another man's possession, he would take it back, and as a rule the thief would offer no resistance. This finished the case. However, there was once at Nuchek a woman who was in the habit of stealing from her fellow villagers. The chief finally ordered that she should be stripped naked and have all the stolen goods together with a seal stomach filled with seal oil tied to her, and a basketry hat put on her head. While two men held her everybody spat in her face. She felt herself so shamed that although she lived for many years afterwards, she stayed in the bath house and only left it at night.

A male thief in the same village was punished thus: Once he entered a house an old woman sitting there started to sing:

ana·lurʃɨm	Analurshe
ana·lurʃɨm	Analurshe
qikɪʀkuara·ŋa	makes me ashamed,
pitururimine	he was looking at me
taŋknɪrᵗʟua	when I was eating.
ana·lurʃe	Analurshe
ana·lurʃe.	Analurshe.

He immediately left the house, but the children used to sing this song, whenever they saw him. Thus he acquired the nickname Analurshe, *i. e.* "old excrements", and later on he never stole anymore.

A derisive song of this kind could also be made by a man about his enemy. He would then sing it to him, and the opponent composed another song in return. After that they were friends. They did not sing before an audience in a regular singing contest as the Greenland Eskimo did in former times. In more grave cases two enemies might fight with the fists.

Intertribal Relations.

In their capacity of the easternmost outpost of the Eskimo on the Pacific coast the Chugach were in contact not only with other tribes of their own stock but also with several Indian tribes.

Their nearest kinsmen to the west were the Eskimo of Resurrection Bay (Seward or Qutatluq), Nuka Bay, and the Port Graham Eskimo or Nanualirmiut ("people of the lake mouth") on the tip of the Kenai Peninsula. They were also called Unikhkurmiut and probably occupied most or all of Cook Inlet before the Athapaskan advance. The inhabitants of Kodiak were called Qiqtarmiut ("island people"). Inland at Iliamna Lake between Cook Inlet and Bristol Bay lived the Nanuaqparmiut ("people of the big lake"). The Eskimo of Bristol Bay were probably called Aglormiut, although this name was now believed to refer to the Kuskokwim natives, but the very considerable distance to Kuskokwim as well as the fact that the designation in question has often been reported as a name for the Bristol Bay tribe makes the latter interpretation improbable. Somewhere to the westward was also said to live a cannibal tribe, the Adluirmiut ("people of the sea-gull place"?) who used to lie in wait in order to snatch people away and eat them. They were furthermore said to bury the deer they had killed until only the maggots were left, which they cooked and ate. This tribe it has not been possible to identify.

The Tanaina Indians of Kenai Peninsula were called Tayaut, but besides some specific names were in use, for instance the Angakhkitarmiut around Seldovia, and the Kinaut at Kenai or more probably the whole coast between Kachemak Bay and Turnagain Arm[1]. Unfortunately no name was obtained for the Tanaina at Anchorage. Makari considered them very dirty and said that they liked to eat their lice mixed with seal oil, and cooked their food in urine; if a visitor declined to eat it, he would be killed, and—Makari added—"there were many killings around Anchorage". One of the Chugach traditions tells of violent fightings with the Tanaina (p. 139f). In an unpublished manuscript by Hoffman the following Chugach names for divisions of the Tanaina are given: Kanikaligamut, Maltshokamut, and Nanualikmut[2], the last mentioned name evidently corresponding to the one here applied to the Eskimo of Port Graham.

Another Athapaskan tribe with whom the Chugach were in contact was the Ahtena on the Copper River. The band around Copper Center was called Shukturlalit and was still supposed to be cannibals. Those living near Chitina were called Witlit. The Chugach say contemptuously that the Copper River Indians are all humpbacked because they are always paddling canoes in shallow water, and even the cradle boards upon which they are carried when infants cannot keep their backs straight.

Still more intimate was the contact with the Eyak of the Copper River delta. They are called Ungalarmiut or "northeast people"[3] and are still feared for their witchcraft; thus a Chugach girl who refused to marry an Eyak had her face rot away. The Yakutat are also believed to bewitch people. They know a kind of leaves which they chew; then when they blow in the face of a girl they want, she becomes "wild" about them. A part-Russian, part-Sitka Tlingit teaching at Nuchek made all the girls crazy in this way. A Tsimshian took an Aleut girl from a Japanese in the same manner. The Stikine Indians

[1] This region is not included in the Tanaina territory as defined by Osgood (1937, 13 ff.). As, however, these people were definitely described as Indians by our informant, the name may refer to Tanaina roaming across the peninsula from Cook Inlet.

[2] Handb. Amer. Ind., II 716.

[3] For a discussion of the meaning of this name cf. Birket-Smith & de Laguna 1938, 338 f.

Intertribal Relations.

In their capacity of the easternmost outpost of the Eskimo on the Pacific coast the Chugach were in contact not only with other tribes of their own stock but also with several Indian tribes.

Their nearest kinsmen to the west were the Eskimo of Resurrection Bay (Seward or Qutatluq), Nuka Bay, and the Port Graham Eskimo or Nanualirmiut ("people of the lake mouth") on the tip of the Kenai Peninsula. They were also called Unikhkurmiut and probably occupied most or all of Cook Inlet before the Athapaskan advance. The inhabitants of Kodiak were called Qiqtarmiut ("island people"). Inland at Iliamna Lake between Cook Inlet and Bristol Bay lived the Nanuaqparmiut ("people of the big lake"). The Eskimo of Bristol Bay were probably called Aglormiut, although this name was now believed to refer to the Kuskokwim natives, but the very considerable distance to Kuskokwim as well as the fact that the designation in question has often been reported as a name for the Bristol Bay tribe makes the latter interpretation improbable. Somewhere to the westward was also said to live a cannibal tribe, the Adluirmiut ("people of the sea-gull place"?) who used to lie in wait in order to snatch people away and eat them. They were furthermore said to bury the deer they had killed until only the maggots were left, which they cooked and ate. This tribe it has not been possible to identify.

The Tanaina Indians of Kenai Peninsula were called Tayaut, but besides some specific names were in use, for instance the Angakhkitarmiut around Seldovia, and the Kinaut at Kenai or more probably the whole coast between Kachemak Bay and Turnagain Arm[1]. Unfortunately no name was obtained for the Tanaina at Anchorage. Makari considered them very dirty and said that they liked to eat their lice mixed with seal oil, and cooked their food in urine; if a visitor declined to eat it, he would be killed, and—Makari added—"there were many killings around Anchorage". One of the Chugach traditions tells of violent fightings with the Tanaina (p. 139f). In an unpublished manuscript by Hoffman the following Chugach names for divisions of the Tanaina are given: Kanikaligamut, Maltshokamut, and Nanualikmut[2], the last mentioned name evidently corresponding to the one here applied to the Eskimo of Port Graham.

Another Athapaskan tribe with whom the Chugach were in contact was the Ahtena on the Copper River. The band around Copper Center was called Shukturlalit and was still supposed to be cannibals. Those living near Chitina were called Witlit. The Chugach say contemptuously that the Copper River Indians are all humpbacked because they are always paddling canoes in shallow water, and even the cradle boards upon which they are carried when infants cannot keep their backs straight.

Still more intimate was the contact with the Eyak of the Copper River delta. They are called Ungalarmiut or "northeast people"[3] and are still feared for their witchcraft; thus a Chugach girl who refused to marry an Eyak had her face rot away. The Yakutat are also believed to bewitch people. They know a kind of leaves which they chew; then when they blow in the face of a girl they want, she becomes "wild" about them. A part-Russian, part-Sitka Tlingit teaching at Nuchek made all the girls crazy in this way. A Tsimshian took an Aleut girl from a Japanese in the same manner. The Stikine Indians

[1] This region is not included in the Tanaina territory as defined by Osgood (1937, 13 ff.). As, however, these people were definitely described as Indians by our informant, the name may refer to Tanaina roaming across the peninsula from Cook Inlet.

[2] Handb. Amer. Ind., II 716.

[3] For a discussion of the meaning of this name cf. Birket-Smith & de Laguna 1938, 338 f.

were feared on account of their fierceness, for which reason they were called Aqlut, *i. e.* "killerwhales"[1]. The Stikine Indians also fought the Yakutat and took one of their villages called Tlaraq[2].

Intertribal relations were, of course, both of a peaceful and warlike nature. According to Shelekhov the Chugach sometimes exchanged hostages with the Tanaina and Eyak[3]. The early voyagers have given some account of the customs when they met the Chugach, but if they were followed whenever foreigners were encountered or only in the case of white men it is now impossible to decide. Cook relates how he saw two baidars with Eskimo who were "hollowing aloud, and alternately clasping and extending their arms, and in a short time, began a kind of song exactly after the manner of those of Nootka. Their heads were also powdered with feathers. One man held out a white garment, which we interpreted as a sign of friendship; and another stood up in the canoe, quite naked, for almost a quarter of an hour, with his arms stretched out like a cross, and motionless"[4]. On another occasion he mentions a two-men baidarka: "Each of these men had a stick, about three feet long, with the large feathers or wing of birds tied to it. These they frequently held up to us; with a view, as we guessed, to express their pacific disposition"[5]. According to Shelekhov, visitors arrived with shouts and dance[6]. European ships were generally received with the greeting "lali"[7]. Merck reports as follows: "*Der erste* [Chugach], *der an Bord kam, begrüsste den Befehlshaber, indem er mit erhobenen Armen je einmal Wange an Wange drückte, während die übrigen, die sich in meistens zweisitzigen Kajaks eingefunden hatten, dazu abwechselnd riefen* 'lali', *d. h. erbarme dich*!"[8] It may be added that according to Makari it was customary to weep when two parties met and some of their relatives had died in the meantime. Nose rubbing was, as among other Eskimo, a common token of affection and is still so to-day.

To some extent trading was carried on both among the Chugach themselves, and among the Chugach and their neighbours. It is true that the great trading feasts and elaborate ceremonial described from their kinsmen at Bering Strait were unknown here, but Shelekhov cites an example of how far-reaching the trading connections might nevertheless be: among the Yakutat he saw a slave boy from Kodiak who had been captured by the Tanaina and sold by them to the Chugach who traded him to the Eyak who in their turn passed him on to the Yakutat[9]. 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[10]. Walrus tusk does not seem to have been traded.

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,

[1] Our interpreter gave the translation "blackfish", but this cannot be correct; not only is the word the ordinary name of the killerwhale among all Eskimo, but besides the real blackfish is a peaceful animal which could never be used to characterize an especially savage tribe.

[2] Evidently identical with Hlahayik (Handb. Amer. Ind., I 552).

[3] Schelechof 1793 a, 218.

[4] Cook & King 1785, II 354 f.

[5] Cook & King 1785, II 357. Cf. Ellis 1782, II 241 f.

[6] Schelechof 1793 a, 219.

[7] Dixon 1789, 146. Vancouver 1798, III 164. Sarytschew 1805–06, II 43.

[8] Merck 1937, 133.

[9] Schelechof 1793 a, 232.

[10] Holmberg 1856, 366.

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.

It seems that the most important trading was with the Ahtena. Sauer mentions a large river (*i. e.* Copper River) along which the Chugach travelled fourteen days in order to buy canoes, knives and other copper implements. The Ahtena also supplied the Chugach with caribou skins. Sometimes the Ahtena themselves visited the coast. They used to come to Nuchek in open skin boats holding about ten persons each and buy one or two sealskin baidars. Once when they wanted two baidars they could only get one at Nuchek. Most of the Eskimo were at that time at Strawberry Point. So the Ahtena came there and bought the big boat belonging to the chief, paying for it with five squirrel coats, ten wolverine, three silver fox, five black fox, five lynx, five wolf, five black bear, and five caribou skins; the latter were cut up by the chief who gave a piece to every one. The Ahtena were so content with the bargain that they started to dance.

It is needless to say that the Chugach in later times also traded with the Russians, not only with furs but also for instance exchanging copper for iron. Blue beads were especially appreciated[1].

However, peaceful relations were far from being the general state of affairs between the Chugach and their neighbours, and Zaikov says that there was continuous warfare between the Pacific tribes[2]. In fact, most of their historical traditions refer to feuds between the Chugach villages, or between the Chugach and other tribes, Eskimo as well as Indian (cf. p. 135ff). In contradistinction to most other Eskimo they had special arms of war beside the ordinary slings, bows and arrows. Thus there were bone stilettos, daggers of stone or copper, the latter with a double edge and a wrist strap, and sometimes provided with a small, second blade at the end of the handle, a type well-known from the Tlingit. Cook noticed such daggers, two feet long, hanging in a skin sheath from the owner's neck[3]. Portlock says that the Chugach were armed with spears, sixteen to eighteen feet long and tipped with iron, bows and arrows, and long knives[4]. Two late-prehistoric double-pointed stone picks found during our excavations show that the Chugach had also adopted this typically Northwest Coast weapon. They likewise made clubs of hard drift wood. A peculiar weapon corresponding to the *bola perdida* of the Patagonians was used to hit people over the head when they were coming out of their houses. It consisted of a heavy, grooved stone tied to a thong about 2 m long. It was thrown like a ball, or the thong was fastened to the man's wrist and the weapon used as a braining stone. In fact, Makari's brother said that a murderer would lie in wait on the top of a smoke house and knock his victim down when he came out to do his business. Ordinary slings were also used in war.

The principal defensive weapon was a rod armour made of round wooden sticks tied together and reaching to the armpits. It is described by Sauer in the following terms: "This is made of very neat pieces of wood, about half an inch thick, and near an inch broad, tied very artfully together with fine threads of the sinews of animals; and so contrived, that they can roll it up or expand it. This they tie round the body, a flap before reaching down their thighs; but so made as to rise or fall, and permit their sitting in baidars: a similar flap hangs on the breast, which may be risen as high as their eyes.

[1] Cook & King 1785, II 397. Ellis 1782, II 243. Sarytschew 1805–06, II 43.
[2] Saikof 1782, 284.
[3] Cook & King 1785, II 373. Cf. Ellis 1782, II 239.
[4] Portlock 1789, 253.

Straps fasten this armour on their shoulders, and strings tie it round the body on one side"[1].

There was no tradition of helmets worn together with the armour, but Sauer mentions wooden helmets in the shape of bears' heads and completely covering the head of the wearer[2]. He also noticed that the Chugach had a kind of shield like a large screen that was able to cover twenty or thirty men and resist a bullet[3], but at present this type of implement is completely forgotten, if it was not to that Fred Allen alluded when he said that the war baidars were protected by wooden shields hung around the outside of the bow and along the sides.

In wartime people took refuge on certain steep rocks where they had houses and provisions. Access was possible only by means of ladders of notched tree trunks that could be drawn up to prevent the intrusion of the enemy. There were no stockades as among the Eyak, Tlingit, and other Northwest Coast tribes. Another kind of ladder more like ours was also described, but narrower and with steps tied on to the side pieces with spruce roots; this type, however, is likely to be a recent innovation. Refuge rocks are mentioned by Meares[4]. To-day such rocks are pointed out at Johnson Point on Hinchinbrook Island and at the northwest end of Canoe Pass at Hawkins Island.

War was decided upon by the chief, who would call the inhabitants of the village to a meeting and reveal his plans. He could not force anybody to go to war if they did not want to do so, but he would tell the persons willing to follow him to look out for those who refused and kill them (*sic!*). The warriors painted the whole face with black paint, never with red, which was reserved for the feasts. This was done in order to prevent the enemy from telling from their expression if they were afraid (*sic!*). The war party set out in baidars and used to attack early in the morning when people were asleep. The war cry was "aŋile, aŋile", fight hard, and "pilu·tɩn", go ahead. They tried to set fire to the enemy's house and robbed everything that belonged to them. Women and children were not killed in the fight but carried off as slaves. Makari knew nothing of head trophies, but Stepan mentioned that the heads of the fallen enemies were brought back to the village and kept in a wooden box outside the house. When everybody had seen them, they were buried in a distant place. There was no formal way of making peace.

According to Stepan a man who had killed an enemy had to refrain from food and sexual intercourse for five days and nights unless he had eaten the heart of his victim. When the five days were over, he ate a sawbill duck before taking up the ordinary routine of life. On victory feasts see p. 113.

Stepan also told of a special kind of warrior called tuknixraq, "strong man", piar^{9}leq, "fast man" *i. e.* one who can parry an attack, or cakxueq, "a brave" or "a man who is never afraid". A "strong man" was armed with a short stick made of a heavy branch; it was used as a club with which he warded off arrows when he heard the whirr of the bow string. In every village there was always one, or sometimes two or three "strong men" who seem to have formed a remarkable parallel to the *e'rmačɪn* of the Chukchi.

A rather confused tale of a fight that came to nothing on account of an exchange of "strong men" was related by Stepan. A war party came to a village and wanted to kill the inhabitants. The village chief had been informed beforehand, however, and called to the chief of the attacking party: "Are you sure you come here to kill my people?" He

[1] Sauer 1802, 199. Cf. Cook & King 1785, II 372.
[2] Sauer 1802, 199.
[3] Sauer 1802, 198.
[4] Meares 1790, xxvii.

asked thus many times and every time the answer was yes. Then he said: "Why do you come to kill us without trouble? All right, I and all my people are ready". He and his assistant chief told the villagers what to do. The chief ordered his assistant to take a drum up to the rook of the smoke house and hit it five times. This was the signal for the men to get prepared for the fight. The attackers were not ready, however, so they got afraid and went away and locked their chief in (?). Then the chief of the party was told by the village chief that he wanted to dance (or vice versa, this is not clear). They all started to dance, one from each side together, and as they were dancing the foreigners tried to steal the strong man of the village, but he escaped and got back to his own people. So they let him alone. This one man licked the five men (who tried to kidnap him?). The chief of the warriors then said to the chief of the village that they wanted the strong man, and the village chief told him to go with the others, who then took him for their chief (?). They began dancing again, and the villagers took one (strong) man from the other party. So they traded the two strong men, and thus they were not able to fight, and the foreign party left.

Several examples of fighting are given in the tales (cf. pp. 135 ff). In 1805 the Chugach killed a war party of the Yakutat who had planned an attack on the Russian settlements in Prince William Sound and Cook Inlet, while others were massacred by the Eyak[1].

Games and Pastimes.

The Chugach knew numerous forms of recreation, but it should be remembered—as will appear from the following—that often magical purposes were combined with what to a superficial observation might be considered mere play. Also the tales told by old people to their grandchildren during the long winter nights had a serious background, since they were intended to instruct them in the lore and ethics of the tribe. Some games otherwise common among the Eskimo were, however, unknown here. Thus neither football (?), ring-and-pin nor roulette were played, and the same is true of the special Central Eskimo game of nuglutaq.

It is not possible to draw a sharp line between the pastimes of children and grown-up persons. This may even apply to the dolls, both wooden and stuffed, which Cook saw among the Chugach[2], for it is told of the natives of Kodiak that childless women had dolls "to represent the wished-for offspring, and amuse themselves with them, as if they were real infants"[3]. The wife of a certain shaman is said to have had a doll of this kind (cf. p. 128).

In the summer the girls often used to juggle with two to four pebbles as they were walking along the beach; there were special songs to each movement, but unfortunately we failed to obtain any of them. Blind man's buff was played at any time of the year. Both young and old people amused themselves playing hide-and-seek in the long grass; probably it was thus confined to the summer, but only for practical reasons. Other forms of pastimes belonged to definite seasons, because they were supposed to have magical influence on the events of the year. At the end of the winter, *i. e.* after the winter solstice, tops were spun in order to hasten the return of the sun, but they were put aside as soon as the first salmon run began. There were two kinds of tops. The larger type was made

[1] Krause 1885, 53 f., citing Khlelnikov.
[2] Cook & King 1785, II 372 f.
[3] Lisiansky 1814, 178.

of a single piece of alder wood, shaped like an inverted cone and painted red. A string was wound around the point, the other end of it being passed through a hole in a stick, and by this means the top was spun. It was always done in the open air on the ice. The smaller toy consisted of two pieces, a pointed stick and a wooden disk. It was used indoors by teams of two men each, who bet on the outcome. The players would spin it with the hands, each one singing: "acaŋacalι, caujumən" (spin, point to him) as he released the top. The team of the person to whom it pointed would win a counter. Twelve stick counters were provided for each side. The game was over when one set of partners had won all the sticks. A buzz, consisting of a disk scalloped on the edges was also used at the end of the winter to make the sun come quicker. Bull roarers likewise belonged to the spring season. The ordinary hand game (cf. p. 107) was a typical summer pastime, because it delayed the movement if the sun.

A play similar to "ring-around-a-rosie", performed in imitation of the circling of the birds, was played by girls and women only in the autumn when the birds migrated south, or after the sandhill cranes had arrived. It was common at Nuchek. The players joined hands in a circle and skipped around in the direction of the sun, singing:

qile·	Circle around
ʃaɢanicι	stretch your arms
niŋaija	....
niŋaija	....
jaɢa·le·	....
a·haijəŋa	....
haijəŋa	....
rulí·ma	....
haijəŋa.	....

Then they all squatted on the ground as they sang:

cɪqleʟqutuq	....
kaiʟununʌqu?	How did he get up there?
kaʟqitu·n	....
qɔʀlolu·ni	like a waterfall
qajici	....

String figures ("cat's cradle") were supposed to tangle the legs of the sun and were therefore made in the autumn to delay its disappearance. Boys were not allowed to play this game, because their fingers would get entangled when shooting with bows and arrows if they did so. Songs were sung while playing.

Both men and women vied each others in various sporting contests. Thus, both baidars and specially built(?) baidarkas were used in racing. Only two baidarkas raced at a time, and on such occasions the double-bladed paddles were always used. Women raced in baidars, and if one of the paddlers began to tire and slow up, the woman sitting behind her would strike her on the head with her paddle. The Chugach never challenged the Yakutat to a boat race, as the Indian dug-outs were too fast. Foot races were also common, usually to a mark two or more miles away and back again; they ran for fun only, never for bets. There were also swimming races and diving contests but, as in the case of foot racing, not for bets. They swam dog-fashion, although the fastest swimmer, a man named Angasha, who could keep up with a three-man baidarka, used the European side stroke. Stepan, our Chenega informant, was a good swimmer too.

In wrestling, the partakers in the contest started by grasping each other by both hands, but then tried to shift to a "bear hug" with the arms around the opponent's waist. The match was over as soon as one man was taken off his feet. The loser was said to be "knocked down", amaqaqa. However, wrestling was not the sole method of trying one's strength. Two men would, for instance, hook their middle fingers, their arms, or their legs together and pull with all their might. This is called taktaLuk, kalukIRTA·RULUK and CARILḴŊAERTA·RULUK respectively. Somewhat similar contests were performed by putting a thong around the heads (niŋUQTA·RULUK) or by pulling on a short, round stick (uḴMIRTAQ); in the latter case the person who kept the stick won the game.

A man might also lie down on his back with his legs straight up in the air, and another person would try to stand on the lying man's feet (kaŋa·TAruäk), or a man would lie down, arching himself so that he was supported only by his head and feet; another person would then hold an upright knife under his back, and the first-mentioned man should try to rise without falling back on the knife (t°xənq°tAr'Lutiŋ). Still other methods of showing one's dexterity consisted in hanging by the hands from a horizontal pole and swing the legs up between the hands and the pole (ɪnɪtAr'Lutiŋ), or a man would run to the pole, catch it in his hands, swing his legs up until he was supported by his feet, and let go his hands, thus hanging upside down (kanAr°mäŋ-ɪnɪtAr'Lutiŋ). Rolling down a slope (numɪkArtAr'Lutiŋ) was likewise used. These types of games could be played at all seasons.

Both men and boys used to swing on a long rope tied to a tree or to a projecting rock. A favourite place for this kind of amusement was the bluff near the kittiwake rocks at the mouth of Boswell Bay. Swinging was started only after the puffins had arrived.

High jumping was performed by a man from a standing position, both feet together. Two persons held the rope to which a sealskin was attached at the middle, and for each jump the rope would be raised until the jumper missed, when he would change place with one of the men holding the rope. Another kind of rope jumping was combined with betting. A sealskin rawhide was rolled into a round rope. Two men turned it over and back, faster and faster, while two others jumped, betting on who would continue longest. When the rope was swung back and forth, necessitating two jumps on each cycle, the game was called ujixtaqulutɪŋ, whereas when only one man jumped and the two persons swinging the rope bet on how long he could last, the name was amLIləwaʃala. When a man was jumping by himself over a stick which he turned in his hands, it was called aqaŋxaqaʃʋgalunɪ.

Men and boys played with bows and arrows after the wild geese had returned but stopped in the autumn. At a shooting match there were two teams, usually of ten persons each. The target was a small circle of black painted on a board, or sometimes a reed stuck into the ground. The teams stood in two parallel rows pointed to the target, so that the men at the far ends of the rows had to shoot up in the air to avoid hitting their team mates. This gave them practice in sea-otter hunting. Each man bet against an individual opponent. Twelve stick counters were used, two being given for each direct hit. The Chugach had sometimes matches with the Yakutat whom they considered "bum shots —too stubborn to learn". The Eyak were also miserable at shooting, but the Ahtena around Chitina were crack shots ("oh-oh-oh-oh!"); they held the bow vertically and grasped the arrow between the middle knuckles of the fore and long fingers. The Kodiak Eskimo were good shots like the Chugach.

Hoop-and-pole game was played by two teams with any equal number of men. The hoop was about $^3/_4$ m in diameter. It was rolled by a neutral person who also kept the

score. The players tried in turn to throw a long pole through the hoop while it was in motion, first a man from one team and then a man from the other. Twelve stick counters were used, and one score was counted for each time the hoop was pierced. This game was played only in the spring and summer after the snow had left the ground.

Shinny was likewise played by two teams with an equal number of members. Strawberry Point was a favourite playing ground, the field extending from the sandspit nearly 1 km along the beach. Three lines were marked in the sand with equal distance apart, the end lines serving as goal lines and the centre line as a starting mark. The ball was made of wood, spherical, and about the size of a tennis ball. Each player had a naturally curved stick, or—but that seldom happened—he might carry a stick in each hand. The game was started by two men, one from each team, who tossed the ball back and forth between them, singing while they did so. The other players were seated a few feet away around a circle consisting of a rawhide line placed on the beach. Suddenly one of the tossers threw the ball into the circle, and a neutral person buried it a few inches in the sand at the spot where it fell down. As soon as he stepped back the players rushed in and dug for it with their sticks, and the game was on. Anyone might hit the ball with his stick, the object being to drive it over the opponents' goal line. One goal constituted a game. If the man who happened to uncover the ball was the fastest player on the field, he might run the entire length of it and score a goal without being undertaken, but this was rare. The players were often hit on the legs and might sometimes even be knocked unconscious in the heat of the game, but they took it as part of the sport and bore no hard feelings. Bets were usually placed on the game that could be played at any season, but as a rule it was a summer recreation. Sometimes the Chugach had shinny contests with the Yakutat and Eyak.

The stick-tossing game was played by two men who bet on the outcome. Eleven small sticks about 16 cm long were used, one of which, the "chief" (aŋauxuat) was marked with two groups of two notches each near both ends. A set of this kind, P 544, is in the Copenhagen museum. The sticks were held in the palm of the right hand, then tossed up and caught on the back of the same hand, tossed again, and a stipulated number of them caught between the thumb and the other fingers. If the correct number was caught, the player kept them, but if the "chief" was among them, he put it back and took two other sticks instead. Then he tossed again. As soon as he caught either too few or too many the opponent took the remaining sticks and tossed himself. When one stick only was left, it must be held between the thumb and the forefinger, tossed up and seized between any fingers, the palm of the hand being held downward. If he won a majority he was allowed to jab his opponent on the wrist as hard as he desired with the butt end of the stick bundle, and as many times as his majority. This was done to make the opponent's wrist so sore that his efficiency would be impaired. During the first game one stick must be caught each time, during the second, two, and so on up to eleven. The stick-tossing game was played in the late summer after the silver-salmon run had started, in order to tangle up the sun and make it recede more slowly.

In the grass-bundle game a bundle of grass was tied up into a pointed cylinder about 8 cm in diameter and 2 m long or more. Two teams of five men each stood in two lines facing each other, about 7–10 m apart. Every man had a pointed stick 2 m long. The grass bundle was tossed and caught back and forth on the sticks, a team receiving one

of the twelve counters whenever a member caught the bundle. Each player bet against the person who stood opposite.

When playing rock game, two teams of two, four, or eight men stood on the beach as far apart as they could conveniently throw a stone. Each player had five pebbles which he threw at a rock placed in the centre of the opposing team. Twelve counters were used, and for each hit a man received two. The team that first got the majority of the counters won the game. The betting was individual, each man betting against the opponent directly opposite. A variant of this game is still played at Chenega. Two sticks about 15 cm long are stuck in the sand, 15 m or thereabout apart. All the players stand at one stick and throw stones at the other one in turn. A direct hit gives two counters, and if a man comes closer than his opponent he scores one counter.

In the partner game two sets of partners were seated in a square, each man opposite to his partner. Each team had five hemispherical balls, 4 cm in diameter and made of wood, which they tossed alternately at a chip (at present often a small slip of paper) in the centre. The object was to land the ball directly on the chip, or to push off the ball of the opponents. The team whose ball remained on the chip, or whose ball was closest to it after all ten balls had been thrown, was the winner. This game was played both summer and winter, indoors or out, but usually to while away the time on hunting trips. When a young man, Makari and his friend were members of a sea-otter hunting party on Montague Island when two old men, champions at the partner game, challenged them. The young people, however, won easily, Makari getting a gun and his friend a bunch of arrows. The old men felt annoyed and never asked them to play again. For a long time afterwards Makari was a top-notch player and won much hunting gear and clothing.

The Chugach were inveterate gamblers and knew several games of chance. They had a short stick carved with a seal's head at one end and a sea otter's head at the other. It was held in the hand so it was hidden, and the opponent had to guess which end was up. They might also use an ordinary stick which was held in the hand of one of a number of men sitting in a circle. The others were supposed to guess in which hand he kept it. As formerly mentioned this game was played in the summer.

The stick game (not to be confused with the stick-tossing game) was played by two teams of five persons each, seated in two parallel rows facing each other and about 3 m apart. Twelve counters were placed between them. Besides, two sticks were used, just long enough to be concealed comfortably in the closed hand. One of them, the "chief" (aŋauxuat) had a groove cut around near each end, whereas the other, the "second chief" (saka·nʃik), was thinner and had a groove in the middle. A man on one end was given the sticks first. He shifted them for a while behind his back, then rose and started to sing and dance, moving his hands from back to breast. Finally he placed one clenched hand on his chest, the other on the small of his back, with one stick concealed in each and shouted: "mənde!" The man opposite to him tried to guess in which hand the "chief" was, calling out: "manumi!" for the hand in front, or "amani!" for the hand behind. A correct guess won a counter, a wrong guess lost one. The sticks then went to the person opposite, and thus proceeded back and forth down the lines until each member of both teams had had his turn, the man opposite guessing each time. A game was completed only when all counters both from the centre and from the opponents' piles were won. Each player arranged a bet of clothing, blankets, hunting implements, etc., with the person

directly opposite to him. Usually the members of a team belonged to the same village. This game was often played with the Yakutat, even before the Russians arrived.

A kind of dice was played with a land-otter humerus, and in a tale of a fight with the Kodiak Eskimo it is used for divination (cf. p. 139). If it stands on the proximal end it counts ten, if it falls on the dorsal side the count is one. Other positions do not count but are supposed to mean "you sleep too much". It cannot possibly stand on the distal end as in the story. Land-otter bones are like brown bears, especially the humerus; they can "almost talk". One is not supposed to play too much with them, because the Kodiak people were killed. Ordinary dice were played by two men with an irregularly shaped, flat piece of wood. Twelve stick counters were used, the winner receiving one, three, four, five or ten according to the end on which the die landed. No score was counted for the flat side. It was usually played for bets and at any time of the year. The nicely carved bird figures used as dice of the Neo-Eskimo were not known.

In conclusion the following account of a sporting contest between the Yakutat and the Chugach may be given. It happened when Makari was a very small boy and the Indians came to Strawberry Point to play shinny with the Eskimo. The best player among the Chugach was Uqiq, who lived on Mummy Island. He was the brother of Makari's grandmother and quite an old man, but although he had one leg shorter than the other he was very agile. He played with a stick about the length of his fore-arm in each hand. Everybody else had only one stick, because they were not quick enough to use two. The Yakutat were afraid of him. They never could win when he was playing, and whenever they passed Mummy Island they would say: "There is where Uqiq lives, the great shinny player". Uqiq stripped off his coat. He poked and jabbed with both sticks, jumping around and scrambling in and out between his opponents' legs. He could take a ball away from six Yakutats without they being able to catch him. So he soon won the game for the Chugach. The Indians became rather vexed and wanted to run foot races. The fastest Eskimo was Yulaq from Montague Island. He could beat all the Indians easily. The Yakutat got very annoyed. They wanted to win at something and challenged the Chugach to wrestling matches. They had a small man named Niuqut who was not very strong but ususally won all the wrestling matches, because he chewed some kind of leaves and blew into his opponent's face, and so he lost all strength. He wrestled with Makari's elder brother who was a big, strong man. When he blew in his face, the other one felt his legs grow weak and cave under him, and so he lost.

The Eskimo never chewed leaves when they wrestled; they neither knew about them nor did they like the idea (cf. however, p. 119). Yulaq, the foot racer from Montague Island, lost a race once. A man from Tatitlik challenged him to a race uphill, and Yulaq could not run so fast uphill and was beaten.

Festivals.

The festivals of the Chugach were essentially social events. A religious element was never entirely absent, and in a few cases it was very conspicuous, but even so the social aspect probably predominated. As a whole, however, ceremonialism was rather weak and not to be compared with the elaborate rites of the Bering Sea Eskimo.

The principal ingredients of any feast consisted in singing, dancing and—not least, of course—extravagant eating. Some feasts were also combined with a distribution of gifts

as the Indian potlatches, and in some cases masks were worn. Lisianski describes the dance of the men as torsions of the body; everyone except the chief carried a paddle in his hand, and the hair was powdered with down[1].

Drums and rattles were the sole musical instruments except, perhaps, for a whistle of which a single specimen of bone was found during our excavations[2]. The drum was a tambourine consisting of a hoop over which was stretched a piece of depilated sealskin or a halibut stomach, sometimes painted with figures representing the shaman's spirit helpers. Like other Eskimo drums it had a lateral grip, but in contradistinction to the ordinary type the grip continued across the back of the drum. It was said that puffin beaks might be attached to the drum. The drum stick was made of wood and had a round head with which the skin—not the hoop as among the Central and Greenland tribes—was beaten in time with the singing. There were two different types of rattles. One consisted of one or more concentric wooden rings to which puffin beaks or—if we may believe Cook[3]—barnacle shells were attached, fastened to a cross grip of thin sticks. The other kind of rattle was of the ordinary Northwest Coast type, *viz.* a sub-spherical or bird-shaped container with a few pebbles inside and a short handle. During the dances the rattles were used in pairs.

Masks were worn on several occasions, for instance at certain feasts and shamanistic performances. They were carved in wood, sometimes in animal shape, and painted. Some had a queer or comical look, with only one eye and a crooked mouth, while others had a knife or a bone carved in the mouth. Eagle down (or feathers?) might be glued around the edge. Finger masks were not known. Women had their own masks and rattles, which the men took care of as well as their own, hiding them in a cave to keep them away from the young girls. Once, Makari said, several masks had been found on Mummy Island, but unfortunately they were all destroyed. The only Chugach masks known to exist at the present day are seven specimens collected near Port Etches for the United States National Museum in Washington, D.C., (museum numbers 20263–69). They were described and illustrated by Dall[4], but as his woodcuts are slightly incorrect in a few details I am grateful to be able to include photographs of them in this report (Fig. 41). The following particulars may be added:

20263. Size ab. 46 by 31 cm. A few circular dots of red paint below the right eye are not shown on Dall's figure. They are probably the "attempt to furbish up the old painting by daubing on a little vermillion" referred to by Dall.

20264. Size ab. 49 by 28.5 cm.

20265. Size ab. 66 by 23.5 cm. Probably Aleut.

20266. Size ab. 44.5 by 31 cm.

20267. Size ab. 41 by 32.5 cm. The red blotch under the left eye mentioned by Dall does not show on his figure. It has the shape of a curved line running from the nose to the edge of the mask.

20268. Size ab. 44 by 34 cm.

20269. Size ab. 44 by 31 cm. The lower parts of the green stripes on the forehead are

[1] Lisiansky 1814, 153 f.

[2] Fred Allen mentioned "a crude stringed instrument", but that must be a post-Russian type.

[3] Cook & King 1785, II 373. On puffin-beak rattles from Kodiak see Birket-Smith 1941, 159.

[4] Dall 1884, 124 ff, cf. pl. XXIII–XXV. Cf. Dall 1878, 32. Jacobsen also found a few masks in Prince William Sound (Woldt 1884, 381, 383). I did not see them in his collection in Berlin and can give no information about them.

much broader than those figured by Dall, and there are traces of red paint both at the upper ends of the stripes and below the right eye. The nose is green in its entire width.

In the winter people might arrange a dance at any time simply for amusement. The men danced first, afterwards the women, the latter having their own songs. The arrival of visitors from neighbouring tribes who came to Nuchek during the summer for trading also gave occasion to dancing feasts. Whoever came first would begin the dance. If the Kodiak Eskimo were the first visitors to arrive, they would dance the first evening and then the Nuchek people. Next evening the Yakutat might dance with either of the two parties. Only two sets of people danced any evening. If no Yakutat were present the inhabitants of Nuchek often imitated their dances which seem to have been greatly appreciated. When the Yakutat themselves took part in the performance they wore decorations of cedar boughs around the hips and heads, or they were clad in breech-cloths and had feathers on their heads and painted faces. Some of them were dressed in Pendelton blankets decorated with buttons, or a chamois-skin shirt and fringed trousers, the shirt outside. The feet were bare except sometimes when they were walking outside and therefore pulled long boots over their trousers. The Kodiak natives wore "ordinary" clothes (*i. e.* similar to those of the Chugach?), whereas the Adluirmiut appeared in goatskin cloaks and hair bands, carrying long poles decorated with wooden duck figures that flopped during the dance. They wore no masks. The Chugach themselves were dressed in their best fur clothing: sea otter, marten, and ground squirrel.

Feasts were generally celebrated on the occasion of "first events", for instance when a boy killed his first game, when a new baidarka or baidar had been built, or the like. The first time a youth had been successful in hunting, nobody would speak about it, but the boy was dressed up like a baby and his mother sang a lullaby to him. Two old women then made a show of the hunt, one of them wearing a mask carved like the animal and carrying a seal stomach filled with blood (p. 87). The first time he killed a seal or a sea lion, a sea otter, a bear or even a ground squirrel he had to fast for three days, and the meat was distributed among the villagers. Makari expressly stated that this did not apply to the killing of the first mountain goat. Similar customs also prevailed for girls, although it is not clear at what occasions. However, once when Makari's daughter was very small and had been dressed, two old women appeared, disguised as men, and one of them threw off all her clothes and was handled as a baby. They had to be paid with furs. Probably it was believed to bring good luck.

When a baidarka had been finished, the man who built it made a feast. After eating, both he and his wife started to dance. While everybody present in the house were singing, accompanied by drumming, the man showed them that the baidarka was his work and sang that he was the soul of a brown bear. Unfortunately the latter point was not properly explained. A similar feast was celebrated after the completing of a baidar.

Makari told the following tragical incident connected with one of these "first events" that happened at Palugvik on Hawkins Island. Two old women living on the east point and of high rank—"kind of queens" as Makari expressed himself—heard that the young girls on the west point "had done something" and came over to dance. Their names were Nangiertula and Aqtlerushki. They wore earrings, a nose pin, and labrets and had propped their eyelids and mouth open with little sticks, evidently to give them a funny appearance. It was evening when they started to paddle across the small bay in a wooden canoe, but suddenly a wind sprang up and capsized the vessel. The east point people did not pay

Fig. 41. Wooden masks. (U. S. National Museum).

any attention to it, probably believing that they had reached the other shore in safety, but when the people from the west point went out next day they found them lying drowned on the beach beside their canoe, with the sticks still stretching their mouths and eyes. In the autumn after the accident all the inhabitants of Mummy Island, Aqlaqtulik on Hinchinbrook Island and Palugvik joined in a memorial feast at the latter place, and after that people never crossed the bay in a canoe but always walked over at low tide. Every year on the day the old women drowned they used to have a feast and mention them, but after Palugvik was deserted nobody spoke of them anymore. It should be added that the statement about celebrating the death on a fixed day must necessarily be wrong, as the Chugach had no means of determining an exact date.

The feast mentioned in this tradition is evidently one of those Feasts of the Dead that constituted one of the greatest ceremonies of the Chugach. This feast was so expensive that only rich villages such as Nuchek, Palugvik, Montague and Chenega were able to act as hosts. It was given alternately at these places every year in August. It seems, however, that individual feasts on a smaller scale were also celebrated forty days after the death of a prominent person. Some time before one of the great feasts was to be held, messengers were sent in two-men baidarkas all over the Sound to invite the people. When one of the baidarkas returned to the village the paddlers would land and announce: "Nobody is coming to the feast!" They pretended to act sad and were given ridiculous food to eat such as bare bones, fish skins full of bones, or clam shells filled with mud. When they cracked the shells and the mud squirted all over them, everybody laughed.

Meanwhile the guests were just behind the nearest point, and in the evening the villagers could hear them pounding their drums and shouting. Then everyone was happy. The visitors landed and were taken to the places prepared for them in the smoke house. Usually only the men came, but sometimes they were accompanied by their wives and children. If this was not the case they received presents for those who were left at home. Every night there was singing and dancing, each person having his own song, while the spectators probably joined the chorus. This lasted for five days if it was one of the smaller feasts, or one or two weeks if the great annual celebration took place. The inhabitants of each village danced separately, one village every evening. The people of the village that acted as hosts started the performance. The first to come upon the scene were the young men who had never before made their appearance on such an occasion. After the novices the old men danced, then the old women, and finally the unmarried men and girls. On the following evening the visitors danced in the order of their arrival. The dances had a comical character to make the spectators and more especially the immediate relatives of the deceased forget their grief and join the general merriment, but there were no regular contests between the villages in this respect. The dancers were painted around the eyes and on the chin with red ochre, and the performances were accompanied by the beating of very large drums, of which each village or party had its own, but only one was used at a time.

Not until all the dancing had come to an end was the actual feast celebrated. The essential feature of the latter was the distribution of gifts: furs, food, etc. Rich people would present them to the poor, saying as they did so: "I give this to you, because So-and-so (naming the deceased person) cannot use it. When you use it, remember him!" Besides, the dead were commemorated in a more direct way. The relatives—or, according to another version, the women of each smoke house—would put gifts into the fire, and when doing so they invoked the person concerned, adding: "I give this to you." The burnt

objects were supposed to go to the deceased. Poor people put in a little of what had been given to them. Only dead persons whose names had not been used again received food in this way.

There is some uncertainty as to whether masks were worn at these memorial feasts. The statements are contradictory, for whereas it was once flatly denied, on another occasion Makari told us that the dancers put on comical masks to make the spectators laugh. He also said that they represented spirits or animals which were believed to assist the maker, but this statement, in any case, refers rather to the shaman's masks. The masked dancers were naked except for an apron of skin and beads. After the dance the masks were hidden away in a cave, but otherwise not kept secret.

Makari gave us the following account of a remarkable incident in connection with one of these feasts, which was celebrated at Nuchek when he was young. There were visitors from Hawkins and Mummy Islands, and a young girl, the daughter of the afore-mentioned Nupatlkertlugoq, "king" of Khikhliaq (cf. p. 93), was to dance her first dance in the smoke house of Makari's grandmother. It was late in the afternoon, and the spectators were sitting on the top of the sleeping rooms. Suddenly someone called out: "Look out! Somebody above the smoke hole is going to throw something down on the girl." They could not discern the person—it was a spirit—but they could see that somebody outside was holding a board ready to fall. The spirit was the girl's lover. He had promised that if the girl would marry him, he would make her rich and give good luck to her brother, who was really good for nothing and could not even kill a mouse. In fact, one day when he was out fishing for cod he got a sea lion which the spirit gave him. Now the spirit was jealous because the girl was dancing in front of all the people. Presently the smoke house began to shake. The old people made the girl stop dancing and go outside, and then the noise quieted down. The whole dance was discontinued. The girl did not return, however, and when they looked for her next day, somebody who went for water found her lying dead. They did not dare to go near her, because the spirit was still guarding her, but in the afternoon when the spirit had left, they fetched the body. They wrapped it in sealskin and buried it at once.

A special form of the Feast of the Dead was held after a victory if none of the victoriuos party had been killed. Thus, when the warriors returned from Taukhtyuik (cf. p. 141f) they shouted before landing to tell the good news. Before they put their feet on shore the people built a big fire, and one by one the warriors ran five times around it, clockwise, in order to remove any possible danger and make them victorious again. Even in case of defeat this ceremony was upheld. The actual feast was celebrated the same evening. First they danced in the open, afterwards they moved into the chief's smoke house. Clad in armour and brandishing their weapons, which, however, were covered with sealskin so as not to hurt each other, they pretended to fight and kill the enemy. All sang together. The spectators, men and women alike, sat on the roofs of the sleeping rooms. After the performance was over, food was prepared and they started to eat, but first the women put some furs and food in the fire for their dead relatives, mentioning them by name. During the meal the old and poor people were served first, as they were supposed to eat for the dead, the women telling them whom they were to represent; they might also receive clothes for the same purpose. The receivers were not addressed by the names of the deceased, however, and it is not clear how the dead did benefit by the gifts, as they were not supposed to be present. This feast lasted only one evening.

In December there was a feast which appears as a somewhat pale reflection of the elaborate Bladder Festival at Bering Strait combined with distribution of gifts. The account was given by Stepan who witnessed the ceremony on Montague Island when he was about seven or eight years old. The urine bladders of all the game killed during the previous year, festively decorated with red paint, were hung up on a string inside the house, and the villagers, all painted in their faces according to the pattern previously described (p. 71) and wearing head bands of fur with coloured feathers, gathered to eat. The face patterns and the colours of the feathers differed for the different villages. Afterwards they all assembled in the big smoke house, to which all kinds of clothing, blankets, etc., were brought, and the chief said: "Now we are going to play. This man is going to stand up, he has got more game than we did." The person thus alluded to then started to dance, carrying eagle-tail feathers in his hands, while the rest of the people accompanied him with drums. The songs all referred to the hunt, while the dancer pointed at the bladder in question and described how he killed the animal. After the dance was finished he gave away presents to the others, and then another hunter came forward. All sorts of games were played in connection with the feast, for instance throwing inflated animal skins, and during the dance they blew eagle down in the air so it fell down like snow flakes. After the feast was over the bladders were kept in a box and carried on the hunting expeditions for luck. Next year they were hung up in the house apart from the new ones so that their numbers could be compared, but Stepan knew nothing of putting them back into the sea.

It should be noticed that two names of the Feast of the Dead and the Bladder Feast are practically identical, kaʃi·uʀlutiŋ and kaʃi·rulutiŋ respectively. There may be several reasons for this, but it is difficult to give preference to any one explanation. It is not very probable that the descriptions refer to a single feast, since the patterns differ so widely from one another. On the other hand the word may apply particularly to the distribution of gifts which constitute such an essential feature of both, just as the Nootka word potlatch is now employed by English speaking Eskimo to designate any feast of this kind. Nor can the possibility be dismissed, however, that originally it was only the name of one of the two ceremonies mentioned, the other name being now forgotten. It should always be borne in mind that in our days Chugach culture has all but disappeared and that consequently all our information is fragmentary and sometimes confused beyond any possibility of unravelling the original threads.

INTELLECTUAL CULTURE

Time Division.

Time was reckoned by years or rather by "winters", a statement which, however, needs the qualification that originally nobody kept a real account of the time during longer periods. It may be taken for granted that for instance nobody knew his own age before the colonization began. The names of the seasons and the months are given in Appendix I, but it seems probable that the months were originally "moons"[1] and thus could not correspond exactly to the months of our Gregorian year. Apparently there was no fixed time for the beginning of the new year, a natural consequence of the small interest which the Chugach took in chronology as a whole; nor did they know any method of determining the solstices.

The days of the month were estimated by the stars, but this required special knowledge which did not belong to everybody. At present calendars are made of wooden boards with holes in which is set a wooden peg to be advanced each day—or two pegs, one for the holidays, as was the case of Makari's calendar. This method of time keeping was, of course, introduced by the Russians.

The time of the day was estimated by the stage of the tides. Makari did not realize the correspondance between the tides and the phases of the moon, and it is hardly probable that it was known at all to the Chugach.

Weather Lore.

There were several means of foretelling the weather and, if needs be, of improving the weather conditions. Some of the former methods may be more or less based upon experience, but it must be admitted that for the greater part they are simply valueless omens. On this subject the following information was obtained:

When the red-throated loon quacks, people call to it to give good weather, and if it answers, their wish will be fulfilled.

When the raven calls "muq" (fresh water), it is going to rain, but if it cries "qajaq, qajaq", it means that a boat is coming, and the direction it flies announces from where the visitors will come.

It brings rain to pick sea-gull eggs; that is because then the gulls are laying more eggs. It will also rain if water is poured into an egg, or if gravel is thrown into the water, or if someone touches a certain species of bull-head called ujaŋtaq.

If a sea otter shakes itself when coming up to the surface it is an omen of bad weather.

If the kittiwakes settle on the sea, or if the sea gulls circle clockwise, it is also a sign

[1] Meares 1790, xxii.

of bad weather; in this case the gulls are said to "wrap up their bedding". If, on the other hand, they circle in the direction against the sun they are "getting their bedding out again", and then the weather will be fine.

Big snow flakes mean calm and little ones storm. If the smoke from the volcanoes goes straight up, it likewise means fine, calm weather; this must be a saying originally derived from the natives farther west, as there are no active volcanoes east of the western shores of Cook Inlet.

In order to obtain good weather a woman might place a flat-bottomed wooden vessel upside down at high water mark and beat it like a drum with two sticks. Then she would lie down beside it, pretend to sleep and wake up again and say, looking up to the sky: "I was dreaming that it would be fine weather to-morrow." This procedure was called qantaʀpaʀquəralutɨk kitaʟa·ŋaʀcɪʀtɨk, "pounding the vessel and wishing for good wather".

If drifting ice floes prevented the hunters from going out in their baidarkas, they could be touched with old human bones; that would cause the ice to spread.

On hunting excursions there was always a "weather prophet", who was not a shaman but an old man of great experience. He was called a ʟa·tʃuxta, *i. e.* "sky person", and used to advise the chief, who would then tell the other hunters what to do. It was also customary to place the tail down of an eagle on the prow of the baidarka; if it moved it was a sign that a storm was approaching.

Disease and Medicine.

Sicknesses were supposed to fly around in the air like evil spirits, but they could also be caused by witchcraft; thus it is still believed that a woman's soul can enter her enemies and make them sick. There was a spirit that made small children die; it was jealous because it could have no children itself. When a child was sick the inhabitants of the house could hear strange sounds, especially at night. The noise resembled the whistling of the wind, the growling of a bear, or the cries of an owl or a crane. Then the people would call the shaman to find out the reason, and he told them that it was a spirit that was after someone in the house. If the shaman could find out who the child was, he could cure it in case the sickness was not too advanced. At present insane or epileptic persons are supposed to be possessed by an evil spirit, but whether this is an old belief or introduced by the Russians is difficult to decide. Thus an epileptic girl in Chenega, who was afterwards taken to an asylum at Morningside, Oregon, was considered "possessed" and the other people abused her. A gust of wind would rush out of the stove, and she would feel it coming up from her feet (a recognized sympton of epilepsy).

Beside the shamans there were other persons, iluliorta or "one who makes whole", who were able to cure diseases. Most of them were women. The common procedure was to place the hands on the head of the sufferer and thus find out the sick spot, then putting the hands on the spot and acting as if something was removed and thrown away. Or she might suck the sickness out by her mouth and spit it into a bowl that was emptied into the sea. No sucking tube was used, and the cause of the sickness was not shown to the public. Makari's grandmother once cured his spine by pressing her hands on his stomach.

A few simple medical and surgical methods were employed, most of them of a highly problematic nature and in some cases evidently post-Russian. An especially potent remedy when one was "sick all over" (scurvy?) was made of spruce roots ground to a fine powder

and cooked three days into a sort of soup or paste. Sore eyes were cured with applications of wet tea leaves, or by bleeding at the root of the nose or at the temples, ear-ache by applications of hot leaves of a certain plant. For sore throats a decoction of the leaves of high-bush cranberries (*Viburnum pauciflorum*) was used as a gargle. Tooth-ache was cured either by extraction of the sore tooth by means of a piece of sinew thread, or by drilling right through it, and for head-ache the patient was cut through the scalp along the sutures of the skull, but it seems that there was not question of real trephining. Frost-bite and cuts were treated with hot pitch, and burns with an application of ashes of devil-club, salmon berries, and burnt dog's excrements. The water lily—including root, stalk, leaves, and flower—was burnt, reduced to powder and used for open wounds, skin afflictions, etc.; when the plant was picked for this purpose it was necessary to leave a gift in the place from where it was taken, for if that was neglected the medicine was without effect. The pulverized root of the northern yarrow was put on boils. For constipation they would drink decoctions of monkeyflower, fireweed, wild rhubarb or nettle roots, and for diarrhoea charcoal mixed with water. A woman would also drink a decoction of fireweed in order to stimulate the milk secretion. When the lungs were afflicted, a thong might be tied around the chest, but that was considered a poor cure. For blood spitting a decoction of a certain pulverized plant was drunk, and hot stones were used for applications. Makari once cured his daughter of pleurisy by puncturing the lungs with a small knife, and he also cured a boy, two or three years old, whose liver was supposed to have swelled from excessive water drinking, by cutting right down to the liver. For rheumatism they would cut to the bone and drain out the lymph, or they would take a sweat bath and whip themselves with elder twigs. Dropsy and other diseases were cured by means of bark carefully scraped from devilclub and burned to a powdery ash. The patient was stood up against a wall, his right foot drawn up against his buttock and lashed there. An incision was then made at the heel, in which the powder was placed. The patient had to stand thus till morning. This was "powerful medicine", Fred Allen asserted, "cure 'em every time". It is said that when people return to their home after a long absence, their feet are liable to swell up; then they would fasten a woman's knife to the wall and kick at it until the swelling disappeared. When a child's mouth "gets all white" (with thrush?), a cut is made at each nostril to make it bleed, and when the child swallows the blood, it is cured.

Smoke of the sea-beach sandwort is used to drive away mosquitoes.

Taboo and Magic.

Taboo and magic—really but two aspects of the same idea—were well known to the Chugach, and numerous examples have been given on the preceding pages, although it seems that the taboo conception was not developed to quite the same degree as among the Central Eskimo. Of course some taboos may have disappeared under the leveling influence of Russian and American education, but in consideration of the tenacity with which most of the old-fashioned ideas have been preserved, this is not very likely.

The common Eskimo prohibition against mixing the products of the land and the sea also existed among the Chugach. Thus, meat of terrestrial and marine animals must not be cooked together in the same pot, nor must their skins be utilized together on the

same garment. Another wide-spread Eskimo taboo, *viz.* against making noise when passing dangerous places, was also generally observed. Such a place was for instance Yurhtyulik near Chenega. It was likewise strictly prohibited to laugh at the convulsions of a dying animal. On the other hand many rules of the Central Eskimo were not observed, for instance the taboo against sewing at certain seasons and the killing of dogs, or against dogs gnawing the bones of the game. Some prohibitions applied to death and burial (p. 89), but they were hardly as severe as among some other tribes, and although the name of a deceased person was not mentioned except at the memorial feast till a newborn child had been named for him, it was expressly said that the words of which it was composed were not avoided in ordinary speech. While sweat baths, fasting and sexual abstinence were not entirely unknown as parts of magical performances, they did not take such a prominent position as among the Northwest Coast Indians. In cleaning polluted implements smoke and spruce bark were used, but not devilclub as among the Eyak.

Beside the taboos common to all and observed at all times, there were numerous others which applied only to certain persons or to particular periods. Typical of the latter are those connected with some sorts of games that were played at definite seasons only (p. 103ff) as well as those observed by menstruating women and by mothers in childbed (p. 83ff), or by persons contaminated by the sphere of death. In one of the myths it is told how the blood of menstruating women adheres to an unlucky hunter so that the game avoids him. Equal in importance to such taboos were the rules associated with economic life, especially sea-otter hunting (p. 32) and the killing of a young man's first game (p. 87f). Also persons who had committed homicide were subject to certain taboos (p. 102).

Most of the magical actions were performed with a view to the improvement of the hunt, either direct or in order to make the game re-incarnate and procure good hunting weather. Examples of both types have been given in the preceding chapters (pp. 33, 36, 38, 42, 115). Many of the customs connected with adolescence and feasts had a magical background. Some of the magical means were, however, of a more individual character, *viz.* amulets and charms. Amulets used for sea-otter hunting have been mentioned formerly, *viz.* the so-called cɑkmɪq and the humming bird (p. 32), but also other "good-looking birds" might be worn for luck. A raven's foot or a loon skin likewise possessed magical power. Mrs. Tiedemann had one of the last-mentioned kind for instance, but ordinarily women had no amulets. Carved figurines were never used as such.

Sometimes a person might dream of an amulet long before he found it, but nobody ever went out for the express purpose of dreaming about it, so the Indian idea of a vision quest was unknown. Children might get their amulets from their parents. At any rate they were not provided by the shamans. It is a common Eskimo idea that the amulets "work" through a sort of mystic bond between the owner and the animal from which it is taken, so that the amulet may be lost or sold and the owner still retain the protection offered by it. Here, however, it seems that if the amulet was lost, the luck also disappeared. How the power worked nobody was able to tell.

One means of securing good hunting luck besides the amulets were the songs, pisɔrʃunat·v·n, learned from the animals themselves. It has already been mentioned how a sea otter taught its "song" to Makari. A song of this kind was kept as a deep secret, as the hunter would loose his luck if it was learned by another person. On the other hand, one could teach it to a son or a brother. In a similar way the person who knew the secret names (words?) of the fire was able to make it burn more brightly, the one who knew those of

the swell of the sea could make it calm, and he who knew those of the stomach could eat a lot without feeling any trouble.

Love potions were much in use. If a man wanted a woman who did not return his feelings, he would go to the shaman. If the latter favoured the cause, he would gather cottongrass (*Eriophorum*) and after certain ceremonies chew them to a paste. This the lover would place under his lip, go to the woman of his choice and breathe in her face. As a rule, she would fall in love with him at once. If it failed, as it did on rare occasions, the shaman would get a jelly-fish, dry it, and reduce it to powder. This the lover would place so that the woman would sit on it, and that was always effective.

Belief in witchcraft is still extremely common. Thus the Indians are held in much fear for this reason (cf. p. 99), and when the Yakutat shamans visited Chenega to dance, the adolescent girls used to hide in the sleeping rooms, but also amongst the Chugach themselves cases of witchcraft are by no means unknown. There is a typical example of this in the life-history of Matrona Tiedemann (p. 4). A way of breaking the spells of the Indians commonly adopted by the Eskimo girls was by pointing a sharp bone at them; this would take away their strength though they would not know it happened. Once a girl from Taukhtyuik prevented a powerful shaman from learning that a relief party was under way in this manner. On the other hand there are no examples of using pointed bones for bewitching people.

The Universe and its "Owners".

In a paper on the religion of the Kodiak Eskimo Alphonse Pinart once gave a description of their conceptions regarding the universe, according to which there were five upper and five nether worlds beside the ordinary world, as well as a complete hierarchy of spirits of different rank[1]. Pinart himself admits that this part of their religion bears an Asiatic stamp. It is true at any rate that it is entirely un-Eskimo, and not only did we find absolutely no traces of such ideas among the Çhugach, but it is also extremely improbable that they ever existed there, for in spite of the superficial acceptance of the Orthodox Christian faith and the complete disappearance of ceremonialism, the ancient creed is still very much alive. The Chugach views of the universe and its spirits are, in fact, much more consistent with those of their kinsmen in other regions.

We were not able to obtain any creation myths, and it is well known that tales of the origin of the world are as a rule of little consequence among the Eskimo. Whether there was an under-world was not known. On the other hand the sky was supposed to be a country with woods, mountains, and streams just like the earth. After death the souls of the deceased went there, although now it is generally believed that bad people go to the Devil; but nothing could be said of the route to the Sky Land. In the tale about a certain shaman, who must have lived in the latter part of the 19th century, it is reported that he used to shake the "pole" of the earth (p. 129). Whether this is based upon an aboriginal idea, or whether it is due to a misunderstanding of the European conception of the North Pole, is difficult to decide. At least the pole is not mentioned in any of the myths collected by us.

Both the sun and the moon are mighty spirits. The sun, macaq, is sometimes identified with the Spirit of the Air (cf. p. 120f) and is married to a dog with which he has five sons

[1] Pinart 1873, 676 f.

and a daughter named camacuki. One of the myths tells how the sun's children fought with the alder bushes (p. 172ff). The moon spirit has only one eye and is called kil·ᴀq. There is a story of why he left the earth and went to the moon (p. 175), but apparently he was far from playing such a prominent part in the religion of the Chugach as in that of the Bering Sea and Greenland Eskimo where he is supposed to punish the breaking of taboos. The female spirit robbing people of their guts, who is closely connected with the moon in Greenland mythology, is not known at all. Whereas kil·ᴀq was considered the spirit of the moon, the celestial body itself (tanrɪk) was said to be a glacier, but it is not quite certain that this idea is not a misunderstood reminiscence of European teaching. It is a remarkable fact that nothing seems to indicate the wide-spread Eskimo idea of sun and moon being sister and brother; in fact, in the above-mentioned myth of the sun's children the sun appears as a male.

Shooting stars were considered star excrements and the northern lights the souls of fallen warriors. The Chugach also had the common Eskimo belief that the northern lights would come closer if you whistled.

The common Eskimo view is that everything in the world, including what we call inanimate objects, is alive and therefore has its "owner", whereas only human beings and animals are in possession of "souls". An animal has both an "owner", who appears in human shape, and a soul, whereas a human has only a soul. This idea was also found among the Chugach, who call the "owner" ʃua, literally "its man" corresponding to the *inua* of the Greenland and Central Eskimo, and the soul ʃuqʊnra. It is true that there was some confusion regarding these two conceptions in the mind of Stepan, who would identify ʃua and ʃuqunra and accordingly said that an animal and a tree both had a ʃua, but a rock for instance had none. In some tales Makari also spoke of animal "souls" when according to Eskimo conceptions one should expect him to speak of "owners", but as soon as we discussed the matter from a more abstract point of view he did not hesitate to distinguish sharply between them, and there can hardly be any doubt that his view is the correct one, both because we have two entirely different words, and because it agrees with Eskimo ideas as a whole. All lakes, rocks, trees, and even the grass had a ʃua of its own, Makari said, and so had also the animals. The bear woman in one of the stories told by him, he added, was really the bear's ʃua, which indicates that when the animals in the tales look and act like human beings, it is really their ʃue who appear thus, for—as may also be implied from the name—a ʃua looks like a man, or, as Stepan expressed it, it is "just like us" only looking more bright. On the other hand there are some indications in the myths that sometimes not every individual object has a ʃua of its own, whereas it belongs to the category or species as a whole. Nevertheless it was asserted that an animal's ʃua died when the animal itself was killed, whereas its soul would continue to live and return as a new animal provided the remains were treated in the right manner, as mentioned in the chapters on hunting (cf. also under taboo p. 118). Of course the views of a primitive people can never be expected to be logically consistent.

If Makari can be trusted on this point it was not the ʃue who became the spirit helpers of the shamans but the spirits proper or kaʟaqät. If this is correct the Chugach ideas differed from those of other Eskimo tribes.

Of all the ʃue, three were more important than any others, *viz.* ᵗʟam-ʃua, imam-ʃua, and nunam-ʃua. The former corresponds closely to the *silap-inua* or *hilap-inua* of the Greenland and Central Eskimo respectively and as such is very difficult to understand,

ᵗLA or *sila (hila)* being not only the universe, but also the weather, the air, and even the great mystic power that permeates the world, which is thus personified in ᵗLam-ʃua. This spirit owner of the air is moreover, as in Greenland and among the Central tribes, identified with pikna, "the one above", and sometimes even with the sun, as the sun was believed to make good and bad weather. If a storm was approaching the Chugach would therefore look up to the sun and say: "He will fix it again!" Likewise, if anyone was ill in the house, they looked up to the smoke hole and said: "Will you please tell pikna that So-and-so is sick!"

While the ideas of ᵗLam-ʃua are very vague, those of the two other spirits are not only much more definite but seemingly also played a far greater part in ordinary life. Imam-ʃua is the spirit owner of the sea, a mighty woman residing on the bottom of the ocean and ruling over all the maritime animals. When they went out hunting in their baidarkas the Chugach used to say: "We wish that imam-ʃua would send us some game. Let us see something!" They would likewise invoke her if a gale sprang up when they were out on the sea. The wide-spread myth of the origin of the Sea Woman (the Sedna myth) was not known, however, nor were there any traditions of shamans travelling to her abode to appeace her anger in case of famine.

An expressive proof of the tenacity with which the old beliefs are still preserved is the strength with which Stepan claimed to have met imam-ʃua. It happened the year before our expedition when was hunting off Montague Island. First he believed her to be a sea otter, but then he discovered that it was a woman. She was looking at him with only her head and shoulders above the water, and when he spoke to her, asking her to come closer, she approached to a distance of about 30 or 35 m. For nearly an hour they were staring at each other. He said nothing more but just wondered where she came from. The weather was fine and calm. Finally she looked around in all directions and dived down, and he did not see her any more. She was of the size of an ordinary woman and had hair reaching to the shoulders and parted in the middle. A person who has seen imam-ʃua will have good hunting luck in the future.

Just as imam-ʃua was the mistress of the sea mammals so nunam-ʃua ruled over all the animals of the land. Nunam-ʃua is a woman who lives in the mountain forests. She looks like a woman surrounded by a bright light and is dressed in a coat reaching to her knees with all kinds of small animals hanging from it. She also wears fur boots and bracelets made of small land animals. She can give the hunters all the animals she wants to. Stepan was firmly convinced that he had met her thrice and gave an extremely interesting account of the events:

One autumn he went up to Fish Bay Mountain looking for bears. When he was there he felt very sleepy, but was afraid to lie down because a wolf might come around. He had a belt full of cartridges and some others in his pocket. So he climbed a large rock and fell asleep. When he woke up he had pretty nearly fallen from the top of the rock. Then he went down and came to a clearing in the woods where he saw a ground squirrel. He hunted it, ate a lunch of dried fish and made ready to go home. After that, however, he slept again for five minutes or more. When he woke up he felt somebody at his feet and discovered that it was a woman. He did not know what to do and thought it was a spirit (kaLaqaq) because he had never seen a woman like her before. She knew his thoughts, however, and told him that she was no spirit. So he took his gun and loaded it, looking around to see if there were other people. But she asked him: "What are you looking for?

I am alone, nobody is with me." She told him that she saw him every time he was out hunting and accompanied him all the time. In fact, he was always hunting and got what he was after. She took him by the wrist and said that there was nothing about him that the game was afraid for, and asked him if he wanted to get more game. He answered yes. So the woman told him to take any kind of little animal from her clothes. He could hardly look at her, she was so bright. She wore like a diamond on her breast. Now he thought he might be a shaman if he touched the animals, but she told him that would not happen. He was wondering how this woman could read his mind. She was holding him by his wrist while she spoke to him, saying: "That is how I read your mind, you talk to me in your wrist." Then she turned his hand around, palm down, and wet her finger and drew a circle on the back of his hand, saying: "There is where the animals you are going to get are staying." The circle was full of animals. She told him that he would always make money and again asked him to take some of the animals from her clothes, but he declined. Then she took something resembling two blue eggs from her breast and gave them to him. Just as he was keeping them in his hand they were gone—disappeared into himself. "The two things I gave you are in your body already," she continued, "you always rise early in the morning when you are starting to hunt." She added that it was difficult for any people to see her and that she was nunam-ʃua, but where she came from she would not tell him.

She continued to advise him. Before he entered a house he ought to wash his hands and face, and he must not stay where there were menstruating women. He answered that he could not see if a woman was menstruating, but she told him that by means of the two things she had given him he could tell it fifty yards away. So now he is able to discover it immediately. He sees it by her face that looks as if it were surrounded by a red fog. When he is eating and a menstruating woman enters, he knows it right away and leaves the house, for otherwise he will feel sick and not trust his stomach. Nunam-ʃua told him never to put his gun on the ground but always hang it up, so that no menstruating woman might step over it, and never to let a woman use his hunting knife. When he got married he might stay in the house with his wife, but he must keep away from her and not sleep alongside her during her menstruations. "Please do not speak of me when women or many people are present," she said, "you are a lucky man, you are lucky that you see me." Furthermore she told him that he was all right, and even when he became old he would get animals nevertheless and would not feel weak, but if he stayed near her for a long time his eyes would trouble him, and indeed his eyes have been weak since then.

Finally she said: "I am going to let you see me sometime again if you take care of yourself." Then she bade him goodbye and left him, disappearing behind a rock not very far away. He went to the rock and looked for her, because he wanted to make sure what became of her, but he was not able to see her.

After ten years, when Stepan was married, but before he had any children, he met nunam-ʃua again. She came to him when he was asleep in Jack Bay near Valdez and looked exactly like before. She knew he was married but had no children yet. She started talking to him, telling him the same things as formerly, asking him to take some of the small animals off her clothes, and informing him that he was going to have children. Sometime, she said, it would be hard for him to get food for the children. Then she took two small animals from her back and gave them to him, and they changed into all kinds of different animals when she put them down. She told him to put them on the grass and rhubarb

and warned him not to bring them home but to leave them somewhere outside. Besides she told him that every time he wanted to kill any particular kind of game he should take them in his right hand and say what he wanted to get and then throw them on the bow of his baidarka. He did as she told him, and after that he was able to get anything he wanted. He took the animals from the cross-piece of the baidarka and threw them on the bow. He always wondered how they came back to the cross-piece, but he could not let anybody see when he threw them. However, he lost them when his house burned on Glacier Island, but also after this incident he continued to be lucky, and his dreams always came true.

The third time Stepan met nunam-ʃua in Long Bay. He had a hard time then and did not sleep. It was blowing a storm, and he and his partner were packing three mountain goats over the hills. When he carried the third one he saw her. She told him the same things as before, saying that she would give him and his children good hunting luck as long as they lived. Then she smiled and asked him about the two small animals she had given him, saying that they were really many animals. Now Stepan was not afraid of her and answered that they were burnt up once he was out hunting. "No," she said, "you did not lose them. I would not let you have them anymore, but you will always keep the same luck, you will not change." And then she took the animals from her back and showed them to him.

Now every night Stepan goes to bed he thinks about what kind of game he will get. Nunam-ʃua also told him not to let a menstruating woman look into his baidarka, for then he would be out of luck for two or three days. Her last words were: "Some time when you become an old man I will see you again." Stepan expected to meet her two times more. He asserted that he had never told anybody of his experience before, but nunam-ʃua had said to him that he might tell the story to somebody he liked, but not when there were any women around. In fact, he would say nothing as long as we were in his own house but came himself to the school room where we could be alone without being disturbed by unwished-for listeners.

Souls, Spirits and Fabulous Beings.

Both animals and human beings have souls, sing. ʃuqʊnra. The soul of an animal looks like the species in question. So the bear's soul looks like a small bear and has its seat in the head; that of a fish is in the guts. As formerly mentioned the souls of the animals may be reborn. The soul of a man is the same as his breath, anerineq. During the sleep the soul may travel far away and talk with other people's souls. This is what happens when you dream, and therefore you may sometimes feel very tired when you wake up after a dream. After death the soul may turn into a ghost. A man called Cook-House Mike and his family had to move out of Simpson Bay, because the ghost of a man who had drowned near Orca Cannery (Cordova Bay) used to haunt the place. If the fire cracks it means that the souls of the dead are hungry, and a piece of meat is then thrown into the fire.

Matrona Tiedemann's mother had told her of the unborn children and what it was like to be born. Before birth, souls of ordinary children live in nests on the ground somewhere on the mainland. They come out of eggs, some of which are good and some bad. It is different, however, with the souls of twins and of children born with a veil who are

considered especially lucky, although the latter are said to be the "slaves" of the former. They often find cɪkmɪq, the "diamond" substance highly valued for amulets (cf. p. 32), and children born with a veil can see the souls of the animals and therefore have good luck in hunting. Ma's mother was not only a twin but also the daughter of a twin (cf. p. 4), which may account for her extraordinary knowledge. The souls of twins live on an island where the rocks consist of cɪkmɪq. There they sit on top of water-lily leaves in a lake. When Ma's mother was to be born, she took her canoe (*sic!*) far up in the woods and covered it with branches. Babies who do this will live long, whereas those who do not haul their canoes up will die soon. A year before Ma's mother died, she dreamed that she took her canoe down to the water, and so she knew that she was going to die soon. The soul to be born enters the mother's womb and lives there just as in a house. Until the seventh month it is so dark that it can hardly see the food; but what it does not like it spits out, and then the mother vomits. In the eighth month everything becomes bright, and the baby turns upside down with the head towards the "door" of the "house". Ma's mother did not want to come out because the children in the room made so much noise, and every time they started to cry she went back. Nor did she like her grandmother, and when the old woman touched her mother she also drew back; but as soon as the grandmother left the house, everything seemed bright "and she popped out".

There is a class of spirits who are neither the "owners" of natural phenomena nor the souls of animals or men, although a person who runs away from his village and lives in solitude may eventually turn into a spirit of this kind, just as people of an evil disposition after their death may be transformed into them (cf. the tale p. 144f). They are called kaʟaqät, sing. kaʟaqaq or kaʟa·q, and live in the woods and the caves of the country. Most or all of them are evil-minded and are only visible to the shamans, who can recognize them by their pointed heads. Stepan also provided them with horns, but the latter were presumably a Biblical attribute. It is these spirits who become the helpers of the shaman, for which reason he is called a kaʟa·lɪk, *i. e.* a person who has spirits. One of the most powerful and feared spirits is kapaʀʃu·ʃɪ^{k}. Ma Tiedemann identified him both with the devil of the Bible and with St. Michael for the somewhat strange reason that "he could write"—the rock paintings in the Sound being interpreted by her as examples of his handwriting. Forked hemlock and spruce trees were said to have been split by kapaʀʃu·ʃɪ^{k} for his wife to sit in, and many Chugach are still afraid to camp near such trees. His brother was a^{d}liʊq, who was, perhaps, even more powerful. He was the spirit helper of Apuluq, the famous Montague shaman (p. 128f).

Around Chenega the spirits were especially plentiful, perhaps because they had a village there; they could be heard stamping under the ground. The spirits were not known to steal infants in order to substitute their own offspring for them, but sometimes they had a child with human beings. In that case, however, the woman must always have had intercourse with a man before. John Chimovitski's wife, who lived at Tatitlik, fell in love with a spirit and was possessed by it. She was a very quiet woman who used to walk alone on the beach and would not even eat with her husband. She could tell when the spirit came to her. Then the fire would rush out of the stove, and the whole house would shake. People who tried to hold her hand during one of these fits would faint—though Ma, who related the story, admitted that she never felt anything. The woman was rather young and had eight children already before she got one by the spirit. Its hands were like paws and the afterbirth was covered with fur, so she killed it. She said

that "there was fire burning in the cradle". After the birth she swelled up so that seven men were not able to lift her—it was the spirit holding her. She was covered with crosses for protection, and a priest arrived carrying a cross, prayed, and blessed her with holy water, thus driving away the spirit. Afterwards everything in the house was burned, because the spirit had touched it.

The world was inhabited by several kinds of fabulous beings, some of them bearing a rather close resemblance to those known from Greenland. Inland, in the country of the Chitina Indians, there were a people of giants, sing. ʃuxpaq, who could turn into whatever they liked by spitting or putting their snot on it. Once a giant saw a three-masted schooner riding at anchor; he waded out in the water, that reached him only to his knees, and took it home as a toy, but when the crew asked him to let them go, he gave up his intention (this incident is included into the tale of The Soldiers who Ran Away from Rooshia, p. 142f). Other giants were provided with claws and were therefore called kaʟaqät ʃtul·ɪ·t, *i. e.* nail spirits. There were people with only one arm and one leg, people who did not eat but were nourished only by the smell of meat, and people who carried the fog on their chest and blew it out when they were met so that they disappeared in the mist.

The most important of the fabulous beings seemed to be the dwarfs. Some of them, inuaruʟ·ʊ·t, were only the size of a thumb; they lived in sequestered places in the hills and were able to kill animals by pointing at them. Other dwarfs were called inuaruʟ·ʊ·t-kikɪ·t. They were about one foot high, but very strong. They had baidarkas and sometimes assisted people who were in distress on the sea, but they were rarely seen. A person who met one of these beings was, however, lucky for the rest of his lifetime. Once a man going from Knowles Head to Gravina found a dwarf and wanted to take him back to his village, but he abstained from it when the little fellow gave him a present of hunting implements. He was told not to bring them to the village nor to show them to anyone but to keep them hidden. After that he always had good luck in hunting. A third kind of dwarfs were inuaruʟ·ʊ·t aʟ·ɪ·t or dwarfs' partners. Makari's sister, who lived on Stony Island, used to miss food in her house. Then one day she discovered a tiny man, about one foot high, under the table with a sack full of food which he was taking away. They wanted to capture him and take him to town, but he was so powerful that they could not overcome him. So they became afraid and gave him two gunny-sacks of food. The dwarf walked to the door and flew off, the whole house shaking as he left (for other dwarf stories see p. 148 *et seq.*).

Once Makari was hunting on Montague Island when he saw a flock of land otters with human faces, but he could not—or was afraid to—kill any of them. Long before that it happened that a man named Urhtat from Port Etches was travelling with his son Angashinga in Sheep Bay. It was dark when they arrived at the smoke house on the beach of Tingmialik in Gravina Bay. Urhtat and his son were eating, as somebody opened the door, a crane with a long neck walked in and sat down by the fire. Urhtat was holding his plate and could neither move nor speak. The crane, who was really a ghost, was looking him over. Urhtat accidentally kicked the fire toward the crane when he stretched his leg, and then he said: "Son, you better hurry. We'll take the baidarka back to Port Etches. A ghost came in on us." They started off, but as they got near a rock and Urhtat looked down, he saw just like fire under the surface of the water: a big crane with eyes, and wings flapping. Angashinga had a crucifix which he lashed to the end of his father's paddle, and as soon as he put the paddle in the water the fire disappeared. From the top of a

mountain the crane shouted after them: "Lä-ä-ä-ä! You did not get me, Urhtat!" They arrived safely at Nuchek and nothing bothered them anymore. Urhtat's great-grandson was the brother of Ma Tiedemann's uncle's wife. Both Ma and Paul Tiedemann knew Angashinga.

Several of the fabulous beings known from Greenland were unknown to the Chugach: the skerry people (*ingnerssuit*), the people whose eyes wink from side to side, the pot-trolls, and the subterranean monster called *kilivfak*, generally supposed to be identical with the mammoth. Nor had the Chugach any knowledge of a people, half human and half dogs, but Makari's daughter had heard of a woman who recently had got a child by a dog, and in the tales there are several cases of people who married animals.

Shamanism.

The spirits were not worshipped except in a very rudimentary way. There were no sacrifices, no prayers (unless the brief applications in case of sickness and before a hunt may be termed so), and no cultic activities apart from the dances, which apparently had a magical rather than a religious background. Knowledge of future events might be obtained through omens and dreams, whereas "head-lifting" as among other Eskimo was unknown; but otherwise the shamans were the intermediaries between the ordinary people and the spiritual world, and to that end they had one or more spirit helpers at their disposal. However, once the connection with the spirits was established, it was founded upon a co-operation on so to speak equal terms and not upon a state of dependence of the shaman and superiority of his assistant spirits. A shaman was simply called kaʟa·lʁk, *i. e.* one who has spirit(s). Both sexes might be shamans, and a female shaman did not lose her power during her menstruation periods. It was common for a shaman's son or sister's son to become one himself. In some cases a man might acquire shamanistic power without knowing it himself (cf. p. 130) or by some unusual event (cf. p. 129f), but as a rule it was obtained by walking for many days in lonely places where the spirits would then appear. As soon as a spirit spoke to the novice he would faint, and immediately the spirit carried him up into the mountains or to the depths of the sea in order to teach him the secrets of his art, in the first instance his shaman's song. Finally the novice would wake up on the top of a mountain or lying in the water, but when the spirit was convinced of his abilities, it would take him home. It was not possible to get certain information about the manner in which other spirits were acquired subsequently, whether they also appeared voluntarily or were given by his first assistant.

It happened that a spirit fell in love with a human person who would then become a shaman (or be possessed by it, as is shown in the story of John Chimovitski's wife, p. 124f), but this was not an unavoidable qualification as it is said to be among some Siberian tribes[1]. In fact, a male shaman might very well have a male spirit helper, and a female shaman a helper of her own sex. The spirits often appeared in the guise of owls or cranes. If an owl hooted close to a village it was a spirit telling news to the shaman.

When a shaman was sitting inside the house he might suddenly feel that the spirit was approaching. Then all of a sudden he would start to sing and beat the drum, but the ordinary seances always took place at night. During the performances the shaman, who in ordinary life had no special dress, wore only an apron of skin trimmed with puffin

[1] There is, however, a special word for having sexual intercourse with a spirit, *viz.* kaʟaᵉrkuq.

beaks. The audience could hear the conversation between the shaman and the spirits, but they were not able to understand what they said, as it was spoken in a peculiar spirit language. In some cases, when he "expected something" or "was after someone", the shaman started to dance, while the spectators sat around singing. The shaman's dance was called kaLa·rlutiŋ.

Beside the drum and rattles, which were also used in ordinary dances and have been described formerly, the special paraphernalia of the shaman were masks and certain dolls. Unfortunately the statements concerning the latter were more or less confused. Masks were worn when the shamans were curing the sick or trying to find out where stranded people were. Probably they represented the spirit helpers; at any rate it was said that the shaman was able to "put a spirit" into his mask, and if an ordinary person put it on he would act "funny", whereas the usual festival masks were quite harmless. The dolls were also representations of the spirits. Each shaman had several of them, some of them strong and others weak. They were about 30 cm high and had human bodies with different looking faces. When a shaman put a spirit into the doll he could send it away to perform the tasks with which it had been charged. Some could save people from danger, while others were able to kill them. Some had the faculty of speaking, but ordinary humans were incapable of understanding them. One woman had a doll that could walk by itself. Matrona Tiedemann was of opinion that the shamans kept the dolls hidden away in caves and that they would lose their strength if touched by a girl, but as she did not seem to distinguish between masks and dolls, she may refer to the former.

A shaman could cure the sick, foretell future events, and give advice as to the measures to be taken in case of impending dangers. He could tell if an absent person was sick or dead and what had happened, although not where it took place. If he liked he could temporarily transfer his power to somebody else. Thus there was a young man at Chenega who was not a shaman, but when an old man gave him his power he acted like one as long as it remained with him. It seems, however, that it did not always work, for sometimes when the hunters had brought back a seal, he would carry it away secretly and tell them that the seal had moved, and once he ordered in vain a crab to bite him. But a shaman could perform much more wonderful deeds than those mentioned. He could turn into any kind of animal and fly through the air like a big bird, and he could send his soul away to look for missing people. Matrona and another woman saw one evening a shaman flying from Knowles Head to Simpson Bay. He looked like a bird, throwing off sparks as it flew as from exhaustion. The woman fainted with fear. It should be added here that whereas a shaman thus may appear as fire himself, he has no "inner light" as it is told of other Eskimo conjurers. One shaman would take two ends of a cut rope in his mouth while two other men each took hold of the other ends, and when they pulled it out the rope was whole again. Another shaman could dive into the ground in the middle of the house, grasp the earth's pole or post and shake it. He might also stab himself without inflicting any wound. At Chenega not very long ago there was a woman whose whole side was rotting. The shaman asked two men to shoot him in the side to take away the pain from the woman, put him into the bath house when he was dead, and leave him alone. So they did. Then they heard someone singing in there and saw him resting on his knees. He spat in his hands and pressed them onto his wound. The whole night he remained in the bath house, and next day he was well. The woman recovered too, but afterwards the shaman's side became paralyzed (or, according to another version, he got a crooked

leg which he could not stretch out). Thus a shaman can cure by taking the patient's pain to himself. In the following section some other instances of shamanistic performances will be given. There is no doubt that to some degree they depended on—more or less conscious—tricks of sleight-of-hand and, perhaps, ventriloquism. The main thing was, however, the shaman's ability to fall into a trance; his "swoons", his sudden fits, his unintelligible speech—all these details point to the same direction, as does also the tendency of the calling to appear within certain families, which is of course suggestive of a hereditary disposition.

At any rate in later days shamans were not equally common all over Prince William Sound. Thus there were none at Tatitlik, nor at Gravina and Sheep Bay. On the other hand Montague Island was quite a conjurors' centre where "half the people were shamans". The first one was Apuluq (cf. *infra*), who taught the others after they had promised not to behave "mean". Needless to say the Indian shamans, both Eyak, Tlingit, and Ahtena, were held in great fear. The most powerful in modern times was "Chitina Joe", of whom many wonderful tales were in circulation; in fact most of the information we gathered of this illustrious person was obtained from Matrona Tiedemann[1].

Stories about Shamans.

The most famous shaman on Montague Island was Apuluq, who was also chief of the village and a good weather prophet. He lived (*i. e.* was born?) before the Russians arrived. His spirit helper was a^{d}liuq. Once the spirit threw him down from the mountain on the north side of Valdez Narrows so that he landed on the beach. Two baidarkas happened to pass by at the moment, and the paddlers heard him say: "Gee, I just got a little head-ache." Since then the mountain is called Nashqulinguaruvik, *i. e.* Head-ache Mountain. His wife, who came from a place called Yalik, had no children, so he made her a wooden doll which he could even make walk around as long as he put his power in it. His wife fondled it and dressed it in sea-otter furs and beads "like a queen". She even pretended to suckle it, but finally her breast rotted. She died and was buried on Montague Island together with the doll.

Apuluq and a colleague named Tutyiq were the only two shamans who employed rattles during their incantations, while they had someone else to beat the drum for them. When he undertook his medications he used to sing and carry the patient five times around the fire on his back or, if the sick person was able to walk, he would lead him by the hand. He had a big spruce-root basket filled with water into which he dived five times with the patient on his back (*sic!*). Once he cured the great-grandmother of a woman named Lizzie. She was a heavy woman, and Apuluq could hardly lift her but had to drag her around. First he sang and wheeled around with her five times, then he blew on his hands and put them on her body, starting at her head. It took the woman some time to recover, but she finally did, so Apuluq did not need to repeat the treatment.

As mentioned above, Apuluq taught a great number of the Montague Eskimo to become shamans, among others Imanaq; Qashaq, who was also a first class carpenter; Angaguiluq; Apatyita and his brother Qushi, who was Makari's stepfather, and Mashu, Makari's great-grandmother. Another of his pupils was his nephew, Angauqanga, also nicknamed Tutlkia, who died as an old man as late as 1920. One day Angauqanga was drinking tea in the smoke house together with some other people. Suddenly he rose and

[1] Cf. Birket-Smith & de Laguna 1938, 223 ff.

said: "Aha, someone is stranded and cannot come home." A young man had been out all day and got stuck on a high rock above Chenega. A little later he entered, tired and perspiring. He said that he did not know how he got off the rock, but somebody's spirit must have helped him, and he paid Angauqanga three dollars. Angauqanga was a good man who assisted and cured many people, but nevertheless his daughter was afraid to let him live in the house with her. She kept him in a ruined smoke house with only a saucer full of seal oil for light. He was only mean in one way: when out hunting he took the souls away from the animals so that his sons might kill them, and never gave anyone else a chance. Apuluq, who had taught him, did not punish him, however.

Tutyiq from Chenega was bad, and a remarkable thing was that he was strongest when he was asleep. His spirit helper was kapaʀʃuʃiᵏ, whom he used to send to frighten and hurt people he did not like. The spirit flew away carrying his master. Nobody ever saw the spirit, but they saw Tutyiq in their dreams when he told them that he was going to make them sick. People wanted to kill him, but even Apuluq was afraid to do so. Tutyiq had his wife to beat the drum for him and used rattles himself.

Another shaman from Chenega was Shinka. He used to shake the earth. First he would sing, then fall on his back. After that he lifted himself up and peered around, shading his eyes, to see how close he was getting to the pole of the earth. Thus he used to sing and fall several times, saying: "Now I am getting close to the pole." Finally he would pretend to put his arms around it and jerk. "Oh, I've pulled it a little too hard," he said. Then there came a noise, and the earth would shake. A white man named King, who was sceptical when he witnessed the performance, did not believe that the shaking was a real earthquake. Therefore he sent someone to all the houses in the village, and everywhere the earthquake had been noticed. Makari was present at this performance, which took place when Matrona was an infant.

The only shaman at Kiniklik was Katla, who was married to a woman named Akakutak. They were helpless old people who used to travel around in a big baidar, and many people pitied them and wanted to help them. However, when the couple was alone in their boat, it would be full of spirits paddling for them. When they approached a village, the baidar would be empty. If it started to blow they would land, and the spirits then carried the boat ashore so that it would not be damaged, and lit a fire. The spirits also took the boat down to the sea unless people were around, for in that case the old shaman and his wife used to inflate three big sealskins for rollers to move the boat down. When the whole affair was discovered, nobody tried to assist them anymore, but people would often sneak up in order to see the spirits at work. They never succeeded, and at last the old man died in spite of all his spirits.

Even white men might be shamans. There was a Norwegian named Louis Carlsen who was married to Makari's sister's daughter. He was at Eshamy Lagoon when Makari arrived with a boat looking for a site to build a new cannery. The salmon were jumping, and the people were afraid that the cannery would be built there. Then Louis blew on his hands and moved them at the fish which were quiet at once. So the cannery did not locate at that place. When the boat had left, Louis blew on his hands again and waved them at the fish, and immediately they began to jump again. He was a real shaman!

The following incident shows how a man from Chenega by the name of Mayuqknaq became a shaman. He went up in the hills at Yurtyulik near Little Bay on Knight Island in order to kill ground squirrels and sat down to rest. At low tide he noticed something

floating on the surface of the water. It was a monster that used to drag the baidarkas down to the bottom of the sea. He tried to kill it but fainted instead. However, though unconscious he could see that the monster was wounded and had come up at Montague Island. When he recovered he attempted to kill it again. Whether he succeeded or failed is not recorded, but when he came back he picked up his load and said: "How tired I am!" Afterwards he was one of the greatest of all shamans at Chenega.

Sometimes the spirit helper appeared to a child. This was the case of Aruarhtaq, who was named so because his father's father came from Kodiak; aruartaq means a whale in the Kodiak dialect. He was the man who could splice a cut rope in his mouth. He was two or three years older than Makari. When he died Makari was married but still had no children.

It happened that people became shamans not because they themselves tried to get into contact with the spirit world but consequent to some extraordinary incident. This is illustrated by the story of Kalushi, who later became the father-in-law of Makari's oldest brother, Peter Chimovitski. One day when he was only ten years old, he was out fishing in a baidarka together with his father, Kangatyuq. A big halibut upset the boat. They shouted, and the people from Nuchek who heard them crying for help came out to assist them. They found the baidarka and Kangatyuq, but could not find his son. At last they became aware of him sitting on top of Little Porpoise Rock, Napalarianguashaq. This rock is so steep that there is no way of getting up there. When his father asked him how it happened, Kalushi answered: "A little mask packed me on his back up here." They tried to hold a spear so that he could climb down, and when it failed they returned to Nuchek for further assistance. Then they put two baidarkas together and poked him off with a long pole and caught him. "The little fellow took me up there on his back," was all he said. Next year he became a shaman. He was very powerful. "He cured lots of people—really did!" He also used to make storms stop. Then he said: "I am going to the sleeve where that wind is coming from. I am going to tie it up." After he had finished he announced: "I have tied it up." He used no rattles during his performance and got anyone who happened to be in the house to beat the drum for him.

A person may even be a shaman without knowing it. Kangatyuq, the father of the above-mentioned Kalushi, may serve as an example. When Makari was a very young man he was with a sea-otter hunting party to Middleton Island. They came to a smoke house where an old rotten kittiwake was lying on the floor; it was full of maggots, and the feathers were coming off. One of the men picked it up and was going to throw it away, when Kangatyuq stopped him, saying: "Don't throw it away. I want to see what makes me act queer. I want to find out what I am." He was really a shaman but did not know it. So he blew in the kittiwake's beak, and it came to life and flew away out of the smoke hole.

Later Makari went with him on another sea-otter expedition to Kodiak. Pavlov, the leader of the party, called a meeting and told them not to go into the woods where there was a little shack inhabited by a very holy man, the monk German (монах Герман). Kangatyuq was accompanied by a cousin and said to him: "I wonder what is up there." So they started off in the evening. It was in the summer. After they had passed the houses it became dark. Then they caught sight of a bright ray of light shining on a small log cabin. They walked in and saw an old man praying on his knees. The old man asked them: "How did you come here? Are you dead or alive?" Only dead persons came there, and

the old man was able to see dead people. "Are you a shaman?" he asked Kangatyuq. "No." "Yes you are, I can see that." But Kangatyuq kept denying it. Then the old man wrote a note and put it into an envelope, saying: "Come here!" The cousin could see that Kangatyuq was afraid, when he stepped forward. "I want you to take this note to the priest," the old man said, "do you know him?" "Yes, we went to church yesterday."

When they came out, Kangatyuq said to his cousin: "Now we are in for it. We were looking for trouble, and we found it." So they went to the priest's house. They stood there coughing, and the priest came out. "What do you want?" he asked. "We brought a note for you." "Come in, but don't make so much noise, my daughter is sick." After he had read the note, he continued: "I want you to cure my daughter. She is very sick and is going to die. She has not eaten for days." Now Kangatyuq was not afraid any more. The girl was about sixteen. She was lying in her bed with closed eyes. She had been sick many weeks and could not open her eyes. Once in a while her father would take the blanket off and you could hear a little sigh. Her mother was crying all the time. The priest said: "Come here and take a look at her. The note says that you can cure her, and I want to make her well." So the priest took Kangatyuq in on tip toes. Kangatyuq told the priest to return to the front room, where his cousin was sitting, and close the door. "I am going to try my best," he said.

At first Kangatyuq was silent, but then he started to talk. "I wish you would help me, whoever you are! You let this girl come back to her parents like that rotten bird on Middleton Island which I made alive, then I'll believe myself what I am." He blew on the girl's mouth. The first time she did not move, but the second time he blew through his hands, and she opened her eyes as if she was waking up. Now Kangatyuq talked and talked, but they were not able to understand what he said. After he had blown for the third time the girl motioned to him to set her up. He lifted her up from the bed, held her there and blew on her mouth. Then she motioned for water. Kangatyuq opened the door and said: "I wish you would hand me a glass of water." The girl's mother was nearly falling all over herself as she hurried to the sink for it. The girl drank and said: "Oh, I am hungry, I wish I could eat." Kangatyuq did not say who wanted the food, but the girl's mother gave him some rice. It was all they had ready. Kangatyuq gave the girl a spoonful, and she said: "I wonder where my mother is." He opened the door and called her mother in, saying: "The girl wants to see her mother." Then she said: "I wonder where my father is." So they called him in too. Then she removed the pillows from her back and sat up alone. After that Kangatyuq remarked: "We are going home now, but I will be back to-morrow to see how she is getting along."

Shortly after they had returned a small boy came and said to Kangatyuq: "The priest wants to see you." The girl was missing the man who had been feeding her and therefore she wanted to see him. "I wish you would stay here with me until I feel strong," she told him. So Kangatyuq remained there all night and fed her a spoonful at a time. Her father and mother stayed up cooking. Next day the girl got up from her bed. "I want you to help me up so I can see if I can stand," she said. So Kangatyuq helped her and took her into the front room. The third day she was walking around in the house without assistance. Before the sea-otter party left Kodiak she had recovered. The priest gave Kangatyuq twenty baidarkas full of goods besides a lot of money, but before they arrived at Nuchek Kangatyuq had given most of it away.

This was the occasion when they discovered that Kangatyuq was a real shaman. He

was the last one (?) at Nuchek. He never hurt anybody, but he always cured people. He could do so even faster than Apuluq. He always used to blow but never did anything else, not even sing. "That fellow has got good breath medicine," people said. He did not know who his spirit was. His son Kalushi did not cure people like (in the same way? or, as fast as?) his father.

The New Faith.

Christianity was introduced by the Russians, and all Chugach now belong to the Greek Orthodox Church. Any deeper understanding of the Faith can hardly be expected. Most of the old ideas still exist beside the new doctrines, and only the ceremonies have been replaced by others. There is no Russian priest in the Sound now, but at intervals a priest from Kodiak will visit Chenega, where the ordinary service is taken care of by a "second priest", *i. e.* a lay reader or catechist.

In a way the Chugach are very religious. A holy picture is probably found in all the houses of Chenega. When a man leaves the village he will look back toward the place, uncover, and bow and cross himself, and when he comes back from a hunting or fishing trip, he will walk right up from the beach and enter the church. They go to church almost every day, and all cross themselves after eating. Both Russian and American holidays are celebrated, but the former are by far the most important. The inhabitants of Chenega always return to the village for church holidays. At Russian Christmas they have a kind of masquerade. At any time of the day all the men and most of the women will put on masks made of pillow slips, stockings, etc., and dress like animals by means of a bearskin or a sheep hide with horns, or like characters of comic strips. Others may impersonate each other. Different groups take turns in masking. They go from house to house, where they are offered food and drink, the latter often in too liberal quantities. As soon as they enter a house the grammophone is turned on, and they have to dance as long as they can; when a person gets tired and stops dancing, he has to unmask. Those who know how, do native (*i. e.* Russian?) dances[1], others dance as best they can. Sometimes they have American dances in mixed couples. The celebration lasts one or two weeks. They also make a star of crêpe paper and swing it around continuously while they are singing Christmas carols. At Russian New Year they stay up till midnight and shoot, and may also have a dance. Russian Easter is celebrated with cakes with sugar and candy decorations. These they take to the church, and here they also exchange red-dyed eggs with former enemies to show that ill-feelings are over. Service is held at midnight before Easter Sunday, and when the solemn announcement "Christ is risen" (Христос воскрес) is made, they all kiss each other.

Birthdays are not celebrated so much as the nameday which is likewise the nameday of their saint. All people of the same name will come back to the village in order to go to church for special service. They wear their best clothes, do not work, and their family waits on them, and if they are children they will stay out of school that day.

[1] I witnessed a so-called "native" dance in Cordova. Whether it was of Russian origin I dare not say, but it had certainly nothing to do with Eskimo dancing.

FOLKLORE

Sayings about Animals.

Before passing over to the real myths and traditions it may be appropriate to insert here a few sayings about animals which cannot properly be included in other context.

When people build a smudge the mosquitoes say: "Look, they are calling us, let us go down!" They are not killed by the fire unless they fly so close that their squirrel-skin coats are singed. In the autumn when the mosquitoes return home they are asked: "How many of you are killed?" They always answer: "Oh, no one, only a one-eyed fellow." The following song refers to a man who was stung by a mosquito, because he had killed its mother the night before:

kuʀtɔriam	A mosquito }
kuʀtɔriam	a mosquito } (pronounced low and fast)
kuxa·ŋa	I am stung by
kuxa·ŋa	I am stung by
anaminun	because of his mother
akiʟuaŋa	I am being revenged upon
kuxa·ŋa.	I am stung by.

The kelp cod is supposed to be the cousin of the raven, who once called to it that its blue mouth reminded him of the sky.

When the cormorants come back to their sleeping places at night they always cry. They are telling each other where they went during the day. A bald-headed person is called muqnilʟk, because it is said that the cormorants have vomited on his head and made him bald. .

As mentioned formerly (p. 118) a person who learns the particular song of an animal has always good luck in hunting it. The porcupine is said to be always singing.

Bears suck their paws in winter. They sleep soundly from the fall, but on the first day of spring they turn over in their dens and sleep on the other side until the snow disappears. They stick their right paw out to feel how warm it is; then they smell their paw and when it seems warm they day: "Now I can get those sea slugs at low water."

The sea otter was originally a human being (cf. p. 33)[1]. Other characteristics of the animals are explained in the legends.

Local Traditions.

Nobody travelling in Prince William Sound can avoid being struck by the grandeur of the scenery: the lofty mountains, the steep, forest-clad slopes and the innumerable bays and sounds all unite to form a picture of rare beauty. But to the native inhabitants of the country it was even more. It was the scene of their life during untold generations, and so to speak every cove, every rock had a name and a history of its own. In the archeological report of Dr. de Laguna the sites located by our expedition are listed together

[1] The Aleut also hold the view that sea otters are transformed human beings, but their explanation is quite different. (Cf. Golder 1905, 220 f. Golder 1907, 139 f.).

with the information about their past as far as it was still obtainable. Here some other traditions or rather explanations of place names are given; but it is needless to emphasize that they are very far from being complete and thus can only serve as a few scattered examples of their kind.

Palugvik, the site on Hawkins Island where our principal excavations took place, was called thus (palu·gvɪk, *i. e.* mourning place) on account of a terrible period of starvation once when the ice was so firm that all hunting was impossible. A young girl took a human bone and tried to push the ice, and next day it had drifted away. The detail about the power of human bones to make the ice disappear is particularly interesting, because I have heard exactly the same thing in West Greenland.

Not far from Palugvik was a dwelling place (summer fishing camp) at the head of a small cove on the west shore of Hawkins Island at the Cut-off. It had acquired its name, Paungnaruat (from pauŋnaq, the Kodiak word for brown bear), because a young girl just released from her puberty seclusion was walking along the shore, when suddenly she met a brown bear with its cub. The bears immediately turned into stones which since then are called Laqlaruat (from lʌqlʌq, the Chugach name for brown bear).

A little north of this place are two other stones which formerly were frogs. They were swimming in the water when a baidar passed by, and they got so frightened that they jumped ashore and turned into stones. They are now called qɪtxu·k.

South of Laqlaruat there was formerly a monster octopus called ami·qurniliŋuq (from ami·quq, an octopus). Two brothers were hunting ground squirrels on Qagiat-Ingriat or "Seal Creek Mountain" when they saw the octopus coming out of the sea, which was quite red. They hastened down to the shore and waded into the water. The octopus wrapped its arms around them, but they chopped them off one by one and finally succeeded in killing the monster. The two hunters were the same orphan boys who avenged their sister (cf. the tale p. 146).

The Nuchek people once went in a baidar after wild celery in Port Etches. While they were busy gathering the plants on the north shore above the entrance to Constantine Harbor they heard a strange noise coming down towards them. The noise kept getting closer, and they realized that it must be a^{d}liuq, one of the most powerful spirits (cf. p. 124). So they hurried away and never came back, because they were afraid. The mountain is now called Adlium-Shturnera.

The hill above Nuchek is named Atunguaq, because a very old man once went up there with a board (to pound upon?) in order to sing of how he used to be in his youth.

A rock in Anderson or Double Bay is called Iram-Qadliruarvia or "Devil's whistle". Once people heard the devil shout there as if he was calling a seal. They went out in their baidarkas and noticed that sparks flew from the rock.

There was a village named Qiyarvik or "Crying place" which got its name because the inhabitants felt sure that they were to be killed by the Tlingit. However, the people from Taukhtyuik came to their assistance and killed their enemies for them.

Historical Traditions.

The Chugach still have a number of traditions apparently more or less based upon historical events. Most of them deal with wars between different villages or between the Chugach and their neighbours to the west and the east, the Kodiak Eskimo, the Tanaina,

and the Yakutat, and seem to be of rather recent origin. In fact, it appears from some of them that they belong to the period after the Russian colonization started. It should be noticed that there are no allusions to wars with the Eyak, but from Eyak sources we know not only that they did occur, but also that the last fight took place on Hawkins Island and ended with the complete victory of the Eyak. The defeat of the Chugach is probably the reason why they denied the fight so emphatically[1].

The following accounts are given virtually word by word as they were told by the narrators, every sentence being translated immediately as it was rendered by our informants. Sometimes, however, I have deemed it necessary to change one or two words. I admit that I have done so with some hesitation, but I believe not without good reasons. Even when the interpreter, as in the case of Matrona Tiedemann, had a complete command of English, her vocabulary was, of course, rather limited and moreover strongly contaminated by the slang of white fishermen and cannery workers. Now it is, of course, amusing to find expressions in the legends like "them fellows", "you guys" or "it was snowing like hell", but it should be remembered that they convey an entirely wrong idea of the whole character of the tale. Like ourselves, the Eskimo know what may be called a "literary language", especially in their myths and legends, and if we are to get a true impression of their narratives at all, this fact must be taken into due consideration. The method of translating sentence by sentence as the tale gradually advanced also involved a sort of staccato style, and therefore I have sometimes inserted an "and" or "but". In all cases, however, these changes are exceedingly few, and neither additions nor omissions have been made.

How the Different Villages Started in Prince William Sound.

(Stepan).

There was an old village in Two Moon Bay in Port Fidalgo. A man there had five nephews, twelve sons, and two wives. He was sick and ready to die. He had a fine spear with a throwing board which he gave to his youngest nephew. Then he died.

The nephews and the sons all went into one house. The sons were dividing the dead man's things among themselves and the nephews. They gave each some bows or arrows or spears—all the dead man's hunting implements. The nephews were talking of the throwing spear. The oldest son said that his father wanted to give it to the youngest nephew, but the oldest nephew said: "No, he gave it to me." Then they started to fight for the spear and were hitting each other with it. The oldest son seized it and threw it into the fire. Then they all quarreled and left.

They went all over [the Sound]. Some of the sons went to the Cordova side, some went to Trhetla near Taukhtyuik [at the other end of Canoe Pass?] and to all different places. Most of the nephews with their families went to Palutat in Long Bay. There they entered a big dry cave. They pulled their baidarkas up and piled their hunting tools all together. Then they sat up against the wall of the cave with their knees doubled up under their chins—everybody, men and women, the women holding their babies. They died that way and dried up. You could see them there long afterwards.

The sons and some of the nephews went to all the different places in the Sound, I don't remember all the names. That is how all the different villages started.

The Warriors from Matyangknat.

(Makari).

There was a village called Matyangknat in Zaikoff Bay. People lived there for a long time. Then one fall they thought about fighting. They were going to Mummy Island. They were all ready and started off from Matyangknat in two baidars full of men. There were twenty men in each boat. Evening came as they crossed near Nuchek, but they did not stop there. They intended to stop at

[1] Birket-Smith & de Laguna 1938, 147.

Qireliaq [in Double Bay on Hinchinbrook Island]. It was real calm weather, the sky was blue, not a breath of air. The boats were travelling together and never left each other. They were paddling fast. Suddenly the steersman said: "We are going to strike a rock. We are going too fast. Everybody jump!" Everybody jumped out but the two steersmen. The steersman had seen the reflection of the stars in the water and thought it was clam shells in shallow water, but they were far from the shore. Most of the men were drowned. They did not come up. Only a few were saved. They towed one boat and went to Qireliaq. Most of them were drowned, so they did not go on to Mummy Island. They took one boat and returned home.

They were after the Mummy Island people, because they were always dressed in sea-otter furs. They got back to Matyangknat and said that the people of Mummy Island had killed most of them, that was why they had got nothing. They were thinking of moving to another village so they would get help to attack the Mummy Island people. They never gave up.

Some people were living at Uerungayik at the north end of Knight Island. The Matyangknat people moved there. Some of them told the truth how they had lost their men. They said that they had been afraid of striking the baidars on the clam shells and had jumped out. The people of Knight Island felt bad when they found out. The Matyangknat people would not give up and begged the Knight Islanders to go with them to Mummy Island, because they still wanted the sea-otter skins. The Knight Islanders did not care for fighting and said: "Why don't you go to Ingim-atya [Chenega] and get some people?"

They headed for Chenega. They were going to kill the Chenega people. It was summer, and most of the inhabitants were away fishing. On the way they met a baidar full of people from Kodiak. The Kodiak boat joined them, they were also going to kill the Chenega people.

Early in the morning the two boats got to Akiqaq [a fishing camp on Chenega Island]. The Kodiak chief told his men: "Do not start fighting! Let the men from Matyangknat start it. Those Chenega fellows are wild, I know them from old." Three men from Matyangknat went ashore while the rest stayed in the boats. Only two families were there putting up fish. The three men went ashore early to catch them asleep. The families heard them coming but did not leave the smoke house. It was a man and his father-in-law. When the first [Matyangknat] man entered the house, the son-in-law speared him, and he died right away. They seized him by the head and feet and threw him out of the door. "Another one can come in and we will do the same thing," they shouted. The son-in-law was a husky fellow, who had nearly killed his father-in-law as he slipped on the log at the door when he speared the man. The two others ran away. Then the old man said: "If your arrows are ready, go ahead and shoot them." His son-in-law tore off the beargut pane from the window and shot an arrow through the opening. He hit one of the men right through the neck. The Kodiak people did nothing. Then the two baidars fled.

One boat returned to Knight Island, but the Kodiak boat went on looking for more people to fight. They found some inside Chenega Island at Tludyun putting up fish. There were three smoke houses there. In the summer few people travel in baidars unless they are going to fight, so the Tludyun people knew why they came. They were all awake and pleased to see them coming. Some of them asked the Kodiak people to come into the smoke houses, others hid, one on each side of the doorway and killed them all as they entered. They had anchored the baidar. All of them were killed. The Tludyun people buried them and kept the boat and all their belongings. No one came along there to fight anymore.

The Killing of the Five Brothers from Kangiaq.
(Makari).

Five brothers came from Kangiaq [Day Harbor near Seward]. Their sister was named after a man-woman called Tyakutyik, "What kind of people are those two." They were going to hunt on Montague Island, as they wanted to get bears' hind legs to make a fish weir. They would put in the whole leg, meat and all, and when the meat was rotted off they would have their winter's supply of fish. On their way back to Kangiaq they came to Chenega. The oldest brother's name was Tutlkia. He had a baidarka frame with him and was fixing it on the beach, putting it together one fine sunny day. He had almost finished when he said: "It is funny, my throat is choking me as if somebody was holding me and didn't want me to finish my baidarka frame." So he chopped it all up.

There were many old men at Chenega. One of them asked him why he was breaking up his baidarka

frame, and he told him the reason. Then the old man said: "You better not go near those Panrhat people when you return." The Panrhat people hated the Seward natives and wanted to kill them. When they went past Panrhat the villagers were pleased to see them. However, the five men were strong warriors, and nobody could get a chance at them. The Panrhat people could not find a way to kill them. So they heated rocks to make a steam bath for them and took their knives in, hidden in fern leaves, so the brothers could not see them. They intended to kill them and placed the brothers in the back part of the house so they could stab them before they left. At first Tutlkia did not enter, only the four youngest went in. Ayarhkangali [a slave?] was putting the rocks in on a shovel. Tutlkia said he did not like to have hot rocks put in a basket to boil the water, he did not like the sound of the boiling water. They told him that they would not do it and put him in back in the corner. They were ready to stab the brothers when all the hot rocks were in the bath house. The Seward men were so strong that they had not taken any weapons in with them. Now as soon as the people closed the door, the slave with the hot rocks stabbed all the brothers, hitting the oldest brother last. Tutlkia said: "You're too cheap. You are a slave. I don't want you to make my blood run." He wanted someone else to stab him. The slave left. Tutlkia wanted to hit him, but the slave was too quick. Tutlkia knocked out the whole side of the bath house, and thus the sister found out what was happening. The brothers had a whole bundle of weapons. It was tied up tight, and she could not open it, but at last she found a woman's knife and cut the thongs. All her brothers were at their last gasp. That was all she could hear when she went to them. If the bundle had not been so hard to unrip, she could have saved them. The wounded oldest brother might have killed all the people.

Then the sister went over to the man who had killed her brothers and said: "Now you have spilled my brothers' blood in the bath house, do the same to mine!" But he would not. "You killed all my brothers. They took care of me, now you must take care of me." She became rich in that place. The people even went to Seward to get all her belongings and all those of the brothers for her. They told the inhabitants of Chenega that they had killed all the people from Seward. Then the Chenega chief asked them if they had killed his son who had been out hunting. His mother was also the mother of the brothers from Seward. They made a "queen" out of the sister and a "king" out of the Chenega chief's son. Afterwards the Chenega and the Panrhat people lived together under one chief.

The Chief of Atyat.

(Paul Eliah).

Patyerua was the chief of Atyat, in Gravina Bay. He had two wives and three male slaves. The people in Gravina Bay were rich, they were dressed in ground-squirrel skins. Patyerua said to his wife: "We cannot go ahead [that] way, because our slaves are that way" [i. e. we cannot become rich, because our slaves are no good]. His wife answered: "We have four baidars, put them in the water." Her husband said: "We are going right away to Fidalgo Bay." He ordered his three slaves to come with him. They manned one of the baidars, and he ripped up the other three boats and sank them in front of the beach.

They went to a place called Arhtuqashkshumiq on a sandspit at the mouth of Fish Bay in Port Fidalgo and went ashore there. The chief told his slaves: "We better stay here for the night." When daylight came they started again and travelled to Aimaqiq [Irish Cove] in Port Fidalgo, where they went ashore. The chief left his slaves in the baidar and went up to the smoke house. There was nobody in there. He looked in the hollowed-out side of the door posts where people kept their weapons. There was nothing there. Then he said to his slaves "Hurry! Paddle with all your might. They beat us to it. Go back to Atyat!"

When they came to the passage inside Goose Island at the reef, they saw something coming around Knowles Head. "What is it?" asked the chief. He rose up with his hands in his armpits so two slaves could stand on his shoulders. A slave jumped on the chief's knees, and he said: "Hi!" Then the slave jumped on his shoulders, and he said: "Hi!" The slave said: "That is not a rock. That is a boat coming." The chief told his slaves to call him by a different name from his ordinary one. "Head for that boat! Don't miss it!" So the boats met at Knowles Head. The chief shouted: "Patyerua is meeting you. You know who is meeting you." The other boat came from Palutat [Ellamar]. When they met,

Patyerua jumped into the baidar and was prepared to kill the other man with his knife, but he said: "You are not going to shed my blood here, a thing like you. Forget that! Let us go down to Gravina Bay and have some codfish." Thus they became friends.

They went to Atyat, the boats being tied together. Patyerua asked the man from Palutat: "How do you get so rich? Our slaves are always trapping in the mountains, but they do not get so many skins as you do." The other man answered: "When I went that way I had good luck." Patyerua said: "Even if I do not go up there I am rich. I'm rich on codfish." The Palutat man said: "Let us climb up the mountain where I get the furs."

The Palutat man asked: "Are you going to leave your wife here? If you do, someone will put a hot spear in you." "What's the matter with this knife of mine? I could stab them with it," Patyerua answered. The Palutat man said: "What is the matter with you people here? Have you got a hot spear, or what?" Patyerua's two wives told the Palutat man: "We are watching our husband, even though we do not like him. He made us kill so many people." Then Patyerua asked: "Show me why you are so high tone." The man from Palutat answered: "My smoke house is full of bear and mountain-goat meat. That is why I am so high tone. That meat keeps me warm in winter." Then Patyerua took off his old boots and gave them to him, saying: "Those are good enough for a thing like you." "All right, I will take your boots, but at sundown you will have a hot spear in your heart." Patyerua answered: "That hot spear you intend to put in my heart will be just as cold as an iceberg to me. I am not like you. You are eating kalaq, that will not dull my knife when I stab you." The Palutat man said: "That knife will not get dull, you say? It is going to get dull on your daughter." He continued: "Let us show our wealth in front of these people. You pile your riches, and I will pile mine."

Their slaves were out trapping, so Patyerua called his slaves from Sheep Bay and the Palutat man called his from Ellamar Mountains. He owned four slaves. All the slaves returned to Atyat. Patyerua's two young wives were eating, when the Palutat man said: "Why do we stay here and get nothing? I should go down to Nagaulik [Narualik?, Refuge Rock at the northwest end of Canoe Pass, Hawkins Island]." "Why do you want to go there? You will not find anything," said Patyerua, "what do they have there?" "They have lots of beads," said the Palutat man, but we are not rich enough to have them." "Do you really want to go," Patyerua asked. "Yes, my wife wants those beads." "Do you think we could go down there and get them?" "Let us go down," said the Palutat man, "but I will not end the trip unless I get the beads. Let us go to Sheep Bay first, I want to see the people there first."

So they went to Alukaq in Sheep Bay. When they came ashore [in English:] they all shake hands, nobody get into trouble. "Too bad that you come here when the young men are resting," said the people from Alukaq, but Patyerua answered: "We are not coming here visiting, so we could go up the mountains." Then he told them that they intended to fight the inhabitants of Nagaulik. The Alukaq chief said: "We are not ready. We did not expect this. I was going there myself. Iluarhaq, you beat us to it. I should like to go there, too, but I am not ready. Rich people live at Nagaulik." Patyerua asked: "Do you know when we can go there—when we can get across?" "What kind of chief are you," said the man from Alukaq. Patyerua asked again: "Will you go ahead of me when we go down there?" The Alukaq chief, who was a shaman, answered: "I will give you my spears. Nobody can resist them. I will help you if you go ahead of me."

Three baidars went across to Nagaulik and arrived there at daybreak. Patyerua put boards on his head so that he could climb, and the shaman assisted him. The people on top rolled boulders down, but they did not kill him because the rocks rolled off the boards. As soon as he got up he took off the boards. The men on top seized him. The shaman called out from below: "Stab him right away!" Patyerua answered: "I have stabbed him already." The Nagaulik people were yelling: "Erh, erh! Aha! A fellow like you, the chief of Gravina Bay, you think you are going to get the best of us, but you're not!" Patyerua had stabbed the man, but his knife was dull. He had slept with his wife when she was menstruating; he used to take the knife to bed with him and put it between them. So it did not hurt the man. Although he stabbed him right in his heart, he just got strong. The man from Nagaulik cried: "You people from Gravina Bay, you come here! A fellow like you, hi-hi-hi!—the chief of Atyat . . .! No end to this trip of yours! We're safe here. When we come to your village we will return with lots of things, but you will go away with nothing. Go back now!"

When he returned to Atyat, Patyerua said to his wives: "I did not have luck at Nagaulik, but now I am going westward to fight." He felt ashamed and intended to go to Kodiak. For many years

they heard nothing about him and were not bothered by him either. His two young wives became old and gray before their husband came back; they thought that even his bones must have disappeared. The young people were playing outside when they shouted: "Visitors coming!" Then they cried: "That man looks like Patyerua." The old women were hugging each other, saying: "That sounds like our husband." They were so happy that they seized their knives and stabbed each other and died before their husband came back.

The Fight between the Chugach and the Kodiak Eskimo.

(Makari).

One summer the men from Qilangalik left their wives on the refuge rock at Johnson Pont, Hinchinbrook Island, while they went hunting for fur seals. While the women were alone a war party came from Angiarhtalik on Kodiak Island. The women did not want the enemy to see that there were no men with them, so they made themselves moustaches of bear fur and brandished spears, but one woman leaned over, and her moustache fell off. Then the Kodiak Eskimo realized that there were no men present. They made a ladder out of spears and climbed up onto the rock. Some of the women were killed, others they carried away to be slaves or to be their wives.

In the middle of winter the men from Qilangalik went to Angiarhtalik to avenge their wives. They arrived while the inhabitants were eating supper. They sat down under the window, looking in, and let the snow cover them. The people inside were eating land otter. After that they wanted to play dice with a land-otter humerus. A man threw it. "Tell us the truth about what is going to happen." Every night the Kodiak Eskimo played this game to find out if the Chugach were coming; before the die had always fallen at "one". This time the bone stuck upright on the elbow end. "Is that the truth that the Chugach are going to close us in?" The man threw it again, and the bone stuck the same way. "Is that the truth that they are going to kill us?" An old man said: "Do not mention the Chugach. They are like ducks, they may come any time." So the man threw the bone again, and every time it stuck on the end. Then he got disgusted, spat on the bone and hurled it out of the window. "I don't believe you, you old bone. You cannot tell the truth." But the old man said: "Do not talk about the Chugach. They are like the birds, they may come any minute." They were outside listening to everything that was said. The bone fell between them. A young man inside the house got up and closed the window, saying: "I am going outside to see if they are there." The women were all sitting around the fire. The young man went out [and returned] and fell down in front of the fire, but nobody paid any attention, because he always did so to make people believe that the Chugach had arrived. They were all afraid of them. They heard him bubbling. The men outside had speared him, and his blood was running out. The women cried: "Look, his blood is running out. The Chugach have speared him already."So they all started to run into the sleeping rooms, and most of them ran into the bath house and closed the door. They heard the men outside, saying: "Do not kill the old man who was sticking up for us." They killed all the men but did not harm the old man and the women. They found the old man hiding by the bath-house rocks. The Chugach chief said: "Do not bother him, he was sticking up for us, take care of him." Poor fellow, he was all shivering. They recognized their own wives but [some of them] did not take them back. They took young girls, and some took their wives back. They carried off a lot of young women as slaves. They also took the old man and treated him well. He was always served first when they were eating. They returned to their home before spring and lived just as they did before. When the old man got [very] old they took care of him and buried him with all kinds of expensive furs. After that they never left their women alone, but they always left a couple of young men to look after them, when they were out after fur seals.

The Fight with the Tanaina.

(Stepan).

The Tanaina from Cook Inlet used to come here and kill people. There was a chief on Montague Island. He called all the people of the Sound—from Ishamy, Nuchek, Chenega, Ellamar . . . all over. All the chiefs met at Montague. The Montague chief told them: "We do not want to go to another place and start over again. Strong men must fight and kill the other people, kill them with the bare

hands, not with club or spear. We are tired of those people from Cook Inlet coming here. They come and try to kill us at night while we sleep. Get ready, and we will go to Chenega. Kiss you wives and children and be ready to die. Do you approve of the idea?"

They answered yes, and the chief said: "We will play to-night." They began to play, dancing and wrestling, in order to find out who was the strong man. Then the chief told all the different people to return home and said: "Come to Chenega on so-and-so a day." They all remembered, and he told everybody to be sure.

Atlutaq came from Montague with twenty-five men in baidars. Shanua came from Tatitlik, a strong man, twenty-eight men with him. Alagushknaq was the leader of one baidar from Tatitlik, another strong man. Apanguq from Makeli in Unakvik Inlet, a strong man too, had twelve men with him; there were not many people in that place. One man from Nuchek was also a strong man called Nayan. All the people arrived at Chenega, everyone. They all made ready to go. Their shamans told them they were going to win the battle. One shaman said: "Those people from Montague Island will come back all right. The people from Tatitlik are going to return the same thing."

In the morning they all left Chenega. All their families cried. The men bade farewell to their families. There is a long beach toward Day Harbor where everybody went. In the morning they left the beach. From there they travelled to Qutatluq [Seward]. The chief there asked them: "Why do you come here that many?" They answered: "We are tired of those Tanaina, those people from the westward. We will use no club on them. We intend to use our hands on them." That was in May. They all left Qutatluq, and the inhabitants of the village went with them, otherwise they would have been killed. They arrived at the middle of Cook Inlet.

The chief saw something like ducks coming; it was baidars and baidarkas. Some people are able to prophesy the weather. They let one of them look, they thought it was an approaching storm. He stood up and looked, saw the baidars and said: "I suppose those people are coming to fight us." Shanua went right between the other baidars and told the men to get ready. They were all ready before. Then they got together with the Tanaina. Atlutaq went right in between them and asked them why they had come. The Tanaina said: "We have come to kill you." Atlutaq answered: "We are all ready. Land or sea, all the same with us, any place. If you prefer to fight on land, all right. Strong men can do just as well on land as on the water." The baidars all got in one place, lying alongside each other. Atlutaq told the Tanaina to fight and not to be afraid. He put his baidar head on into the side of a Tanaina baidar and let two of his men spear it in the bottom. He was killing the men in the baidar. Shanua did the same thing. The paddlers kept on pushing into the Tanaina boats and would not allow them to move. Two men, Shanua and Atlutaq, handled all the baidars and killed the people. They saved the lives of all the inhabitants of Prince William Sound.

When they had finished they all returned. They brought back one Tanaina baidar with its crew. They first arrived at this place [Chenega] and then they went to Montague. They told the Tanaina to fight with their hands one at a time, but they were too afraid, so they took them for slaves. They divided them up among all the villages: "Which has more men, they give them two." That time all the water at the mouth of Cook Inlet was bloody, and that is a big bay. After that the Tanaina did not come to Prince Williams Sound any more. This happened before the arrival of the Russians.

The Massacre at St. Elias Rock.

(Makari).

The people of Kodiak, Nuchek, Mummy Island, Palugvik and all around went together to Kayak Island to hunt sea otter. When they finished they were coming home in their baidarkas. It started to blow. They all got together in the middle of the ocean and tied their boats together. The wind was strong, and some of them gave up. They tore up their gutskin coats and even cut their boats apart. There was no hope for them; they knew they were drowning. The single baidarkas swamped.

Some did not cut their boats, however, and drifted with the wind. They drifted toward St. Elias Rock. Two men were there hunting; one was Yakegua, the other was Irquq. They seized their spears and killed all the sea-otter hunters as they drifted to the beach. Some of the others drifted to Montague Island, and some to Kodiak. Many were drowned. Some drifted outside Boswell Bay. That's why there are so few Chugach alive since then. Those who got to Montague came to Nuchek and told what had happened.

Yakegua was a Yakutat from Chilkat River. He went to Eyak and boasted of what he had done. They [the Russians?] sent for him and brought him to Nuchek. As they landed with him in the winter time they tied him up and sent for Irquq, who was an Eskimo from Gravina, but he had died as soon as he returned. They did not get a chance to punish him. The chief ordered to make a lot of small arrows with stone heads. Yakegua was lying on the beach tied up. He stayed there over night, stripped naked. He was strong and was not cold at all when they untied him next day. They stood in two lines and untied him. As he ran between them they shot arrows into him. They stuck all over him, he could hardly make a step. The Russians[?] cut off all his finger tips, his ears, and his nose. He did not even say "boo". They made him eat his own nose. The tears started to run but he did not say a word. He kept spitting and said: "When I killed those people I didn't make them eat their own noses." When they noticed his tears they said: "We made you cry at last." He was so strong that they could not hurt him, and he said: "No, the tears are running themselves. I am not crying." They did not kill him, but they cut every joint in his body except his legs. His eyes watered all the time, but he did not cry. Finally he died when they cut his arms off. They left him there when he bled to death.

(Makari's grandfather was alive when this happened).

The Slaughter of the Yakutat at Taukhtyuik.

(Makari).

Some Indians from Yakutat were coming along killing people in every village. It was summer, and twelve men came over land. They would take the people they wanted as slaves and kill the rest. Fall came while they were still on the way, and it became winter before they reached Chilkat River. So they made big sleds and had their slaves drag them. They had more slaves than they were themselves. They planned to kill the people of Mummy Island and stopped at Point Whitshed [near the Haltness Cannery site].

The Mummy Island people used to go to Taukhtyuik in winter. From there they saw the smoke at Whitshed. They sent four men in two baidarkas over there. The Yakutat had no boats, and when they saw the baidarkas they told the men they were poor and had no boats or anything. They said they had come to have a potlatch and dance, but they had really come to kill all the people around here. One of the Taukhtyuik men was able to understand the Yakutat.

The two baidarkas returned to Taukhtyuik. Then they took a large baidar and went back [to Whitshed] and brought all the Yakutat over. The Chugach were glad to see them, because they liked to watch them dance. That evening they started dancing. Everybody was eager to see them. The Taukhtyuik people took turns dancing. The Yakutat were acting good; they were not wild at all and never let on what they were after. They stayed about a week, changing every day and acting different. The Chugach noticed it and thought that maybe they wanted to fight.

Apanga, the "Little Chief", knew about the twelve Yakutat called "Killerwhales". He thought they were the same. So he went to Nuchek for help. He sent for men to Montague Island and Chenega and Sheep Bay and Gravina Bay. He waited for them just around the point from Taukhtyuik and told them all to come to the village in so many days. He left them behind the point and went ahead to Taukhtyuik alone. He brought back a lot of tobacco from the post at Nuchek. The Indians were crazy about it, and he gave each Yakutat a piece, telling them that the Nuchek people had sent it to them.

The Yakutat had taken his wife while he was away. He went into his bath house but could not find her. He went to the door several times and pretended to vomit, but each time he told his people to stay awake. "Early in the morning while the Yakutat are asleep the other people will be here." The Yakutat slept in a big bath house and their slaves were in there too.

The allies walked along the beach to Taukhtyuik. There was deep snow, and the first man froze to death coming from the point. The man behind him found him dead, but he had broken the trail. One man crept to the Little Chief's window at daybreak and tapped. "We are coming now," he said. The chief placed his young daughter, Matuqun, in front of the Yakutats' door, with her back to it. "Go ahead!" he shouted. There were so many they shook the ground as they came.

The Yakutat bath house had two windows. When it got daylight the Chugach could see how the Yakutat were lying, and they started to spear them through the windows. They killed one after

another. The Yakutat could not get out. They tried the door a little but were afraid to come out; they knew they would be killed. One man, however, jumped through the window and down to the beach before the men outside had a chance to spear him. They chased after him. He ran on the beach, squealing like a pig. Five men chased him. They said: "He is badly wounded, we'll get him later", and turned back.

One man from Gravina had a black bearskin over him. He was poking through the windows with his spear. The rest had moved away. He was spearing the Yakutat through both windows. They heard a shot. It was the Yakutat chief, who had a pistol. He fired one shot as he died. The Chugach had never heard a gun before, so they slacked down for a little while. One Taukhtyuik man had been sleeping in the bath house. He tried to climb through the window. The Eskimo outside tried to pull him out; the Yakutat pulled him back. His name was Angatale. Finally he was saved. They pulled him out, but one of his legs was pulled out of joint. They carried him away, because he could not stand. No Eskimo were killed.

After they had killed all the Yakutat they tracked the one who had run away. When he jumped through the window over the bank, he had cut his knee on the cockle shells. He climbed a hill behind the beach and watched his friends die. He tore a piece from his clothes and bandaged his knee. They could not find him.

That winter a hunter found the Yakutat who had escaped, still alive. He said he was very hungry. He said: "I wish you would take me back across there." The hunter took him back to Whitshed and gave him food. The Yakutat said: "I thought we were tough, but the Mummy Island people are the toughest I have ever seen." So he returned to Yakutat.

When the hunter went to Nuchek he told them he had saved one of the Yakutat. He thought they would thank him, but the Russians gave him a licking so that he died.

Ever since then the Yakutat have been wild. They were always wanting to kill the Nuchek people. Once they arrived in a big fleet of dugouts, but the American Coast Guard boat[?] was there and would not allow them to land. Whenever some of them came to Nuchek to trade, the church bell would be rung and all the children would have to stay indoors. Sometimes the man who escaped would come with them. He always tried to quiet the young men and told them: "Be careful or we'll all be killed. These Chugach will slaughter us like animals. I know!"

(The Little Chief's daughter was Makari's mother's mother. Her real name was Nana, and Makari's sister was named after her, but she acquired her other name because she was sitting at the door. People used to say that she had killed the Yakutat, since she sat with her back at the door and would not let them out).

The Soldiers that Ran Away from "Rooshia".

(Makari).

When the Americans bought Alaska there were ten soldiers who ran away from "Rooshia" [Russia], because they did not want to have their hair and beards cut off. They did not want to burn their hair. They wanted to look like Jesus.

A three-masted schooner went to look for them. A giant saw the schooner and said: "What a pretty play boat." He waded out to it, and the water came up only to his knees. He picked up the schooner and said: "I'm going to take it home." The people were afraid to kill him. They begged him to let the schooner go, and finally he did. The captain, Akuliaq [i. e. the space between the eyes], was the only one who knew where the soldiers were. After the giant left, the captain marked it on his chart. The bay where they were is clear of ice for only one week in the year. The captain saw pigs', horses' and cows' manure, and he could hear the chickens, but a big fog came and it became cold. He had to leave. He finally came back later and talked to the soldiers, but he would not give them away. He used to come every year when the ice went out. He never would let anyone see the chart.

He had a son. When he was sick he kept the chart under his pillow. Then he told his wife: "I wish you would light that heater and get it good and hot. Then you can call me." So his wife lit it. He knew he was going to die. He told his wife and son: "Drag my bed alongside the heater. Reach me that roll of paper under my pillow." So they took it out and gave it to him. He put it in the fire and watched it until it burned to ashes. It was not half an hour until he died. Then his wife told the people what she had done. (The captain died somewhere outside in "Rooshia"). They told her: "If you had any sense you would have given the chart to your son, and he could have taken his father's

place. Now he is only good for a slave." The sailors told the chief of the place: "That must be the chart he used in order to take us to that place. There is only one week when the ice goes out." They made a slave of the son.

That is why they [the Russians] could not find that place. Twice they went to Copper Center but could not find it. They went up Copper River. They were short of food. The captain said: "We better turn back. We are short of food." Then the Indians above Chitina told them that two men had come from above them, so they asked who they were. But the Indians did not know where they came from. The two men arrived, and the Russians told them: "We are looking for those soldiers who ran away from Rooshia." The two men showed them their gun. They had bought it from the soldiers. The man from the boat wanted to buy it, but he did not have any money. The gun was quite different from their own guns. The two Indians could trace the place [i. e. lead the Russians to where the soldiers were]. But the leader said that they were short of food and could not go there if it were far away. The Indians told them: "When we get there, the people have iron fences and a stone fence. They would not let us in, but they would sell us anything we want."

They never found the Russian soldiers. They looked for them in the summer but returned in the fall. Some day they will find the place. One man came back from outside. He was going to look for them. His name was Sherebreneku [Serebryanikov]. He said: "Those fellows did not go far enough. They just went as far as an old woman goes to the bath house." He took a great many soldiers with him, but he was killed by the Copper Center Indians.

Legends and Myths.

Beside the historical traditions the Chugach possess a rich store of legends and myths. A tale of this kind is called umixkuaq, and whereas the narrator will end an account of a comparatively recent event with the word "naŋaluni", he will always finish one of the old tales with the word "qʊntikɪʃ", both meaning something like "that's the end" or "that's all". In our days, when the whole mythology is breaking down, the distinction is not always made, however.

There are some tales evincing the same epic character as most of the legends of the Arctic Eskimo, although the details are generally quite different. On the other hand the animal tales, which among the Eskimo outside Alaska are mostly rather few and insignificant, take a very prominent position among the Chugach. The most important character is Raven, and there can hardly be any doubt that the Raven tales told by our informants are only fragments of a long Raven cycle. A few tales, which are also entirely un-Eskimo, deal with the Sun and the Moon. The wide-spread tale of the sun and moon being sister and brother was not known at all, however, and the equally well-known story of the Girl who Married a Dog appears here in a totally different form.

Several other tales, which are common to the Greenland and the Central Eskimo, were unknown in Prince William Sound, *viz.*: The Brother and Sister who Turned into Thunder and Lightning; The Origin of Death and Daylight; The Bear that Turned into Fog (the "magic flight"); The Owl that Married a Goose; The Girls who Married a Whale and a Falcon; Kâvssagssuk, the Orphan Boy; Igimarasugssuk, the Cannibal; The Woman of the Sea (the Sedna myth).

Of North Alaskan legends the following apparently did not occur among the Chugach: The Eagle who Taught People how to Feast; The Giant Mouse; Misana who Visited the Land of Darkness; The Woman who Turned into an Owl. It is more astonishing that Chugach mythology seems to differ considerably from that of Kodiak[1]; but it should be remembered that the collections are very fragmentary.

[1] Cf. Lantis 1938 a, 123 ff.

There were stories of the Origin of the Salmon and of the Woman who Turned into a Spider, but they were not remembered by any of our informants.

The Little Porpoise.
(Makari).

There was a little porpoise, Mangaq. He was going to take away all the ghosts and evil spirits from Arhuartulik [the head of Cordova Bay]. He had a one-hole baidarka and started off with it. He was killing all the ghosts off. One of them was called Kaparshushik; his wife was Akatageli. She lived on one side of the bay, and he lived on the other. When anyone came to the head of Cordova Bay, he would call: "Don't go on that side, Akatageli will get you." And she would say: "Don't go that way, Kaparshushik will cut you up." Akatageli used to rip up the baidarkas with her woman's knife, and Kaparshushik would kill the people with a stone thrown from a seal pelvis. Another spirit at the head of Cordova Bay was the chief. His name was Shuigriliq. The Little Porpoise killed the chief too, but before he died, he said: "When you go back you will meet a whale, and he will get you."

When he returned in his baidarka he saw the whale floating right by Nugaq [North Island]. The Little Porpoise had a copper[-headed] spear with which the spirit used to kill people. The whale flipped its tail and tipped the baidarka over. The Little Porpoise's parents were living at Iralik [the lagoon near Makaka Point on Hawkins Island]. They worried because he did not come home after so many days. Just above the lagoon there were other people living at Nagaulik. The parents of the young man went out to look for him, and the Nagaulik people told them that they had seen the whale tip him over with its tail; they had seen it from their place. He had been gone for a week, and the parents were looking for their son every day. Finally they found him on the beach called Shukluruni-linguq, just above Makaka Point.

Then the father and mother rolled him over and set him up. He drew a long breath and told his mother he was tired. One side of his face was eaten up by sand fleas. Then he said to his parents: "I killed all the spirits at the head of Cordova Bay. I met a whale coming back, and hit him with my weapon, but he flipped his tail and tipped me over." He had killed the whale, but he did not know it. That young man killed all the spirits. Formerly anyone passing North Island at the head of Cordova Bay had disappeared. Now they were not afraid of the spirits any more. After he came to life, the Little Porpoise used to go out hunting.

The Woman who Became a Spirit. I.
(Makari).

There was a village called Qilangalik at Johnstone Point [Hinchinbrook Island]. A man and his wife left the village, knowing that a woman had run away from there before. Her name was Aranaq. As soon as they came around the point they heard someone shouting at them. They went ashore with their baidarka and saw that somebody was coming down [to the beach]. That was a year since the woman had disappeared. The woman coming was sniffling. Her clothes were all worn along the bottom. When she got to them she said that she was hungry. Then they knew she was the woman who had run away. They realized that she had turned into a spirit. Her face was human, but the top of her head was pointed. Then the man built a fire and told his wife to cook something to eat. He was shoving his baidarka down towards the water whenever the spirit was not looking. When his wife gave her something to eat, she swallowed it without chewing. The man was afraid. He motioned to his wife to go towards the boat as if she intended to fetch something. The spirit's face was changing all the time she was eating. The man was ready to paddle right away from the place. They could hear her teeth grinding:

"aja·ŋa	auxkuk	pituʀcikaxka"
"I want	you two	I will eat you up"

"You fooled me, but I'll get you yet." She ran right into the water. They paddled around the point to the village. They knew that if they tried to land any place the spirit would get them. People never used to go around that way [afterwards?] even when hunting.

The spirit was a young, unmarried girl. Every evening the people used to shout for her, saying that they would feed her; they wanted to tame her. But she never came.

Long afterwards a baidarka with two men came towards Nuchek. They landed at Qangaillik. These two men lived at Nunatlaq in Constantine Harbor. If anyone saw the woman she used to get so small that they would not be afraid. Then she grew big. Everybody at Nunatlaq had seen her. Even when they called her, she would not come. They knew who she was and that she had run away from Qilangalik. They wanted to tame her. Then they tried to catch her and kill her. She knew that they were hunting for her, and knew every time they went out after her. The Nunatlaq people had their own shaman. The Qilangalik people told him to try and catch her before she got big and strong and became a real spirit. The shaman started in. He found her at the head of Shapulut, a creek emptying into Constantine Harbor, and killed her. Then he came over to the people and said: "I have killed her already. She was easy to get." The shaman's name was Irutyu. Since then they were not afraid to go round [the point]. So the people from Nunatlaq sent the men up to Qilangalik to let the people there know that she was dead. If she had been really strong, she could have killed everybody in both villages.

(This woman invented the stone-juggling game. She used to play it after she began becoming insane, but before she ran away).

The Woman who Became a Spirit. II.

(Paul Eliah. A Gravina Island myth).

People took a mad woman to Gravina Island [and left her there]. She had three brothers, and every week they used to bring her food. Then they would ask: "How do you feel?" She answered that she was feeling better, but really she was getting worse. The last time she said: "I want to go home." "All right," they answered, "the next time we will fetch you." The next time they arrived in two baidarkas. They came three men in one baidarka and two in the other. One of the men said: "Watch out, she may have changed." When they landed [they saw] her head was pointed.

One of her brothers said: "Come, I will take you home." "Wait, I have forgotten my sewing bag." When she brought it, before she got on board, her brother asked to see it. She opened it: it was a whole human face. Then her brothers became afraid. "We have finished with you. You will have to stay here and turn into a rock." So they left her.

She turned into a spirit and flew away and bothered the people. She had a song. She cried and sang it when her brothers left her. Then the girl flew to the mainland and walked along the beach. There she came to a rocky headland which she could not cross. It is called Aguitlkuraq, i. e. Impossible to Cross. She put [turned into?] the rock there.

The Mountain Goat Hunt in Sheep Bay.

(Paul Eliah).

The people from Port Wells and Chenega came to Sheep Bay and had a big meeting in the smoke house. It was winter. They were getting ready to hunt mountain goat next day. The Sheep Bay people said: "We will go with you, but we are not going to hunt very hard." They knew the places and were just going to show the others the way. One Chenega man said: "I am not going to let that Sheep Bay man beat me. He is eating red-salmon soup." The Sheep Bay man answered: "All right, you eat spruce-hen soup and I don't, but you will not leave me behind. I will beat you hunting." He was a goat hunter.

They arranged to race up the mountain. They started at daybreak. They had dogs with them when they climbed. All of them had snowshoes. The young men put them on before they turned their dogs loose. Soon they heard the dogs barking. A Chenega man shouted: "Go ahead, the dogs have got a goat." The Sheep Bay people were the last, while the men from Chenega and Kiniklik were ahead. They were passing over a small peak on snowshoes. The hunter from Sheep Bay got to the goats first, even though he had been last. The dogs had the goats surrounded. He looked around, and nobody was in sight. He killed the first goat he saw with an arrow. Then he took off his basketry hat, put it on the goat and left his arrow in it and kept on going. The second one he shot with an arrow he covered with his ground-squirrel coat. He killed a third . . . he killed all the goats before anyone showed up. On the way back he met the others [only] halfway up.

The old men from Sheep Bay started to sing out when they saw him: "Hi, hi, hi! Even though we eat red-salmon soup, and those people eat spruce-hen soup, they can't beat us." The Chenega

and Port Wells people were too ashamed to say anything. Then the hunter from Sheep Bay said to them: "Here are some goats for you. I got them so you could roast them in the fire." He gave all the goats to the Chenega and Port Wells people and just kept enough for one meal for his own people.

That is why the others are all afraid of the men from Sheep Bay: they are so swift.

The Orphan Boys who Avenged their Sister.

(Makari).

There were three orphan children who lived at Qirhliaq in Anderson Bay. They were two boys and a girl. Once they went to pick berries in the summer. They met a brown bear, and the boys ran away and left the girl behind. Then the bear ate the girl. She had an apron and a head ornament made of shell beads. The boys came back to the smoke house and began to cry. When the people asked them why they were crying, the boys said: "We lost our sister. The bear ate her up."

When the winter came, the boys used to jump into the cold water every day in order to become strong. The old people used to do so. After diving thus the whole winter the boys got strong. They packed big rocks and piled them up on top of each other. Thus they realized that they were getting strong.

In the spring they went to Port Etches to hunt bears. They made a copper spear. They killed many brown bears during the summer, and each time they investigated the stomach to see if there were any *Dentalium* shells. They killed many hundred bears. They just killed them and left them on the spot. At last they found a piece of the shell apron in the stomach of a bear, and when they found that they took it home and stopped hunting.

Then they left their home. They told the old people that they intended to travel all over the world. They left without food or bedding, but they did not feel hungry or cold; something helped them. When they returned they told everybody that they had been all over the world. Nobody had cared for them before, but now they made both of them chiefs and gave them both the same name, Aguayaralik, *i. e.* the Two Destroyers of Bears.

(These two orphan boys were the same who killed the big octopus in Hawkins Cut-off.)

The Three Orphans Who Took Revenge.

(Makari).

There was a village called Tratlqurhaq on the other side of Copper River, where there lived three orphan boys who were very much abused by the people. They tied them up so they could not move and threw them into a house. They had a song, and the oldest brother said: "Let us sing the song!" The others said: "Go ahead!" and they sang in the dark. The villagers had put up great stones outside the door and the window so they could not get out. However, as they were singing in the dark, the house disappeared and they got free without knowing how, and suddenly they had spears and bows and arrows in their hands. There were many people living there. The boys first went after the chief and killed him and his wife and all their children. When the other people found it out, they all took their baidars and left. Then the boys also went away.

The Deceived Husband.

(Makari).

There was a big village called Kangilik near Seward where many people were living. There were two bays at the place, and people lived in both of them. They used to visit each other and bring each other game. Near by there is another bay called Ualeq [Nuka Bay] where they also used to go. A man from Kangilik went out hunting. His name was Tugatuaq and that of his wife Aqa. They had a small bird like an owl [$e^{d}j\cdot k$]. The man stayed away for a long time, it was stormy, and he did not come home when he had said. It was blowing hard, and they were afraid he was drowned. The bird was sitting in the smoke house. One morning some days after the bird started to sing, while Aqa was in the house:

aqä aule	Aqa come out
aqä aule	Aqa come out
tu·gatuAq iguARtuq.	Tugatuaq is coming round the point.

He was singing so all the time and said: "Why don't you come out [of the sleeping room], he has arrived already." Aqa had another husband already as she did not expect Tugatuaq back. The bird sang:

aqä aule	Aqa come out
aqä aule	Aqa come out
tu·gatuʌq qutmän	Tugatuaq is already on the trail.
julone apʀutmɪn.	

It was early in the morning, and the man was sleeping with Aqa. The bird kept on singing that Tugatuaq was coming, but she did not mind. Everybody in the house heard the bird. It sang:

aqä aule	Aqa come out
aqä aule	Aqa come out
tu·gatuʌq amɪk tɪkɑt·a.	Tugutuaq is already at the door.

He sang:

aqä aule	Aqa come out
aqä aule	Aqa come out
tu·gatuʌq matʋəra.	Tugatuaq is opening the door.

He continued singing: "He is already inside the door of the smoke house . . . He is now at the door of your sleeping room . . ." Tugatuaq seized the man by the hair and pulled him out and speared him. He did the same with his wife and speared her too. Then he took the bird down to his baidarka and went to Ualeq, where his wife came from. She had many relatives there. Tugatuaq said: "I killed my wife, because she slept with another man and did not pay attention to the small bird. That is the reason why I came over here." He left the bird in the smoke house and it started to sing:

akaga·guta·ŋa	She was shaking(?)
aʃɪrauʟoa	she got angry at me
äʟɪn ʋlɪxnaluɳɪ.	she was nervous(?).

Tugatuaq asked for another woman, and they gave him one. He promised them not to move to another village and stayed there afterwards. His [new] wife was all right.

The Woman who Liked Liver[1].

(Paul Eliah's wife, Stepan's sister).

There was a young man who was married to a young girl. She liked seal liver best. Her husband went out hunting seal all the time to get liver. Once he brought her a tiny little liver. She said: "That looks like my younger sister's liver." She began to cry and cried all day and night. She did not eat the liver nor anything else, nor did she cook for her husband. Every time she looked at the liver she cried.

Her husband said: "What is the matter with you? Don't you feel good? You cry all the time." "No," she answered, "I want to see my younger sister." "All right," he said, "I will take you home today. You can see all your relatives."

He took her home in his baidarka and said: "You can go up and see if they are at home. I will stay here. I think they have gone away, the smoke house is not smoking."

When she was going up the trail she found a skin doll dressed in fur. She picked it up and said: "This looks like my younger sister's doll. She must have dropped it when she was playing on the beach." She entered the smoke house and did not see anybody. She looked all over, in the sleeping rooms and the bath house. Nobody was in there. Then she looked on top of the bath house. There she found her sister's hand cut off above the wrist, with a wrist band of sea-otter leg fur. She put the hand inside her dress and said: "All right, I'll get even with my husband." Then she took the skin doll and started to sing to it. She sang: "Will you tell me the truth where my parents and my sister are? I have got her hand." The doll started to move as she was singing. After it moved she told it

[1] Cf. the beginning of the Aleut tale in Golder 1905, 215 f.

to stop and called to her husband: "Come up! I found something here, something funny." "All right," he said. He came up and she said: "We will make a steam bath. I think my family is somewhere [else], not here." He was busy chopping wood and she took the rocks from the bath house. As soon as the fire started to burn she said: "I am going to sing a song. The fire feels fine." "Why do you want to sing?" he asked, "you never sang before." "I feel good because I am at my parents' house."

She got about halfway through the first song, and her husband felt sleepy. He said: "You better not sing. I am getting so sleepy that I can hardly keep my eyes open. I have got to put the rocks in so we can take a steam bath." But she would not stop. She sang, and he stretched out by the fire. He could not move. "I am getting sick, you better stop singing." "What is the matter," she asked, "is the fire too hot?" She was singing a dead person's song. She had tried the song on the doll, and it had come to life. So her husband died there. After that she threw his body on the fire and said: "I got even with you now. You fed me with my father's and mother's and sister's livers."

(Ma Tiedemann went ashore at Paul Eliah's camp in Sheep Bay and got this story from his wife. She came aboard immediately after and told it to us in English. Paul Eliah's wife was "too bashful" to talk when we were around.)

The Dwarfs on Hawkins Island.

(Makari).

There was a village on Montague Island. Two men from there went out hunting. They headed towards Hawkins Island. There they went up in the woods in order to hunt. When they climbed up a mountain they saw a flat below them, no trees at all. They heard someone shouting: "Ahoo! A boat is coming." They could see nothing but the bare flats. No people were supposed to live there. Then they discovered smoke coming from the ground and went down to the flats.

When they arrived there they saw a little man moving on the ground. They realized that he was not human. He came to meet them. The smoke houses were so small that they could not get into them. They could pick them up like toys. The two hunters made a smoke house of bark for themselves alongside the little people. They were as big as a thumb. The little fellows said: "Don't abuse us. If you do you will never get home." They did not like their houses to be picked up.

The two men started to eat, when one small man came over and said: "We found a whale which we are butchering on the other side." A whole bunch of dwarfs were on the beach. They were butchering a silver salmon; they called it a whale. The two men took a whole side. The little fellows had a small piece each.

They stayed there a long time. They hunted and never got hungry. They had brought meat with them too. Some days later a little fellow came over and said: "We have found a brown bear in a hole. Come and help us!" They took their bows and arrows and went. The bear's den was just above the salmon bones. They saw no bear, but there was a mouse hole. All the little men were standing around the hole with bows and spears. Then the two men left and paid no attention to them anymore. The dwarf came again. "The bear is biting one of our boys. Come and help us!" They thought it was strange, for they saw no bear. A little man was lying down before the mouse hole; he had been bitten. The two men began to dig in the hole, as they wanted to know where the bear was. They found a mouse and broke its neck and threw it on the ground. The little men were glad to get the bear; it had killed one of them, his face was all covered with blood.

The little fellows had never seen big men before. Their home was far away in the mountains. They were called inuaruL·v't. Anyone who found them was very lucky all his life. People seldom saw them.

The two hunters stole two of the dwarfs and hid them in their clothes and took them with them for luck. They walked and walked, but when they looked around they had not moved. They worked hard, but could not get anywhere. The little fellows told them that if they took any of the dwarfs, they must turn them loose or they would never [be able to] move, but they were so tiny that the big men could not hear them when they shouted. They turned the two dwarfs loose and they told the men: "When you get home do not let anyone come this way, because they will never get home."

The men landed at Qareretlua (in Billy's Hole, across from Columbia Glacier) and returned to Qaugiaq (i. e. Gravel) on Montague Island. There they told of finding the little men and of trying to steal them, but the little fellows were strong and held them so they could not move.

The villagers began to shout: "There is a one-hole baidarka coming around the point." It was quite calm, but the baidarka tipped over as the man landed. The people laughed at him, and he sang:

tawa·ne imna	There away
xwɪka nuna·ŋiala·ŋa	when I was looking for the village
qaugiaʀLʋrqme	Qaugiaq,
taume manixkuala·ŋa	when I was in front of there,
taume tagniala·ŋa awa·ne	when I was trying to land there,
tuakin xwe kiᵗḳŋuta·ŋa awa·ne	then I upset myself.
tuakin taume awa nik·ula·ŋa	Then when I stood up
awa ɘL·ɪ·n aŋilaʀpa·lɪ·t	those women were laughing,
iliŋeʀLu·guät alerluge	I could see the space where their teeth
	were missing when they lifted their lips,
aŋilaʀpa·lɪ·t	they were laughing
iliŋeʀLu·guatin.	the space where their teeth were missing.

Everybody ran away and went to their smoke houses. The women were ashamed. The men came back and helped him to land his baidarka.

The Fire Dwarfs.

(Paul Eliah).

There was a village somewhere near Chenega. The people there ate nothing but sea animals. One married couple had a young son-in-law. A great many baidarkas used to go out hunting, but the young man's boat was always empty. He never got anything.

His mother- and father-in-law wanted to know why he never got any game, when the rest of them did. So the mother-in-law said: "You better stop hunting for a while. Stop sleeping with your wife for a while and stop eating. Get up early in the morning before anybody else, and get young trees for fire wood."

When he returned from fetching wood they made him take a steam bath. Five days he got young trees without eating. The fifth day he was making a steam bath, and he had a good fire, but it went out suddenly. He stooped down and blew and blew right under the fire, but it would not go. When he bent over he saw a little baidar with six men, three paddling on each side, under the fire. He put in his arm and took the boat. They were paddling all around the fire. He took the boat to his mother-in-law in the house. The parents were quite old. They became glad and said: "Happy days are coming to you now. Never mind the steam bath. Sit down." They were rich and had everything: baidars, baidarkas and all kind of things. The father-in-law said: "There is a new baidarka standing on the beach. Here is the paddle and my hunting implements. You can take them and go out hunring."

When the young man came back the baidarka was loaded down so you could hardly see it, but the other hunters had no luck anymore. The big smoke house was full of all kinds of meat. Then the old woman said: "You better stop hunting and rest for a while."

The Man with Running Eyes.

(Paul Eliah).

There was a young man called Tanapishuaq. He took a lot of dried halibut meat to a village of Blackfish [Killerwhales?] to trade. He travelled in a one-hole baidarka. When he got there he went into the smoke house. The Blackfish said: "Too bad you did not bring dried meat of some kind!" Tanapishuaq answered: "If you give me a girl for a wife, I will give you what I have got." The Blackfish chief said: "If you give me some dried halibut, I will give you my daughter." Then Tanapishuaq went right out and brought all the halibut. "I know you like this dried halibut meat, so that is why I brought it over here." The chief said: "You can have my daughter for a wife." She was a pretty young girl. Tanapishuaq said: "I am going to take my wife home to show my family that I have got a wife. Then I will come right back with her."

He took his wife and placed her in the baidarka with her head sticking up between his legs. It was nice weather with clear sky when they left. The girl heard something dropping on the baidarka.

She wondered what could be happening, rain or what. "What is it, rain or what?" she asked. "Yes, it started to rain," her husband said. She did not believe him. She looked up and saw blue sky. White stuff was dropping from Tanapishuaq's eyes onto the deck. When she saw that, she began to cry and sang: "Tanapishuaq, take me off, take me o-o-o-off!" "Why are you crying? Why do you want to get off the baidarka?" he asked. "Oh, put me on the beach for a while, I want to do something." "I know where there is a nice white sandspit," he said, "that you will like. I will take you there." Then he said: "Here's a fine gravel beach. You could play with skin dolls here. Let us stay over night on this fine beach." The girl thought differently and she did not like him anymore, but she said: "All right." Then she thought: "My grandmother used to sing me to sleep."

At mid-day they went to bed right on the beach. The sun was shining. Tanapishuaq said: "Lay down on the sunny side." So she did, but then she remembered: "My grandmother used to tell me when I got married I should not lay on the sunny side." So she moved over to the other side. She put her hand on his head and stroke his hair. She hoped he would get sleepy. In a few minutes he fell asleep and began to snore hard, her thoughts were so strong. Then she rose from beside him. She saw a little bird light beside her and said to the bird: "I want to talk to you. Can you take me home?" "What are you going to do with your husband?" "I am going to leave him," she said, "I want to get home." Then the bird answered: "If you want to go home I will take you home. Get on my back!"

The bird took the girl on his back and flew away. They had to cross a wide bay to get to her mother's home. Before he got to the middle, he said: "I am getting tired." The girl said: "Look down and see if you see anything below us." The bird answered: "I don't see anything." So the girl tore a piece from her clothes and dropped it on the water. The bird was pretty tired. The girl said to him: "Go back where we came from." After they went back he saw a rock sticking up in the middle of the bay; it was the cloth she had dropped. He lit on the rock and the girl got off.

Then he said: "I am hungry." Little birds never go to low-water mark, they only eat maggots, and he did not know what to get on the rock. The girl said: "I am going to get you something to eat." She broke some barnacles off the rocks, cracked them and gave them to him. "Try these," she said. The bird liked them and he could not stop eating. Finally she said: "Let us start off now. The tide might cover this rock pretty soon." The bird said: "I feel heavy, I ate too much." "Can't you throw up?" she asked, "try to throw up." But he said: "I like them so well that I hate to throw up." The girl said again: "Go ahead and throw up!" And the bird answered: "I can't throw up." Then she said: "How are you going to fly away with me if you don't? You are too heavy. I will make you throw up." She spat on her hand and put it on the bird's back, and he threw up everything he had eaten and said: "You are saving us now. You made me throw up. Stay here and I will try to fly." He tried and circled around the rock and came back. "Climb on my back and hang on like you did before."

He flew up very high. Not far from the rock the girl raised up and saw a place that looked like her mother's village. They were getting close to it. The little bird said: "I am getting tired because I emptied my stomach." The girl said: "What is that in front of us, a log or a rock?" She was watching in front of her and thought it seemed like somebody paddling. When they got close she changed her clothes. Then she took her hand and wiped her face, saying: "I wish my face may change." She realized that it was Tanapishuaq going across to her home. She told the bird: "Light on that baidarka!" Tanapishuaq was paddling along, and the little bird dropped right down on the stern of the baidarka. The man looked back and asked: "Where did you come from here?" The girl answered: "I was following this bird. We were tired and so we lit right here." He asked: "Where do you think you are going?" "Oh, I am looking for my relatives. They went away a long time ago."

Then Tanapishuaq asked: "Did you ever see anybody that looked like my wife? I lost here while I was sleeping." She told him: "We flew in front of that fine beach over there and heard somebody crying. If you put us ashore you can go back where you lost her. You might find her there." He was wiping his eyes and dropping dirt from them once in a while. She said: "You better hurry and catch your wife before she gets off that place."

They left and went ashore. The bird said: "I should like to have something to eat like we had today." She fed him again. That is why small birds sometimes go to the beach and pick out the inside of barnacles. When they got close to home she changed her face again. Her mother asked: "What made you come back?" "Oh, I saw how he was. I did not like his eyes. They were too dirty. That is why I came home."

Pukituq who Turned into All Kinds of Animals.

(Makari).

Pukituq lived at Kangirhtluq in Wells Bay. He was a human and lived among people, but he could change into anything he wished. He said: "I am going to try myself." He went out and turned into a roasting spit, because it was used for all kinds of meat and he was always hungry. When he was a roasting spit he said he was full all the time. He got plenty of meat. When people roasted fish he had a good time, but every time they used the spit they scraped the burnt parts off, so he said they cut his body all up. Then he changed into a sea gull, because his skin was all cut up. He liked the looks of a sea gull, always neat and clean. He remained a sea gull a long time, but he was always hungry again. Soon he decided to turn into a seal, so he did.

Seals are supposed to eat only when the humpbacks and silver salmon run. He did not like that idea, so he turned into a cuttlefish after the salmon run was over. He was never hungry when a cuttlefish. He ate all the time when the tide was running in or out. He had all kinds of food stored away in his hole.

He tried to be everything. When he came out of his hole under the rocks he turned into a codfish. He stayed on the bottom of the sea in a rocky place, separate from the halibut. The cods had a fireplace on the bottom. Sometimes they saw a boat on top of the water. Whenever a man let a line down they took off the bait and buried it in the ashes. The man would raise his line and put on another bait. That meant his wife at home was touching the fireplace. When the codfish saw a bright light away up above they would tell the young ones that it was a human backside—they were the ones that would catch the cod. People used to catch him [them?].

He turned into other things. He was all kinds of salt-water fish, but he got tired of the salt water and changed into land animals. First he turned into a wolf. Then he was never hungry. He caught all kinds of animals to eat. Though he had a good time he turned into a brown bear. He used to go down to the streams and catch fish and put them up, and he got all kinds of berries when they were ripe. He was full all the time. He ate all summer, then towards winter he went into his house. He had nothing put up except in his stomach and slept the whole winter.

He tried every kind of sea and land animal, but he was getting old and thinking of going home. He turned into an amRUQ [lump-sucker?] and was caught, then he turned into a human. He was so old that he used a cane.

After a little while he went back to the seals again. The seals sleep a lot, that is why he turned back into one. Whenever a seal dives, it sleeps a half hour or an hour at a time. People hurry up in their baidarkas when a seal dives, and when they spit in the water, it wakes the seal up and it comes up right away. When he turned into a human he told the people not to spit in the water because it splashed on the bottom and woke the seals up. "Spit on your paddles instead!" When he turned into a human he forgot to take out his seal canine teeth, that is why some people have "high teeth" now.

When he got old and died they buried him on a small island in front of his village called Pukitumqungua [i. e. P.'s grave]. The village was still there after he died. Before he died he told the people not to make any noise when hunting. "If you do, all your hunting implements will sing." Therefore hunters are very quiet when hunting. Any animal can hear any noise. People learned from him how to hunt quietly.

The Blind Boy and the Loon.

(Makari).

There was a blind boy who went up to a lake and heard a loon calling. He asked the loon to come to him and cure his eyes. "I wish you would come and cure my eyes," he said, "I can hear you, but I cannot see you." The loon called again right close by where the boy stood. It said: "Crawl on my back, hold me tight and don't let go. I am going to dive with you." The loon went down and swam around the lake five times before he came up. When he came up, the boy could see everything around. Then the boy said: "Wait for me here till I come back," so he could give him something as a remembrance. The boy returned from his house. He brought an apron made of white *Dentalium* shells. The boy gave it to the loon, "so you can remember me." The loon said: "Wait for me till I come up." Then he dived and when he came up in front of the boy he had the apron on. That is the reason why loons have white breasts.

The Girl Who Married a Dog.
(Stepan).

Once there was a girl, and many men came to her and tried to marry her, but she would not marry them. She had five brothers and a father and a mother, and her father was the chief of the place. The girl had a dog. They heard that she started to talk when she was alone with the dog. She stayed single and got a child without a man. The child was different from us and had a tail. Her brothers and parents were ashamed, because they knew that the dog was its father, and all of them left the village without leaving anything for the girl, neither food nor house nor anything. They burned the smoke house and never returned.

The girl felt sorry about it and cried. Then the dog turned into a man and told her not to cry and said that he wanted her to be his wife. "Go up and look for a place where we can live and take care of the child," he told her, "get the house ready before evening and a fire in it." When the house was finished he asked her: "Are you hungry?" And his wife answered: "Yes, I am hungry." He said that he would go and look for food for her and be back immediately and asked her: "What kind of game do you like?" She told him: "It is too far for you to go, but I should like to get a mountain goat." He answered he would try to get it, because he liked his wife and would try to get anything for her. Then he put on his dogskin and turned into a dog again and ran out of the house.

Soon after she heard a dog barking from the mountains, and afterwards it stopped. The dog came down carrying some goat meat. He and the woman got along fine and had everything to eat. After a year one of her brothers went and saw her. He said that they had not been able to get any game after they had left, because they no longer had the dog they used to hunt with, and he told her to ask her husband to come to their place. The dog did not tell his brother-in-law to leave, but said to him: "If they want to come back, tell them to do so. I will take care of your mother and father as best I can if they stay here."

All of them returned. After a year there were many people there, they all came back. Then they began to fight. The dog told them not to do so, then there would be more people. They all got angry at the dog, but he told them not to try to get after him again. "You left this place," he said, "and after you could not manage yourself you came back to me again. Now if you try to get after me, you better leave. If you don't listen to me, it will not take me long to get through with all of you." Then the people left the place again, and nothing more was heard of them.

How the Dog Came to Men.
(Makari).

Originally, the dog was wild and lived among the wild animals, but he was always giggling and thus betrayed the hiding places of the animals. Therefore they sewed the dog's mouth together, but he giggled so much that the seam was torn. That is why the dog has such a big mouth. The animals chased the dog away, but the dog said: "Now you chase me away, but I am going to avenge myself and trace you when the people are hunting you."

The Man Who Married a Bear.
(Stepan).

One winter some people from Nunaqtyuq went out looking for bear dens. They found one with a bear in it. The bear seized one of the men named Mayuruluq and pulled him into the den. It was a she-bear. She did not want to bite the man because she had no husband, and kept him in her den the whole winter. She cooked for her husband, holding her paws over the fire and squeezing the fat into his plate. During the winter they had three little cubs.

In the spring the man said to the bear: "There is a lot of snow outside. We will have to make boots for the children, or they will get cold feet." Then he left his wife and the children in the den, saying: "I will let you know when the weather is warm and you and the children can come out." After he left he went down to the beach at low water and found a kind of sea slug. He fed it to the children and put boots on them and took them out. The snow had gone.

During the summer the cubs grew big. Then the fish came. The man, who had now turned into

a bear, knew a creek where a great many fish came and took his family there. They got plenty of humpback salmon, they fed up on them. The young ones were big enough to feed themselves.

People used to go around the creeks looking for the first bears to come down. They saw the bear family. When the bear-man saw the people coming he pushed his bear snout down and turned back into a human. He went down to them and said: "Don't kill those little ones. You can kill either of us." But the hunter did not feel like killing any of them. He left them and went home to Nunaqtyuq. There he told the people: "We saw the man we lost last winter. He has three little ones up there and told us not to kill them." The people felt bad. All summer they did not hunt bears in that region, they were afraid they might strike the little ones.

Next fall they went hunting again. They saw the man, but he could not pull his face off anymore, he had turned into a real bear. They also noticed the little ones who were quite big now, but they did not kill them. Afterwards they did not hunt at all around there.

The men from Nunaqtyuq were hunting bears down on Hawkins Island. There they saw a bear near Canoe Pass together with three little ones. The hunter killed all of them, both the mother and the three cubs. When he got back he told the people that he had killed a bear and three cubs. The people said: "Now you have killed our man's wife and his three children." Then they did not hunt near Canoe Pass anymore.

The bear-man had a mother and father at Nunaqtyuq. That winter the people had a great feast in honour of the man's wife and three children. They brought all the bear heads home, not just skinned, and set them up at the head of the smoke house, dressed in beads and expensive furs, and danced. They never found the father, he had moved away.

(That is how people found out that bears sleep in their dens all winter).

The Woman Who Married a Bear[1].

(Stepan).

There were five brothers and a sister in a village somewhere. The sister married a man from the vicinity of Chenega. The brothers and the sister and her husband used to play with snow balls, and they could tell each other by the finger marks on them. One would turn his back, and the others would all make snow balls and mix them up; any of them could tell each other by the finger marks.

It was in the fall and there were many bears around. The women of the village went up in the mountains with their spruce-root baskets to pick berries, and when they had filled their baskets they started home. On the way back the sister slipped in some brown-bear dung and spilled her berries. She called the bear all kind of names: "Why did that bear come here? He has big feet and a big face and big hands."

She walked further and slipped in some more bear dung and called the bear names again. She did the same a third time. The other women were waiting for her. Each time she picked up all her berries again, but the third time she told them to send her husband after her.

Soon after they had left, her husband arrived and said: "All right, give me that basket, I will carry it home for you." She went with him. They walked a long way, but they did not get home. Then the man took the basket from his back and said: "Now, you asked why the bear defecated all over." Then he showed her his hands and said: "Where are my big hands? Where is my big nose? Where is my big face?" Her husband was the bear, but now he had turned into a man.

They found a clearing in the woods, and he said: "Look and see if you can see any brown smoke on the mountain." She saw some, and he said: "That is where we are going to live."

They went there, and she entered the house, a big house. She did not know that she had turned into a bear herself. She saw all kinds of food in there, fish and berries, everything the brown bears eat.

In the fall, at the time when the bears hole up, they went to bed, the husband in one place and his wife in another. In the middle of the winter he turned over on his other side. In the spring he got up. He said nothing to his wife, but went out. His wife had five cubs during the winter. The father and mother looked like humans, but the young ones looked like bears. The man came back and said to his wife: "Now your brothers are going to get me. Please take good care of our children. Do not let them [your brothers] hit my face, but tell them to hit me in the side. To-morrow morning

[1] Cf. Birket-Smith & de Laguna 1938, 276 ff.

your brothers will be here. I would kill them but they are your brothers, therefore I cannot kill them. I will let your brothers kill me."

Next morning he said: "Yesterday I told you, and you did not believe me. Now look down and see!" She looked down and saw her brothers. Then she made five snow balls and threw them down. The brothers picked them up and looked at them. They knew immediately that their sister had made them. When they got up to the house, she told them not to hit her husband in the face. "He will get mad if you hit his face." They killed him, but they did not hit his face.

They took their sister and all her children down, but before they got home she told them: "I do not want to take my children down to the village. I want to leave them in a safe place. People might kill them if I take them along."

She told the oldest child to go to his [paternal] grandfather. He went to his grandfather singing, but his grandfather said he could not understand him. The next one she told to go to his father's brother. The third one she told to go to his father's sister's son. The fourth she told to go to his father's sister. The fifth she told to go to his father's oldest brother.

Then they all went home. When they got near to the village she looked up and saw five brown smokes in the mountains. She asked her brothers: "Do you see anything in the mountains?" "No," they answered, "we do not see anything." Then she said: "Now I will show you something. You have always stayed around here hunting. Do you see anything? There are five different smokes in the mountains."

They returned home. It was in the fall, and she went berry-picking again. She was always thinking of her children. While berry-picking she saw the five smokes. They were all glad to meet again. Then she left her children and went back. That fall she heard dogs barking at her children in the mountains and felt sorry for them. She cried [because they were killed?].

After a while all the people in the village died, and that is the end.

Why the Brown Bears are Hostile towards Men[1].

(Makari).

There was a man and his wife living at Nunaq [a little below Alice Cove between Sheep Bay and Simpson Bay]. He liked to hunt and used to stay away for days and days. His name was Aktyingkuq. Then he fell sick after he returned from hunting and told his wife: "When I die, put my baidarka and all my hunting implements on top of my grave." So when he died his wife buried him and placed all his things on top. She used to come every day and look at the grave, but one day when she came, everything was gone and the grave was open. Then she used to go down to the grave and cry.

One day she heard a little bird over her head singing:

ci·k ci·k,	Tyik tyik,
akcɨŋkuq qilaɣam maŋiᵈli·nɨ	Aktyingkuq behind the Qilagat mountain
qalukcaktuq,	is sleeping hard,
tutikcaktuq	is sleeping with a woman,
ci·k ci·k.	tyik tyik.

The old woman said: "If you are telling the truth, I wish you would fly towards where my husband is." So the little bird flew towards Nuchek. The woman got ready and started to walk after the bird. When she got to the narrows, she took a rotten drift tree, made a canoe out of it and crossed to Nuchek. She walked over the mountains and went towards the village. When she got to Qilagat she looked down into the bay [Constantine Harbor] from the top and saw her husband's baidarka among all kinds of game that he was hunting. Then she went down to the sandspit and saw the bark smoke houses and two women in there.

Aktyingkuq's wife said to them: "I am hungry for some tyaratlqat [a kind of eatable seaweed]. I wish you would heat some water for it to cook in." After that she said to the women: "Come on both of you. That is the way we eat." The whole basketful of seaweed was boiling. She was jealous of them. They all stooped down to eat. She was sitting on one side of the basket and the two women on the other side. She took them by their necks and put their faces into the water and killed them

[1] Cf. Golder 1909, 10 f. Lavrischeff 1928, 121 f. Lantis 1938 a, 162 ff. Rasmussen 1952, 185 ff.

that way, saying as she did so: "I wish that one of them will come up with a smiling face when she is dead, and the other one looking sad." Then she took both women out of the smoke house. She made two spits to roast meat on and poked them through their stomachs and set them on the path with the smiling one in front and the sour-faced one behind. Then she hid behind a stump.

Aktyingkuq came ashore and thought he saw the two women coming down to meet him. He did not know his wife was there. She had a sewing bag made of a brown bear's snout. She soaked it and made it soft while she was hiding. Then she put it on over her nose and said: "I will fix that fellow." Aktyingkuq said to the two women: "Do not worry. I have got you a white sea otter. You can butcher it. I have got a black one for the other." He thought the two women had been fighting. Then his own wife turned into a bear. "I will fix you. You fooled me and pretended to die, but you had two wives here." "No, no!" he said, "I was going home to-morrow." But the old woman started to chew up his baidarka, beginning with the bow, and afterwards she chewed up her husband and killed him.

The sun was shining. She took her hair down and spread it out, turning her back to the sun. Then she heard a voice: "We are coming, looking for you." It was two baidarkas with four men. They took her far out to sea, she did not know where. There the four men said: "Jump overboard from the baidarka. We are going to do the same thing." The four men were really fur seals. Then she put her nose on again and turned into a bear. The four fur seals left her after they had all jumped into the water.

The old woman was swimming, and when she looked up she saw land ahead of her. It was Shukluq [Montague Island]. She was still swimming, but she got very tired. Then she met some seaweed floating on the water. She kicked at it and spat on it, saying: "I wish that you may turn into land." It became Qutyuaq [Middleton Island]. There she rested and went on to Montague. That is why the brown bears on Montague are so wild.

The Man and the Sea Lions[1].

(Makari).

There was a village near Chenega named Tyaigyulik [*i. e.* Silver Salmon Place] where people went hunting for sea lions. A great many baidarkas went out, and they speared a sea lion, but it escaped with the harpoon head. There was a rock at some distance from the hunting grounds where they left a man while they went looking for the sea lion, because the sea was so rough that they could not get at him. It was so cold that he became sleepy and had been sleeping for a few minutes when somebody cried: "Come on, you!" He woke up, but there was nobody around. While he was sitting there he heard the voice again, saying: "Come on, you are cold." He was peeping under his eyelids to find out who it was and saw a sea lion touching him, crying to him, but diving again. Then the man dived after it under the rock, and the sea lion opened a door to its house, which was full of sea lions. When the man entered he saw a little old woman who came to him and asked: "How did you come here? Are you dead or alive?" "No," he answered, "I was left on the rock and dived and found this place." The old woman said: "Live men have never come here, only drowned people come to this house."

Then the man saw a great sea lion lying at the fire with his partners' harpoon in its side. It was nearly dead, but the other sea lions did not know what was the matter with him. (The other hunters came to look after the man but did not find him on the rock and thought he was drowned.) The old woman said: "Can you do anything for this man lying at the fire? He is our chief." They did not see the harpoon head. The man said he would bathe the wound with hot water, but he did not tell what was wrong. The old woman asked what the matter was, but he only said that he would cure him. He bathed the wound and removed the harpoon head and hid it without the others noticing it, and then he said: "I have cured him now." And the old woman said: "I am going to pay you well," showing him a great stomach hanging under the roof—it was the sea lion's baidarka—and told him to ask for that.

The sick sea lion chief got up next day and was very hungry and said: "Anything you ask for you can have." The man pointed at the stomach and asked for it. The sea lion said: "We will give it to you so you can go back to your own people." He took the stomach down, opened it and let

[1] Cf. Birket-Smith & de Laguna 1938, 283 ff.

the man into it and said: "Now you are going home, but do not try to peep out of the hole until you feel that you are on the beach." The old woman said: "When you have drifted on to the beach, open it from the inside and afterwards tie it again and throw it into the sea. It is going back to us again."

He heard people talking while he drifted away, right to his own village. Some children were trying to bust it throwing stones at it. He got out and told them not to do so, it was the boat they had let him go away with. It was right at their winter village. After he got out he went up to his parents' house. His mother had not a hair left on her head, nor had his father. In olden days they used to singe their hair when they lost a child. He said to his mother: "Do not cry anymore. I have come back. But call all the people to a meeting. I want to speak to them. I found a spear they have lost, but I do not know to whom it belongs."

They had a meeting in the village, and the man took the harpoon head saying: "Tell me who owns this harpoon head. I found it in the wounded sea lion, but I do not know to whom it belongs."

Afterwards they lived as before. There was a glacier near the village. It moved back, and they saw the small islands called Kalugat. The chief went to look for a site for a new village there. Next day he returned, and at a meeting he told the people he had found a new place where they could live. It was Ingim-atya [Chenega]. After they had moved there, a two-man baidarka went out hunting sea lions again. One man was left on a rock so he could spear the sea lions; his name was Nayarngaun. His partner, whose name was Tanyurhangtyuk, returned to the village. When he came back they asked him where his partner was, and he answered: "The surf washed him away and drowned him." This happened in the fall. They believed what he said. The man left on the rock was married to a porcupine, and he himself was a black bear. He was full of hair all over his body.

In the fall the following year three baidarkas went out hunting sea lions at the same rock and there they found the man, who had made a house of cormorants' wings. The hunters brought him home without killing any sea lions. They informed him that his wife was now married to the man who had left him, and he told them to wait until dark before they took him ashore. After they had returned and anybody could see them, he asked them to be silent. He used to enter the house where his parents were living feet first. His father said: "Those legs look like our son's legs, he used to go in feet first." Next day he told his parents: "Let us have a feast, and call Tanyurhangtyuk and his wife so that they can see me." When they arrived to the feast he said to them: "That's what you were after! You left me on the rock so you could take my wife. You can keep her now." Then he began to cry like the cormorants: "Rorr-rorr-rorr!" and Tanyurhangtyuk fell dead. After that he took his wife back and they lived as they had done before.

The Man Who Turned into a Ground-Squirrel[1].
(Makari).

There was a village on Knight Island called Ulukaq [*i. e.* looking like a tongue]. It was in the fall and people were going to hunt ground-squirrels. They were getting their dead-falls ready. They climbed in the mountains, and every day they went to look at the dead-falls they had set there. There was a man called Mayuruluq who got more ground-squirrels than anybody else. He trapped the "king" of the ground-squirrels. It was pure white, and people very selsom get one. He was carrying a heavy load and was tired, so the rest left him behind. He sat down to rest for a long time. He put his pack on the ground and rested, then he started off again. He was so tired that he slipped going down from the mountains, his line broke, and he lost his pack. Everyone of the ground-squirrels turned to life again and ran to their holes. He chased the white one, whereas he did not mind the others.

He got back to the place where he had caught it. There was a hole where the ground-squirrel entered, the man followed it, and inside he saw a smoke house full of people. There the ground-squirrel took off its skin and turned into a man. He said to his wife: "Cook something for this man before he goes." The man got afraid and said that he was not hungry. "I am just ready to go," he said. But the ground-squirrel insisted: "You better eat something before you leave." They gave him all sorts of berries and roots but no meat. Then the man said: "It is getting late and dark. I must go back where I came from." But the people said: "You can have beddings here. Stay here over night. You can leave early in the morning." Then they all went to bed.

[1] Cf. Birket-Smith & de Laguna 1938, 273 ff.

It was daylight in the morning, when he got out of the smoke house early. There was deep snow outside. He walked a short way and found a big rock without snow. There he sat down and saw a baidarka coming with two men. He shouted at them: "Huiii . . ., baidarka coming!" He shouted again. The two men in the baidarka said: "It is strange. The ground-squirrels must be out." It was in the spring. "That one must be pretty big, he cried so loud." The man heard them and looked at his hands. He looked at himself all over. He had fur all over. Then he sang:

ajänäha·	.....
ajänäha·	.....
tauaha	.....
nunähä	.....
ajänäha·	.....
nunähä	.....
aixaŋka-ukut	These my hands
quiRERLutiŋ-qa	turned into a ground-squirrel
tauaha	.....
ajänäha·	.....
naruaq-una	that gull [referring to the white colour of the squirrel]
maliLugo.	while I was chasing it.

He thought he had stayed over night in the smoke house, but he had been there all winter. It was spring. When he saw that he had fur, he ran back to the smoke house, crying: "qɪ·n, qɪn, qɪn, qɪn." Then he turned into a real ground-squirrel. He stayed there all summer, helping to put up grass and roots for the winter. Towards the fall they went back to their hole, and he never returned.

The Squirrel, the Swell, the Wolverine and the Lynx.
(Paul Eliah).

There was a small woman. She lit on the high-water mark anywhere on the beach, just like a mosquito. She stood there on the sea-weed thinking: "What am I going to do all by myself? Where can I go?" She came to a rock and got up on top. She saw that the water was running out and said: "I wish I could sleep under this rock. If you like me, let me sleep under this rock." She said this to the high-water mark. She slept there, and woke up when somebody shook her. It was a young man who said: "Come with me!" "I am hungry," she said. "I have got lunch with me. You can have some." He clapped his hands and opened them, and they were filled with mussels, all opened up. "Oh, they look nice," she said.

After she had eaten, she said: "Where do we go from here?" "Take my right hand," he answered, "I will bring you to my home." "Where are you taking me?" she asked. He took her down to high-water mark. The surf was rolling in, getting higher and higher. He said: "We are going in here." "How do we get under there without getting wet?" They went right through [the surf], and underneath there were plenty of blueberry and salmonberry bushes, all fresh and dry. "Is this your home?" she asked. "Yes," he said, "I am going to stay here." He asked if she had parents left behind. She answered: "Yes, but I don't care about going to see them." "Well, some time you will think about them."

Then it began to blow, and the girl became frightened. "Is this the way your home is?" "No," he said, "come with me." "How do we get through?" He was the Owner of the Swells. She was the Owner of the Leaves [later said to be the Owner of the (a) Squirrel(s), which seems more suitable]. The young man said: "Wait for me here, then I will come back." He left her and disappeared among the swells. She sat there, crying. An eagle came down and said: "What are you crying for?" "I am crying for my husband. He went through the swells. I cannot see him." "Do you want to see him?" "Yes." The eagle lit right alongside her and said: "Climb on my back and hang onto my neck. I will take you where your husband is." He flew over the breakers and slowed down. "Look down, and you will see your husband." She looked down and saw her husband picking his way through the rocks and kelp. "Do you want to go to your husband?" "No." "Which place do you like best?" asked the eagle. "I used to like to live among the leaves." "Find me something to eat," he said, "and I will take you where you came from." "I will do my best," she said.

He flew with her to a beautiful place where the flowers smelled good, and there he lit slowly and let the girl go. "What do you want?" she asked. "What I asked you for a while ago." "I will try to get something for you," she said. Then she thought: "I wish my father would come like he used to and bring me anything I want." She came to a bluff, and someone called: "Daughter." "Why do you call me?" she asked. He said: "I know what the eagle wants before you can tell me." "Can you bring me that, father?" "Yes," he said, "I can do that right away. Wait here until I come with it." He brought a dead man. "Here it is! Give this to the eagle." She felt the corpse and took out a long knife. Then she began to cry, put the knife [back] in her clothes and went away. It got dark, and she could not see anything. She went under a tree in the dark. "I am going to rest here in this fine place." She took out her knife again, and it was so bright it lit up the whole place. She could see all around. There were animals of all kinds, and when they looked at the light they all became drowsy and fell asleep. She was not afraid and took the light, put it under her head and fell asleep.

Then somebody shook her. "Wake up in a hurry." She looked up, and a young man was standing there. She asked where he came from. "I heard you were here and came to look for you." She saw that she was on top of a mountain with no way to get down. "How can I get away? I would sooner be dead than be left here." The young man said: "I came to get you down. You can come with me." The place became so foggy that they could see nothing at all, but then the fog disappeared and everything was nice and green, and they were at the sandspit. Then the young man said: "How are we going to be here?" Everything was green, just coming up. "This is my home," said the girl. "I do not know this place," he said, "I cannot live here. If you follow me you will be all right."

As they were sitting there it began to snow so thick that they were both nearly covered. "Is that the way your home is, nothing but snow?" she asked. "Yes, people could see where we walk then." He was the [an] Owner of the Wolverine[s]. She was the [an] Owner of the small Squirrel[s] who hole up in winter. "My feet are getting cold," she said. They were walking on top of the snow. "Let us go down to low-water mark," he said, "that is the only time my feet get warm, on the seaweed."

He took her on his back, her feet were so cold. They stopped by a river where they met a young man coming across. Wolverine was hungry. The girl said: "So am I. I have not eaten for a long time." They met the man at a bluff. Wolverine asked: "Have you got anything to eat?" "Yes, I found something on the beach." He was the Owner of the [a] Lynx. He had found a cache and told Wolverine where it was. Lynx said: "I have found something over there and I will take you to it." They saw logs piled up and covered with brush; it was a dead-fall. Lynx said: "Go in there and get something for us." But Wolverine answered: "No, you go in." Lynx said: "If I go in, that pole will fall on me."

The girl on his back said to Wolverine: "You took me and said you liked me. Is that the way you act when I am hungry?" She got off his back and sat beside Lynx. Wolverine went and told the girl: "Watch that pole and shout as soon as it falls." He went in and the pole fell across his back. The Lynx said to Squirrel: "Come with me and I will get a duck for you on the beach." Wolverine was shouting for them to pull the pole off, but they walked away and left him.

Lynx said: "Wait for me here by this rock!" A duck flew past and Lynx reached up and seized it and gave it to Squirrel. "Is that the kind of food you eat?" she asked. "Yes, I catch them any time, even when they fly." Said Squirrel: "All right, I will stay with you all the time."

The Beavers.

(Makari).

There was a large village called Aikhartalik [on Mummy Island near the Haltness Cannery]. Many people lived there. Two men came in canoes, and after that it started to blow and rain. A waterfall began behind the village and ran down among the smoke houses. The two men sang:

ulaliŋajʟja	Waterfall (not grammatically correct, supposed to be beaver language),
ulʋta·kut	flooded us,
imaŋʋta·kut	is leaking (like a boat) for us,
ulaliŋajʟjʟ	waterfall,
jahahe·	.....
jahahe·	.....

They were beavers in human shape. The villagers all ran away, but the beavers stayed, singing again. The people built a new village, but the beavers did not mind the water. The river had flooded.

The Thievish Mouse.

(Makari).

Some people had a meat cache in their smoke house. They wondered what made a noise all the time in their locker, wondered what was rooting there. They found a little mouse and were going to singe it alive, but the mouse said: "Please don't singe me. I will sing a song for you." Then he sang [song forgotten]. The people did not singe him, but told him not to steal their food anymore and turned him loose. But he still used to sneak in and steal food.

The Land Otter.

(Makari).

The Spirit of the Sea and the Spirit of the Land divided the animals between them, but the land otter was left. At that time the otter had a very short tail. The two spirits quarreled, and in the tugging the otter's tail was stretched. Then it cried out: "Please let me go! I will stay with both of you." That is why it spends half of its time on land and half of it in the water.

The Eagle-Man.

(Stepan).

Shili was the chief of a village. He had two wives and a nephew named Kumariaq, who was an eagle. The nephew had a grandmother, a very old woman. Shili had all kinds of meat. The grandmother came to him to get some food, but Shili said: "Why do you come here?" And he kicked her out of the house. She went home crying. The grandson asked: "Why are you crying, grandmother? Why did you go over to Shili's house? Don't cry, I will get something for you." Then he told her to go early in the morning to the beach and cut up any animal she found there with her woman's knife. He put on his eagle skin, and before dawn he was gone.

She went down at daybreak and saw a whale on the beach. She cut two slashes crosswise on each side. Then Kumariaq returned to his grandmother and said: "Did you see the game I got for you? Give Shili enough of it to eat. Yesterday my uncle had all kinds of food, and he would not give you anything."

Shili shouted to all the villagers: "I have got a whale down on the beach." He seized the grandmother by the arm and chased her away. She went right back to the whale, but he took her by the arm and chased her away again. Kumariaq saw that tears were falling from her eyes, she was crying. It went right to his heart, and he said: "I will get even with my uncle. I don't care about myself, but I care about my grandmother. My uncle split my heart."

There was an old man in the village who saw the crosses on the whale and told the people to leave it alone. He saw the eagle [Kumariaq] sitting in a tree. But Shili told the people not to listen to him. "I am the master here, I am the chief. What is that eagle up there? What is he saying about me?"

The eagle shouted: "Shili, I will get even with you now. Stand on your two wives' ribs." The two wives stood up on each side. Kumariaq flew down from the tree and nearly seized Shili. He flew back to the same tree and told the wives to watch their husband and said: "You made me cry a long time." Kumariaq flew to Shili and seized him by the head and carried him away. When he was out of sight of land he dropped his uncle into the sea. Then he went back to the village and took both his uncle's wives for himself and became chief of the place. He took two whalebones and carved them like two men. When he went hunting he would leave them for his wives.

Long afterwards his grandmother died. Kumariaq died the same year. The two bones he had cut from the whale became the husbands of his wives.

(There was some more to this story, but Stepan had forgotten it. His grandmother told it to him when he was about eight years old).

The Old Woman and the Crows.
(Makari).

There was a small village called Qirhtliaq [in Anderson Bay]. Not many people were living there. A little old woman was putting up fish. A bunch of children came in and yelled: "Maqotutlngiaq, there is a lot of crows eating your fish!" She seized her own bow and arrows and stood up and sang:

augʌrcɪ	Get away,
pitixcɛram	I am going to shoot you
naŋilu·cɪ	all of you,
a·ʃʌrcɪqamcɪ	I will kill you,
augʌrcɪ	get away
naŋilu·cɪ.	all of you.

She was shooting with the arrows, but missed them. They were flying in all directions. She took her fish in the smoke house and always hung her fish inside afterwards.

The Scoter's Guts.
(Makari).

There was a black scoter[?]. A land otter went to the sea looking for food. There he saw five scoters sitting on the water, and dived. He came up under them and seized one of them and swam ashore. When he got to his hole he took the scoter in and ate it, but he did not touch the guts. The other scoters missed their partner. They were aware that something had taken him and started to sing:

cajaha·, cajaha·	.....
ɪŋim-pikʊm	Under that mountain
manuanɪ	right here
qilʊʀLuaŋka pakma	my guts up there.
ɪŋim-pikʊm	Under that mountain
manuanɪ.	right here.

The four scoters went after the guts, took them and turned them into a scoter again. They never went back to the same place anymore.

The Brown Snipe and the Weather Which Changed Most Opportunely.
(Makari).

A brown snipe was sitting on a rock, when a storm came up, raining and blowing. The snipe had laid eggs on the rocks. Her eggs got wet from the storm, even on the bottom. She thought that she had better sing to bring good weather. She was sorry about her eggs. She sang:

awinaja·-hä	The blue sky,
awinaja·-hä	the blue sky,
awinaja·-hä	the blue sky,
awinaja·-hä	the blue sky.
qɪ·n, qɪn, qɪn, qɪn.	..... (falsetto).

Next morning the sun came out, and the sky was blue. She felt happy. She turned the eggs on their sides and lay there sunning herself. She was sitting on the eggs, and a little snipe hatched before it started to storm again. So she did not care about the storm anymore.

The Frog.

(Makari).

There was a village called Qathukhtuli near Boswell Bay [Hinchinbrook Island]. One man there differed from the others. His name was Shurunik. He rose early every morning and used to walk over the people when he got up. One morning he stepped on somebody's right arm. The man began to sing and woke everybody up. Shurunik went out. The man sang:

ʃʊrʊ·nɪm-awgu·m	That Shurunik
amʟiakɪ·ŋa	stepped over me,
ija·ŋa ʃʊrʊ·nɪk	that Shurunik,
ija·ŋa ʃʊrʊ·nɪk.	that Shurunik.

Later Shurunik came back to the house and heard everyone singing:

ʃʊrʊ·nɪm-awgu·m	That Shurunik
amʟiaka·gʊt	stepped over us,
ija·ŋa ʃʊrʊ·nɪk	that Shurunik,
ija·ŋa ʃʊrʊ·nɪk.	that Shurunik.

Then he became angry. He was really a frog. He could not help stepping on the man, because frogs always hop along the ground. He got so angry that he sucked the cheek of the man who made the song, and pulled his mouth around to the side of his face. The people were going to abuse Shurunik, because he moved the man's mouth, but when Shurunik heard the people plotting in the smoke house, he hopped around each one and then walked out. He went up to a lake back of the beach. The people followed to beat him up, but he dived and did not come up. They expected him to return and were always on the lookout, for they were going to kill him, if he ever came back.

He was aware of their intentions and went back to the village. When he entered the smoke house he said: "You said you were going to kill me. Now kill me!" Then he started to suck, and sucked up the smoke house and the people and all, and went up to the lake and dived down with all of them. The whole village disappeared.

The Bullhead's Story.

(Makari).

There was a village called Nunaram-waqtlia ["below Nunaq," in Alice Cove, between Simpson Bay and Sheep Bay]. People were sitting there in the smoke house for a long time in the evening, when the door opened alone, and they saw a man coming in with a big head and a big stomach. They let him enter and told him to sit down and gave him something to eat. When he had finished eating they asked him to tell stories. "We should like to hear stories of your people." "I have not got a grandfather, so I have no stories to tell," he said. They insisted, but every time he would say: "I have got no grandfather, that is why I cannot tell stories." Finally he got tired of them and said: "All right, I will tell you a story." He was a bullhead. He sang:

aha-ha-ha-ha	.....
cɪqʟɪq aŋa·je.	.....

He thought that he was telling a story. As he was singing, all the people died one after another. Then he left for the sea.

Skunk-Cabbage and Water-Lily.

(Makari).

There was a village below Nunaqtyuk called Nanuaranarait. In the summer a great many children came over there. They were skunk cabbages and water lilies. They were friendly to each other, and every summer many children were coming. When they grew up and were old enough they said to each other: "I suppose it would be better if we married." So they intermarried.

The people of Nanuaranarait were all kinds of bushes. Skunk Cabbage was a man, Water Lily a woman. Skunk Cabbage died, but Water Lily lived until the ice came. The roots of Skunk Cabbage and Water Lily were their parents. Water Lily's father and mother said: "We donot like that your husband dies right away." He did not really die, his roots were still alive, but they did not like the idea. They told Water Lily to leave her husband. When winter comes, Skunk Cabbage dies entirely, but Water Lily lives on. Her roots are far down. But Skunk Cabbage always dies, even in the swamps.

The Owner of the Alders.

(Paul Eliah).

There was a girl who liked to eat liver. She was the Owner of the Alders [or of a small bird?] and liked to sit up in the trees and blow around. There was a young man who liked to lie in the surf and let the waves break over him and roll him around. The girl said: "What if a rotten codfish drifts on you? Better come up here!" "No," he said, "these swells make me sleepy. You come down here!" "I suppose you will turn me loose, and I cannot swim. You come up here!" "Can you fly?" "No, but I just like to swing around." "Will you come down if you like me?" "Yes," said the girl.

The alder bent over, and the boy seized her and swung her down among the kelp. "How can we live here?" she asked. "Oh," he answered, "I have a house somewhere." "What can we eat?" He put her hands on his heart, and it was so warm that she got drowsy and fell asleep.

When the girl woke up, the sun was hot and the tide was coming in. She felt hungry. So she shook the young man, and finally he woke up. "What are we going to do?" she asked, "I am hungry." He said: "Let us go ashore. What do you want?" "I like codfish liver." "I like you because you came to me. I will do my best to get it for you." "We must have a fire," said the girl. The man spat on his hands, clapped them and spread them apart, and a fire sprang up. The girl said: "What are we going to eat?" "Look down here!" Fresh codfish were lying all around the fire. She was very happy and said: "Oh, I like you. Anything I want you can get." "I like you too, but I cannot take you where I am living amongst the rocks." Said the girl: "My parents told me that later I would be eating roots from under the rocks." "Can I have you for my wife?" "I like you too myself. Let us go up in the alders where I am living. If we like it, we could stay there, and if not we could go back to your place."

The girl climbed on the alders with the young man behind her. She got to the very top, but he stopped at the middle. The stem was bending. The man said: "I like you, but I am too heavy. I cannot get up there. You are so light." Then the girl said: I know where you want to go, and I do not like your home, but I like you and I will go with you anywhere. If there is something wrong with you, I will be the same." "I will not force you to go, but I will take your hand and take you with me, and if you don't like it, I cannot help it."

They descended from the alders, and when they came down a little bird was chirping: "Tyik, tyik, tyik." She thought: "It sounds like a long time ago when I was in the alders." She grasped the branches as they walked. "What makes you so heavy?" asked the man. "Oh, those branches are holding me." The man watched her and saw her grasping the alders. "Why do you grasp those branches?" "Oh, my arm always goes back on me," she answered.

They walked and came to a large lake where they stopped. The man said: "That is my house. If you like me, stay with me." The girl answered: "Let us sit down for a while. I like to look at the water." "No, let us go down. I do not like to look at my home from the top all the time." Said she: "If you like me, leave me here, otherwise I will go back."

They were sitting on the shore. Then a head appeared from the water like a giant octopus. The arms were crawling all over the alders. "What is that?" asked the girl. "Oh, that is one of my mother's pets." Then the girl began to cry. "I made a mistake. I want to go back." But he said: "Step on my left foot and take my left hand at the same time." She stepped on his left foot and grasped his left hand without looking at it first, but then she saw that it[?] was a long dagger with shiny skin. "Oh," she cried, "that is what you do to me when you like me!" "Yes," he said, "soon you will be food for that creature you saw coming up." The girl said: "You brought me here to feed that animal, but now I will take that dagger in my right hand and give it back to you [*i. e.* stab you]." She changed to the right hand and said: "Now we will go back where you found me." "I made a mistake," he said, "I have to go back to the lake." She was holding the dagger in her right hand and watched

him dive into the lake. "I like you. How am I to get you back?" she asked. She threw the dagger after him, and the lake started to boil as if blood was coming out of it. All the octopus's suckers floated up.

The girl became afraid and ran away from the lake. She did not know if it was daylight or dark, or where she was going. She was walking in the dark, when something hit her forehead. Then she saw a young man standing beside her. "I like you," he said, but she answered: "I will not go back until you fix that lake up." She believed it was the same man, but it was not. He was the Owner of all the bushes that grow on the land. He said: "If you like me, I can fix that lake up so you can live in it. Come with me! Watch me and I will fix it up so you and I can live in it." He carried her on his shoulders back to the lake.

She said: "I don't want you to do like that first man who took me for a wife—try to feed me to that animal." "No, I will not do you any harm. I did not take you for that."

They arrived at the lake. There was a big tree leaning over the water. He took the girl up to the top and set her down. "Sit here and wait for me." She was crying. "I want you," he said, "sit here and wait for me." Then he dived into the lake.

She could see him swimming and thought: "Now he will do like the first one did." The lake turned white like ice. It came all over the lake and right under the tree. She climbed down; she wanted to know if it was ice. Then she heard a voice calling her by bame. "Stay right where you are and wait for your husband. Don't move!" The lake was frozen. She stayed where she was and looked up to the end of the lake. It was long. Then she saw a small figure near the middle, carrying something towards her. It was the young man.

"I told you that I would not treat you like the other one." She knew him and went up to him and asked: "What is this?" He put his bundle down and answered: "Your first husband, the one who tried to feed you to the octopus. I found him in the stomach of the octopus."

The girl liked him then and said she would go anywhere he went.

How Raven brought the Daylight.

(Makari).

There was a village at Kidlujun [near Chenega]. It was never daylight but always dark. People were used to it, because it was never light. Then an old baidarka arrived. It was Raven. As he entered the smoke house he said: "What is wrong with this place since it never gets light? It is strange that none of you looks for the daylight." The people asked him: "Could you get the light? What do you mean by asking why none of us go for the light?" Anytime they became sleepy they went to bed, because they did not know what the light was. Raven said: "Yes, I am going away to bring the light."

Raven stayed away for a long time, but one morning he came back with his baidarka. He had a square box. Then he told the people that he was going to try the daylight. He had the chest in his baidarka, and he asked for two young and strong men to get it. It was tied up with rawhide. Raven was stripping it, and the two men were helping him. As he opened the box, daylight appeared. Raven said: "Now watch, as soon as the day breaks you must get up and build a fire." Since then they rose in the morning and did not sleep long as they used to do.

Next morning they called Raven in order to give him all kinds of presents, because he had brought them the daylight. He loaded his baidarka with all kinds of furs, but right behind the point he tipped over [and lost them]. The people did not see it. Raven swam to the beach, leaving his baidarka. He got soaking wet and could hardly swim. When he came to the beach he shook his feathers and started to walk back to the village. When he arrived there, the inhabitants sent some young men to look for the things he had lost, but they only found a few of them, and Raven stayed in the village.

Then he wanted to get a wife there, and the people gave him a girl by the name of Qaleratalik (*i. e.* Weasel in summer dress). Raven used to go out hunting every day, and every day he came back with his mouth full of moss. The people got tired of this and told him: "You better leave this place. You never bring back anything but moss." They also took his wife from him, as she could not eat what he brought. The inhabitants of the village were blackfishes.

One day a wooden canoe appeared round the point. Raven found plenty of dead mud-sharks and spat on them, saying: "I wish they may turn into canoes." Then he took all the land animals' souls and brought them back to the village in the canoe. It was full of them, and when the villagers

saw them they were pleased. Two snipes lit on the canoe, because[?] there were two lump-suckers on the bow. All the young people went ashore; the two fishes also tried, but fell into the water. They did not notice Raven at the front of the bow. He was wearing a spruce-root hat. The villagers invited them all to a great feast, but did not recognize Raven. When they were eating he looked like a human, but when he took off his hat they saw his beak. Then he said to his people: "You jump all over and go out!" He was the last one to leave and took his snot, threw it [at the villagers] and said: "May you turn into ice!" They all turned into ice, and afterwards he turned the souls back into animals.

How Raven brought Fire.

(Makari).

There was a large village called Urumiertuli [at the mouth of Sheep Bay]. There were many people there, but they did not know how to build a fire. They were rich and had all kinds of expensive furs. They saw a canoe coming around the point, and all began to shout. The canoe turned in to the village. It was Raven, all alone. It was in the fall of the year, and Raven had gone out hunting. The villagers were well pleased and took Raven up to their smoke house. They had no idea of how to start a fire. Raven said: "I wish you would place all your belongings under the smoke hole so I can see how they look—all your pretty furs." They had heard of fire and asked Raven if he could go after it and get some of it. He asked if they had got whole pieces of silver salmon with tails and all which had been put in the ground to rot. "Yes," they answered. Raven said: "Then I will go after fire to-morrow."

He left early in the morning and told the people to wait a day and a night. He would be back the next day. In the evening the next day he returned. There was phosphorescence on the water. He had taken a silver salmon with him, and when he came back he stirred it in the water; it made sparks like a fire. When he came ashore he left the salmon tail in the canoe. He told the people not to touch it, he would use it in the morning. The people were sitting there in the dark. "You have to get up as soon as day breaks," said Raven.

They all rose bright and early, they had listened to Raven. He got up himself and took two young men with him. They carried the silver-salmon tail and he also took a small seal stomach full of seal oil. He hit the trees standing there with the stomach till the oil squirted out. Then he beat the trees with the salmon tail, telling the men that the trees would turn to fire and would bake anything.

When he came back he told the chief: "Make two sticks with a cord, and we will have the fire started." The wood was red cedar. Then he told the chief to take the two young men and a weight to hold the sticks down while they were drilling. As they did so, the sticks began to smoke, and sparks flew. Raven had had the men make dry shavings to catch the fire. The shavings caught fire. They picked them up and waved them, then threw dry grass on them to flame up. The pitch bubbles on the spruce trees are the places where the oil squirted. Raven said: "This kind of tree will be for firewood." And he said to the spruce trees: "You will be firewood when I get through with you." They will cook any kind of food because he hit them with the salmon tail.

The people did not know what an adze was. Raven said: "Go down and look for greenstone, and you can make adzes out of them." They did not know about hunting, they ate only fish and shellfish, but Raven told them how to make hunting implements out of stone. People in other villages learned to build fires and to hunt from the inhabitants of Urumiertuli.

They loaded Raven's canoe with all kinds of furs and skins, so he became rich. Then he went away, they did not know where. He did not have his own village, but travelled all around.

Raven and the Harlequin Duck.

(Makari).

Raven was going to marry a harlequin duck. Formerly Raven was white, and he said to the duck: "I wish you would make me as pretty as you are." The duck answered: "I will do so." She did, but then a baidarka showed up from round a point, and the duck said: "I am sorry that I cannot finish you." "Donot finish me," said Raven, "just smear some charcoal on me." After doing so she left him and went to the water.

Raven and the Owner of the High Water.[1]

(Paul Eliah?)

There was an old, old woman. She was the Owner of the High Water. Raven was walking along the beach, when he found a sea urchin, all dried up and empty. Then he saw a smoke house and went in. He rubbed his hands and said: "I ate so many sea urchins my hands are cold." The old woman answered: "That is strange, I donot miss any tides. I am always walking on the beach, and I have not found a sea urchin yet." Said Raven: "You think I am lying to you?" Then he took the sea urchin from under his wing and rubbed it on her backside. She yelled: "Aiya, aiya! You were not lying, you found the sea urchins!"

How Raven Tricked the Bears.

(Paul Eliah).

There was a large village with many people. There were five young men, strong and good hunters who were always hunting brown bears. The oldest fell sick and died, and four were left behind, but they did not have luck any more and got no more bears.

Then an old woman said: "Why do you not try to get strength like your oldest brother?" It was winter. The brothers took a swim every day in order to get strong. After swimming in ice-cold water they would come out and try to tear apart trees with a double trunk to test their strength. The second oldest brother tried a tree and just split a little bit, not much. The next two tried but could not budge it at all. The youngest was the weakest and homeliest, but he took the tree and split it right down to the ground.

Then the chief of the village told them to stop swimming, because the youngest brother was getting strong now. "Now you are getting strong. Hunt for us now like your oldest brother did, and get some bears for us. We are starving now." The clever old woman took a silver salmon from the creek, skinned it and covered the youngest brother's left arm with the skin before he departed. When the sun went down the chief told him: "Now you can go to the creek and hunt bears."

The young man went and sat right in the creek where the bears always came looking for fish. He was sitting in the water and wiggled his arm like a fish wiggling its tail. Soon a bear appeared. It went for the fish that was wiggling its tail. The bear grasped the arm, and the young man seized the bear, tore its jaw in two and killed it. Every night he killed bears in this manner, and the brown bears were getting fewer and fewer at the place. Then the chief of the bear village became suspicious. He wondered why the bears going after fish never returned. "Something is wrong somewhere. Somebody is doing something to our people, killing them off." So he told three young brother bears: "Do something to become strong! Something is killing all our people."

The three young bears practised to become strong. They went to the trees and bit the branches in two with one bite. Then the chief said to them: "I see you are getting strong now, biting the branches in two with one bite. Go up the creek, and if you see a salmon wiggling, you bite it a little way up, not right at the tail."

So they went to the creek, and when one of the bears saw a fish wiggling, he bit him a little way up, as the chief had said, and bit the man's arm all off. Then the bear ran away without looking. It heard the man yelling and screaming. It brought the arm to the chief and gave it to him, saying: "Here is the thing I always went after." The chief skinned the salmon skin off and saw a human arm inside, but he made all the young girls leave the house first so they would not see it. Then he told a young man [bear] to fetch roots of a tree; he braided them and tied the arm around the wrist and hung it by the smoke hole. After that he told them: "Now build a big fire." They did so. Sparks were flying up there.

Raven went to the village where the four brothers lived. He could hear the wounded man screaming and yelling before he went in. He asked: "What is the matter with this man?" The chief answered: "A brown bear bit his arm off. Could you cure it? This young man is the only one that always brings us food." "If you pay me, I will do it. If you don't, I will not." The chief asked: "What do you want us to pay you?" Raven answered: "Well, I want fresh mountain-goat guts." The man was screaming whenever the sparks hit his arm. Raven said: "I will try if I can cure him."

[1] Cf. Birket-Smith & de Laguna 1938, 250.

He left the smoke house, put on his raven feathers and went to the bears' village. He lit right outside it. Somebody was sniffing inside the smoke house: "I smell a human coming. Dead or alive, come in!" Raven entered. They hurried to get him something to eat—silver salmon, silver-salmon eggs, and everything—they were so pleased to see him. While he was eating silver-salmon roe he looked up by the smoke hole and saw the arm. Then he asked the bears: "What is that hanging there?" even though he knew what it was. The chief replied: "That is the arm of the man who kills all our people here." Raven asked: "What have you got it tied to? What is that for a string?" "That is the root of young trees," the bears told him. Raven said: "Huh, that is not strong enough. Go and get some grass roots, they are much stronger." So they hurried to look for grass roots and tied the arm up with them.

Then Raven said: "Put plenty of bark on the fire!" It began to smoke so you could see nothing in the house. Raven put on his raven skin again when they could not see him. Before he went to the bears' village he had set twelve deadfalls on the trail. When it began to smoke, the bears put their noses on the ground; they did not want to look up. Then Raven flew up and seized the grass string and flew away with the arm. One bear was hiding in the sleeping room, and he saw Raven and cried out: "Raven flew away with the arm."

They all put on their bearskins and went out to follow Raven, but as they followed him, everyone got trapped in a deadfall. When setting the last one, however, Raven had been in such a hurry that he did not fix it right, and so one of the bears escaped. [Cf. The Bear that Escaped.]

Raven flew to the house where the man was suffering and said: "Here is your arm! I got it." The chief asked: "How are we going to put the arm back?" Raven answered: "That it easy. What are you going to pay me?" The chief said: "The young men are ready to pay you." Then Raven said: "Go out and get some spruce pitch and save all the urine in those pots so I can wash the arm." The young men returned with the pitch and Raven said: "Now you go out!" Raven was in such a hurry while the people were out that he got the arm on crooked, and that is why people's arms are crooked now. The man was cured and felt no pain anymore. Then Raven called the people and told the sick man: "Now show those people that you can move your arm. Does it hurt you?" His arm was as good as new. "Then give me the mountain-goat guts now! I am leaving," said Raven.

Even now when people kill a moutain goat, no matter how high they are, Raven is the first one to come around and call for the guts.

The Bear that Escaped.

(Paul Eliah).

Eleven of the twelve bears were killed in Raven's deadfalls, but one escaped. After two days he went home, but he could not stay in the village alone. So he went away and walked along the mountain tops looking for a place to live. At last he found a hole like a bear's den. He was not afraid of anything and opened the door and looked in. There was a man inside, so the bear went back for a distance of about fifteen feet and sat down under a tree to watch the hole.

In the morning the man came out. The bear took off his skin and went over to the man. At first the man was frightened and said: "Who are you? Where do you come from?" The bear told him he was a man and that all his people had been killed and he wanted a place to live. "Well, what are we going to do to help you?" "Let me stay here with you," the bear said. "No," said the man, "I have got a wife and three children. There is room only for us." Then the bear wanted the man to go back with him and help take the deadfall logs off his people and bury them all in one place, but it was too cold and there was a violent snowfall next day.

The man and his wife had run away from Fidalgo or Gravina or Sheep Bay where there was fighting. They had lived in the woods all winter on porcupines which they ate raw, and sometimes the man went down to the beach and gathered mussels which they also ate raw; they were afraid to build a fire. In the spring they had gone up in the mountains and had found a black bear's den where they lived for four or five years and had three children.

The bear was unable to find the place [where the deadfalls were?] and was enraged. He thought the man was fooling him. So he went back. The man was afraid and was waiting inside with his spear. The bear put on his bearskin before he came to the house. The man smelled him coming, so he jumped up and grasped his spear, wanting to kill the bear. He tried to stab him in the base of the neck, but

missed and just grazed his shoulder. He did not have room enough in the house to use his spear again. They fought and fought all over the house, while the wife and the children got over in a corner. At last the man got tired, he had no room to fight. Then he called out to his wife and children: "Better get away!" She took the children and ran out and climbed a tree.

Finally the bear came out and prowled in and out among the trees, sniffing and looking for them. He smelled where they had gone and came to the tree. The youngest child became afraid and started to cry. His mother put her hand over his mouth, but the bear heard him. So he took off his skin and went over to the tree and called: "Come down! Don't be afraid of me, I will help you." Then they climbed down. The woman wanted to go back to her husband, but the bear said: "There is a brown bear in your hole, and if you go back he will kill you and the children too. What do you intend to do now? You better come with me!"

His skin was lying on the ground beside the children. The woman had a bone dagger under her clothes next to her breast. She said: "Come over here with me, I want to talk to you." The bear left his skin, and they walked about fifty feet away. "Which direction are we going to travel when I go with you?" the woman asked. She had her hand on the dagger under her clothes. "Oh, we are going down that way," said the bear, turning his head as he pointed. When he turned his head she stabbed him to the heart. Then she went back to the children and built a fire and burned the skin.

After that she took the children and they went back to the den. As they came near they heard a low moaning: "Ai, ai . . .!" They entered and found the man lying on the floor. He could not move, his arm was broken and his belly was all ripped up. "Oh, I thought the bear got you," he said, "better hide, he will come back." "No, I killed him," she said and showed him the dagger covered with blood. "You were lucky, but what am I going to do now? I cannot move at all." "Never mind! I will cure you right away." She was a shaman and started to sing and to dance. Her husband fell asleep. When he woke up he felt himself all over and he was whole, neither cuts nor bruises. He tried to move his arm, and it was as good as before.

(Paul Eliah said there was more to the story, but he did not remember the rest).

How the Blackfish Stole Raven's Wife.
(Paul Eliah).

Raven went away in his canoe and got to a bay where he saw smoke coming out of a smoke house. There were people living there. Just as he was going up to the house he heard someone say: "I smell a human being coming up. You can come in, dead or alive!" As he entered he saw a great many people and a young girl sitting inside. The old women were busy hopping around in the house when that young fellow Raven came in. They made a seat for him alongside the young girl. She was dressed in marten skins. Raven kept hopping sidewise up closer and closer to her. An old woman gave Raven something to eat, handing it to him in a wooden dish. He kept hopping closer to the girl. The old man and the old woman were codfish. Raven thought it was strange that he kept finding so many codfish bones in his dish.

Then the old woman asked him: "What made you come over here? Very seldom people come over this way." Raven answered: "I heard about you people that you had a young girl over here. That made me come over." The old man and old woman said: "We are getting old and cannot do anything more. If we could find a young man who could help us out we would give her to him. Our daughter always wants something nice to eat every day, something different. But we are getting old." Then the old woman said to her daughter: "Now answer this young man. He wants you for a wife. Tell him what you like best to eat." It was the middle of the winter. The girl asked for a crane egg. Raven said: "Too bad! What am I going to do? I must try my best. I like that girl." Then he added: "I am leaving now. Wait for me! Do not go to bed, I am coming back to night."

He left with his canoe, but he went off a little way only, then he put his paddle in the canoe and went to sleep, saying: "I hope I may dream where I can find those eggs." As soon as he fell asleep he dreamed that he was fishing. He had a line overboard, and something was jerking on his hook. He was pulling his line up and found a big stump at the end. There was a nest on it with three eggs. As he woke up he went a little farther out and put his fishing line out. The wind began to blow a little from the southwest. Then he felt something on the line and began to haul it up. His heart was beating. He was holding his heart with one hand and hauling up the line with the other. "Oh,

I hope I may get what I was dreaming of." The water beside the baidarka turned brown. He saw the stump coming up with a nest on top and three green eggs in it. He took them and put them on his lap, dropped his hook and line and went ashore.

When he arrived there he did not wait, but hauled up his canoe and ran into the house without warning. The old woman said: "Poor fellow! You have been out all night and did not have any luck. Where did you think you could find them?" Raven answered: "What do you believe I am? I am a young man." And he took the eggs out of his coat. The young girl was a kind of "queen". The old woman wanted to take the eggs, but the girl beat her. She took Raven around the neck and kissed him and made him sit down on the furs in her seat. Then the old man and the old woman said: "Now you have got what you wanted—someone who can find what you want to eat. You can marry him." So she did.

Now Raven said: "I am going to take my wife away for a couple of days. Then we will come back again." Raven and his wife left, and the old woman gave them dried codfish. Raven put his wife in front of him in the canoe so she could face him. [Explanation: Raven had a skate-skin canoe called ARAKVIQ, the same name as for an Indian dugout].

When Raven and his wife had gone a little way they met the Blackfish. They came alongside in baidars. The Blackfish chief asked: "Have you got anything [eatable] in the boat?" Raven answered: "We have dried codfish." Blackfish said: "I wish you would give it to me, I am hungry." The chief of the Blackfish asked Raven: "Do you know how to eat that?" Raven answered: "No." "Take a bite, then close your eyes and chew." Raven took at bite and closed his eyes. Then the Blackfish chief took Raven's wife, placed her in his baidar and dived with her. When Raven opened his eyes he just seized the tip of the Blackfish chief's tail and tore it off. Raven wept and wept and did not stop weeping, while he was holding the tip of the tail. He did not paddle, but drifted on the beach. So he walked around the beach weeping and holding the tail.

A little black singing bird was flying around, and Raven asked her: "What are you doing around here?" The bird answered: "I am just walking around." Raven said: "Did you see those blackfishes?" "I saw them, but I cannot tell you [unless] you pay me." Raven asked: "What do you want me to pay you?" "You could find what I want," the little bird said, "if you give me what I want I will tell you where your wife is. I want maggots." Then Raven went away in his canoe, and it was not long before he returned with two big clam shells full of maggots. The little bird said: "Don't be in a hurry! I must wait for the tide. Come with me!" Then the bird took him down to low water mark, lay on her back and put her feet up. She was going to lift the water. "When I lift the water up, you crawl in. You will see a road in there. You follow the road."

Raven kept walking and walking along the road under the water. Finally he saw a long sandspit with a smoke house, and smoke coming out. He heard someone inside say: "I smell something coming. Dead or alive, you can come in." When Raven entered he saw an old, old woman sitting by the fire. She was full of ashes and soot from the fire. [Explanation: She was a Codfish, and there were many codfish living there. The floor of the house was raised, because she did not like to stay on the bottom. She was sitting on the high kelp, because she could not sit on the floor. She was tall and thin, with a little thread hanging from her chin.] The old woman asked Raven: "How did you happen to come here? Very few people come here." "I am looking for my wife." The old woman said: "Two days ago they [the Blackfish] passed by here with a young woman dressed in marten skins. Keep on going! There are other people living above me, and they will tell you where they took the girl." [Explanation: A Halibut entered Codfish's house; they thought he looked strange, for his eyes were both on one side, and he flopped down any way on the floor. He could not sit on the kelp. He accompanied Raven to the next house.]

Raven left the house and went to the other people. He heard someone inside the smoke house say: "I smell someone coming. Dead or alive, you can come in." There was another old woman in there, with big eyes and big lips. She was a Red Snapper. She said: "I am going to give you something to eat." [Explanation: Red Snapper was a small woman, all red. There were big rocks in her smoke house, and Raven saw her come out from under them. She moved very quick and was always busy. While she was cooking food for Halibut and Raven she was always looking up to see the fish hook hanging down.] After Raven had eaten, she asked: "Why do you come here?" Raven answered: "I am looking for my wife. The Blackfishes took her and dived with her." "They passed by here one day ago," the old woman said, "you follow this road. There are other people living above me. They will tell you the thruth."

When Raven left the smoke house he took some hemlock bark and put it under his wing. He walked and walked. At the end of the beach he saw a smoke house. As he came by he heard someone say: "I smell someone coming. Dead or alive, you can come in." Raven entered and saw a black thing coming out of the sleeping room hole. It was an old woman, the Black Bass. [Explanation: Black Bass fed Raven and Halibut. She took down little minnows that were stacked on the roof, jumping up from the ground and pulling the fish down. She had the fishes strung on a spruce root and slid them off the string as Raven was eating them.] Black Bass said: "What made you come here? Very seldom people come here." "I am looking for my wife. The Blackfish took her." "They passed by here today. They are just a little way above here. I will give you something you can give them for a present. I am going to give you a spear head. It is difficult to get where your wife is. They have a watchman on top of their smoke house, a crane who is always watching. You will never be able to sneak up on that watchman unless you listen to me. As soon as you hear the crane cry, pass up the spear head and he will stop crying. It is difficult to get onto those Blackfishes."

Raven was sneaking up the road. As soon as he came to the place, the crane began to squawk. So Raven held up the spear head and Crane stopped. He came down to Raven who was lying in the road and said: "If you give me something good, I will tell you where your wife is. The Blackfish chief has got her." So Raven gave him the spear head. That is why cranes have a long beak; that is Raven's present. They had short beaks before.

Crane took Raven by the hand and took him into the smoke house and opened the bath-house door. The Blackfish were all in there, and so was Raven's wife. They were puffing: "Hw . . . [inhale] . . . phw . . . [exhale]!" Crane told Raven: "Go in and lay down alongside your wife. They will not notice." So Raven did. They were all sleeping. Raven tried to puff like them. He made it twice, then he forgot and went: "Qrhoq!" The chief woke up and yelled: "Wake up! Raven is in here. Bake him under the fire quick!" They dug an oven under the fire and put Raven in there and placed a large slab of slate on him and built a fire on top. Raven still had the bark under his wing. Now he took the bark and began to chew it. He squirted [the juice] up from under the fire. The red saliva hissed in the fire. Then the chief said: "He is baked now. His stomach is burst, and blood is coming out. Take him out." They put him on a dish and took him down to the lavatory [sic!] and dumped him down the hole.

Everybody came in and went to the lavatory. He sat there and watched everyone who came. At last his wife entered. He took her feet and pinched her. She looked down. "Are you down there?" "Yes, I am." "How am I to come to you?" she asked. "You go back! I will get to you." After they all had gone to bed, he got out from the lavatory and went to the sea and washed himself. Then he went to the place where the mink, the marten, the weasels and the small squirrels live. "I want to borrow your skin boat," he said. The amrhut [suckers?] were there, too. Raven said: "I want two martens, two minks, two weasels, two squirrels, and two amrhut." They all looked like humans. The amrhut were sitting at the bow of the boat, paddling. When they were landing there was a big swell. All the blackfish came down to the beach to help the boat land so it would not get hurt. When they landed Raven told the animals: "Now you go ashore." So they were all jumping out, one after the other, except the amrhut who were left on the bow. Raven said: "What are you doing there? Why do you not go ashore?" So they tried to jump ashore but fell into the water. The Blackfish came down to save the amrhut and packed them out. The squirrels and other animals were jumping all over the trees. The Blackfish took the skin boat up and did not even let Raven touch it. They thought he was a chief and did not recognize him.

When they entered the house the Blackfish gave them something to eat. The squirrels and martens were climbing all over the poles of the smoke house, but the amrhut were lying by the fire, sloppy. Then the chief of the Blackfish said: "What do you do with these people? They are so quick. They never came here before. Why are they so quick?" Raven answered: "I took out a piece of their liver, a piece of their lungs and a piece of their heart, that made them active. You see those two clumsy people there? They would not let me do it, they were afraid. That is why they are lazy." The chief said: "If you could do that, I wish you would do it to my people so they would [also] be swift." Raven told the Blackfish: "Go up to the woods and fetch some pitch." Then he told the chief: "I will paste their eyes with the pitch. Then I cut their livers off. That is how I do to my people." After that he said: "All of you lay down in one line, belly up." When they lay down in a line he heated the pitch and smeared it on their eyes. He told the Blackfish: "Tell me if you can see the least little bit so I

can put on more pitch." The chief was the last one, and he placed Raven's wife outside him. Raven put pitch on his eyes, but one of his eyes was a little open. However, he did not say anything, and Raven began to butcher the Blackfish right up the line. [Gesture of cutting them open from the throat downwards and spreading them open.] The chief noticed it, he jumped up and shouted: "Ohe, he, he! Raven is butchering all our people!" He jumped up and skipped out of the smoke hole before Raven could prevent it. Raven's wife hid in the sleeping room, and the Blackfish chief went right into the water and dived. Then Raven's wife said to Raven: "You told me the truth when you saw me in the lavatory. You said you were going to save me. Now we will take all the Blackfishes' possessions and go away." So they loaded up their skin boat and left.

(The explanations inserted in the text were given us next day by Paul Eliah, without an interpreter. The halibut was not mentioned at all in the original version as translated by Matrona Tiedemann).

Raven, the Bears, and the Whales.

(Makari).

There was a village with many people who were hunting brown bears. They were clever people who used to take a silver salmon and cut it in half, shaking the tail part under a rock while another man was lying behind with his spear. When the bear jumped after the salmon, he stabbed it with his spear and killed it.

There was a place near the village where many bears were living, but by and by they became fewer and at last very few were left. Then the bears looked around for somebody who was more clever than the villagers and were pleased to let Raven into their house, where they gave him food and told him that they were looking for clever people. Raven said: "You are looking for clever people? I know where there is one. He likes to eat dried salmon eggs." Then the bears went to the man, and Raven was in the bears' house when they brought him in. Raven said: "I know why you are getting so few. The humans use to take salmon tails and wave them under the water and kill you with their spears." The clever man said: "If you see a salmon tail wave, do not bite it, but bite higher up, and you will bite off the arm." After that he left.

[Some time afterwards] the bears went after Raven again, brought him back and told him that they had bitten a man's arm off and wanted to cause him pain. Raven told them: "Take the arm and hang it up with the hand under the smoke and get some yellow cedar and burn it. Then the man will always feel pain and not recover."

Then the villagers looked for Raven and asked him why the man was feeling pain after the bears had bitten his arm off. "Do you think we could find that arm?" they asked. Raven said: "I know where it is." "Do you think we could get it?" Then Raven went to the place of the bears, making deadfalls all the way to their house. Inside the house they had built a great fire of yellow cedar wood, and the arm was hanging over it. When they had tied the arm they had used tree roots, but Raven said: "You ought to use grass roots. The man is very sick and suffering, but the grass roots will cause him more pain." So they changed the string. Raven was going in and out every few minutes, and the bears wondered why, but he told them: "When people get old they cannot hold their water as when they were young." The bears were eating, and Raven was watching them while he said: "Slack the line a little."

Then Raven seized the arm and flew away with it. The bears pursued him, but they were all killed in the deadfalls except two very old ones; if they had been killed also there would have been no more bears. Raven brought the arm back to the house and fetched some water, because it was quite dried up. Then he told the young people to go into the woods and get pitch from the trees. After that Raven told them to place the sick man alongside the fire, took the sore arm and said: "Now I am going to sing a song." He made circles around the fire, and in every corner he put his beak out and called for help. Meanwhile he told the people: "Keep your eyes closed!" And every time he made a circle he put his beak outside so that all the bushes there—salmonberries, wild currents and blueberries—could help him singing. At last Raven said: "Are you sure you have your eyes closed? Now I am going to fix the arm." Then he put pitch on the man's arm and put it in place, but he said: "One of you had one eye open, therefore I have put the arm on crooked." That is the reason why people have crooked [*i. e.* flexible] arms.

After that the chief of the village said: "We will give you anything you ask for, because you have cured the arm of that man whom we would not loose." Raven was single, and the man who had the arm bitten off had a young daughter, so Raven said: "I should like to have that girl."

Afterwards he took his baidarka and went away with her, when he met two blackfish. Everytime they came up from the water he said: "You have not got a wife like I have, dressed all in marten skins." Next time the blackfish came up again, one on either side of the baidarka, and said: "We have all kinds of dried fish and want to give you some." Raven asked: "How do you eat dried fish?" They told him: "That is the way we eat it: hold your head back and keep your eyes closed." He did so, but when he opened his eyes and looked where his wife had been sitting he only saw the snip of her marten-skin coat as the whales dived with her.

Then he went home and said that the blackfishes had stolen his wife. He took a walk on the beach where there was a sandspit and found a little smoke house. As he entered he found an old, old woman inside. The old woman was holding the tides. Raven wanted to know how she did so, but the old woman [only] answered that she could do so. She let the tide fall, and Raven went out looking for the blackfish but found nothing but a sea-urchin. After that he again went to the house of the old woman, and a little bird was right in front of him. Raven asked what she was doing. The little bird answered: "I am just walking here, but I can lift the water." "Can you lift the water, then do so," said Raven. It was high water, and the bird put her feet into it and lay on her back lifting the water and told Raven to enter. Then the bird let the water down again, and Raven went under the water.

Raven arrived where the blackfishes lived who had stolen his wife. There he met a blue crane who was the watchman of the blackfishes. As soon as the crane began to shout Raven gave him a copper spear to keep quiet. Therefore the crane has a long beak. The blackfishes came out and wanted to know what he saw, but Crane said: "I was so sleepy that I saw the dirt falling from my eyes, therefore I shouted." So the blackfish went into the house again. Crane told Raven: "When those two were out hunting they brought back the girl dressed in marten skins." Then Crane took the girl out of the house to Raven who went away with her.

(Cf. "How Raven Tricked the Bears" and "How the Blackfish Stole Raven's Wife").

Raven and the Whale[1].

(Makari).

Raven was walking along the beach, singing:

qutitäjARa	Taking a walk,
qutitäjARa	taking a walk
jIRURv'luxkən	the poor legs
aimcAquna'kək	do not break them,
RUik RUik	.....
RUik RUik.	.....

Then he saw a whale in the sea and shouted to him: "My partner told me that you have a big, ugly tail!" The whale opened his mouth and swam for the shore, and when he came there, Raven flew into the mouth. There he saw a little old woman sitting. She asked: "How do you come here?" He answered: "I called him. I wanted to know what is inside him." There was a big bag hanging in there, and she told him not to touch it, it kept her house up. It was the heart of the whale. Then she said "There is a lot of herrings coming into this bay [*i. e.* the mouth of the whale], help me to catch them, so I can smoke them." Then a lot of herrings came, and they both got busy. She was putting them up, smoking them, but Raven's feet were so far apart that he could only catch a few. Therefore he became disgusted. He had a copper knife. He took it and cut the bag. After that the old woman said: "Now the house is going to cave in. I will leave you." And she disappeared from the inside.

Now Raven became tired and cold and thirsty, it was dark, and he could not get out. So he said: "I wish that thing would drift ashore so I could get a drink of water." Then he did not feel the moving of the body anymore and heard people talking as they were moving on the whale after it had drifted

[1] Cf. Birket-Smith & de Laguna 1938, 265.

ashore. Then he wished they would cut a hole so that he could get out. They did so, and he flew out so quick that they wondered what kind of animal had been inside the whale, but they could not see him.

Then he took a different direction so that the people would not know from where he came and returned to the place where they were butchering the whale. They told him that they had seen something that flew out of the whale, but they did not know what it was. Raven said: "I know. You are all going to die." Therefore they became afraid and left the whale, but Raven went after Magpie and Blue Jay and said to them: "Now you can help yourself and eat it all up." The three birds ate the whale up so that only the bones were left. When they had finished they were all thirsty, and Raven told them to fly away. They found a great lake, and Raven told them to drink. They drank it all dry. After that Raven took a walk with them, but Magpie and Blue Jay had drunk so much that they bursted and died.

How Raven Fooled his Grandchildren.

(Makari).

Raven had a village of his own. He became hungry and took a walk along the beach. He had nothing more to eat. As he was looking for something he saw a little house where there was a big fire blazing. A bunch of little ravens were there. Then he shouted: "My grandchildren, what are you doing there on the beach?" "Oh, we are just busy about the seaweed," they answered. They did not want him to know that they had something to eat. Raven said: "I found a great big seal just around the point. You grandchildren go and get that seal. I will watch the seaweed so that it gets well done." "You lead us to the seal," they said, "We could not find it alone."

They went out, but just before they came to the point Raven said: "I stepped on something and cut my foot." He covered his foot with his wing. The little ravens wanted to see it, but he said: "I hate to let young girls see my cuts. I will stay here until you come back." When they got around the point he flew back to their house. There he entered and dug in the fire and found a seal they had been roasting under the fire. He ate as much of it as he could and hid the rest. Then he filled up the hole and built a fire on top again.

When the little ravens returned and dug in the fire, he stood a little way off and asked them if they found anything, but the little ravens became so disappointed that they all dropped dead. Then Raven took the rest of the seal and stayed there until he had eaten it all up. After he had finished he became hungry and started to walk again. He saw a little smoke house on the beach and an old woman inside. Then he found an old herring on the beach, took the scales and rubbed them all over himself. He entered shivering with cold and said: "Oh, I got cold out there picking up all those herrings." The old woman could hardly believe it. Her house was full of herrings. Raven had a sea urchin under his wing, so he took it and rubbed it over her backside. "Please stop it," she cried, "I have got lots of herrings." She had a canoe and took Raven out looking for them. They went a long way, but did not find any. Then Raven flew back to her house and ate her herrings.

The Sons of the Sun[1].

(Stepan).

There was a woman near Chenega, they did not know where she came from. She had a father and a mother and five brothers. There were many people living around here, and many men came and tried to marry her, but she would not. Then some other people came, but she would not marry them either. She thought there was only people around Chenega and said to herself: "How am I going to live if I donot get married and my father and brothers die? I suppose that if I pick the right man and my relatives die I will go to my husband." [She got married.]

Her husband took her to his home. He went hunting all the time, and every time he brought her animal guts, but no meat. He told his wife to eat them, but she declined. She wanted to see her family and said: "I never see my mother and father and brothers after so many years. I have waited a long time." Her husband said: "Do you not wonder when I bring those guts home?" "No," she said, "I do not wonder." Then he told her: "The guts are all your brothers' and father's guts. I bring

[1] Cf. Birket-Smith & de Laguna 1938, 294 ff.

them for your food." But she said: "I do not believe you. I do not think you could do that to me after you have taken me so far away from my father and mother. Why do you do that to me when I like you and you like me? I will believe you if I go to my old home and do not see my parents and brothers." Her husband said: "Yes, I will take you home." Then he told her not to take anything for herself to eat: "You eat some of your father and mother and brothers' meat." She answered: "I do not care. I will not take anything to eat, but I will not eat my mother and father and brothers' meat." So she went home with her husband.

As soon as they arrived there he went away and left her alone without clothes and nothing to eat. She went to the smoke house, and there she saw her brothers and father and mother—they were cut open like animals and all their guts were removed. She cried when she saw it, and then she believed her husband. When she had stopped crying she took them out of the house and lined them up in one place. Every time when she took one of them out she started to cry again. She talked to her father and said: "Will you please give me something to turn you alive again." She kissed him and carried him out. She spread all her hair out and started to wipe her mother's face with it and took her mother's breast and kissed it.

She did not feel very good after that and took a walk in the neighbourhood. During her walk she saw a little child's doll near her feet. She took it and told it: "Help me to let all my relatives turn alive!" As soon as she said so the doll's eye was winking; it was alive. The woman said: "I am going to sing." The doll said: "I will give you the words. Every time I give you a word your people will turn alive." The woman danced around one brother five times and the fifth time she said: "Get up!" and he did so. She turned them all alive. The people became numerous again.

Her brothers were going to get after their brother-in-law and went over and cleaned the whole village where he lived. The woman was "Owner" of the alders, and her husband the "Owner" of the sun. The five alder sons killed the [oldest?] son of the sun. Then the sun's sons thought they could get even with the five, and the second oldest of the sun's sons took his bow and arrows in order to kill the alders. The alders did not know what to do[?] and killed the sun's sons.

When he killed the youngest son of the sun, the youngest of the alder sons said: "You cannot get even with us. You have tried to feed my sister with my guts. You cannot get even with me, in summer time I grow to be an alder. You begin to be hot in summer, but in the summer I will go under the ice so you cannot kill me. In the winter my leaves begin to fall." The sun said he could burn anything, but the alders said: "We are not afraid to fight." The alders asked the sun when he could come back to them, and the sun said: "When it is hot, tell them to wait for me. I will come any time. I am going to try to burn you the first time, and if nothing happens the first time, the third time I will be still warmer." The alder said that he did not care how hot it was. "You have been treating my sister rough. If I do not grow any more, nothing in the land will grow any more. You would not show up any more if I die."

When the sun came it was very hot, and the sun said: "Next time I come you will not wear any clothes." The sister of the alders had a dog named Qitlatyuq. She told it to break wind, and when it did so it became foggy so that they could not see anything. It was not daylight, and the sun did not show up. The sun could hardly breathe and could see nothing after the dog had broken wind. The sun said: "I believe those people are hard to kill. Then the sun thought he could use arrows on the alders and sent a man down to tell them that he would fight with arrows. The alders answered: "All right, I know how to handle them. Even though I am sweating, if you put anything up, I can hit it with my arrows, and even if you hit me with your arrows, you cannot go through my skin." The spots on the alders are marks from the sun's arrows, but they could not go through the skin. That is true—the spots do not go inside.

The sun told the alders that the third time he came he would come with fire and burn everything in the land. The alders said: "All right, go ahead and try! We will put a guard for us. You will not get around to the land." The sister of the alders let her dog break wind again. Even though it was sunshine they could not see anything after that. The land was burned up, and all the plants—alders and devilclubs—got burns on the ends that made the leaves drop in the fall. The alders do so every year, but the sun could do nothing to them. They started growing again and never died.

The oldest brother of the alders told the sun: "Try your best to kill me. How will you think if there are no people in the world? I suppose you think that when anything grows in summer time you expect to kill them all. Probably you suppose that you will not let anything grow to eat around

here. You may just as well have it warm in summer time. You let it be cold in winter. Even if you try to get me, you will never succeed. I am certain that you will never get me. When the fire comes, we go under the ice. Until all the ice melts all over the world you will not get me. When you let it be so hot, I am going to make it foggy if it is too warm. I can make the clouds and let it rain. If I do not want to let it rain I will not let it. Even though there may be a cloud I do not let it rain if I do not want to, I only make it cloudy. I put clouds in every place, and I let it rain and let everything grow that is in the land. I have friends—the bees. My friends' nest will be hanging on me. The bees let the berries get sweet. In the fall when the fish ascend the creeks the people will have berries to put up for the winter. I and my friends make the berries. I suppose that you do not think about anything. I suppose you believe you are good just because you are bright. I suppose you do not know how people are going to live. It will not be long until there are many people in the world. You may just as well leave us alone. We do not know where we come from. We do not know who made us."

After that the sun and the alders became friends. The alders tell the sun what to do, and the sun tells the alders what to do. The alders can do anything to the sun, but they will not do so—just for us, for the people.

(Cf. The Sun's Children. Stepan said that he heard his version from his grandmother and that this is an "Aleut", *i. e.* Eskimo story. The song that the sister of the alders sang to make her relatives come to life again is the same song that nunam-ʃua taught Stepan as a hunting song. Both Stepan and the doll got it from nunam-ʃua, who makes the alders, cf. also p. 5).

The Sun's Children.

(Makari).

There was a village near Stikine River where the people were looking to see what made them old. Four [or five?] young men started looking. The oldest brother's name was S'qagaq. They had a sister called Tyamatyarhe and a dog called Kedlishuq; it was like a leader dog and could find anything going around sniffing. They left their home, and anything they saw they used to kill.

If it was not for the place where people got old, everybody would have stayed young. The boys were looking for that place; they wanted to find the man who made people old. As they were walking they came to a big waterfall which they could not cross. They all sat down there and saw the old man across the river. They shouted at him, but he paid no attention. Then they became tired and sleepy. They began to gape and yawn, and the old man who saw them thought they were talking. "What do you want?" he said. One of the boys said: "Yawn again, he might come over." One of them yawned, and the old man said: "I will come over to you." He crossed the river in his canoe and took them across to his place. They saw that the old man was yawning all the time. His name was Aituatyuat [*i. e.* Yawn]. Therefore he understood yawns, but he could not understand talking. When they yawned again he said: "All right, you will find whom you are looking for."

They left him with their dog and walked and kept on walking. Finally night came, and they were still walking. At daylight they started walking again and saw a big tree. Up high in the tree there was a big nest. The sister said: "Go ahead and shoot the nest with your arrows and kill whatever is in it." But they could not hit it. They kept shooting, but the arrows went only halfway and broke before they reached the nest. Then one of the brothers said: "We will have to make other arrows." The sister said: "Use red cedar, that will not break." They stayed under the tree several days but could do nothing. They hit the nest with their new arrows but they bounded back. The sister had "power". When she shook herself the brothers could always kill game, but she could do nothing with the nest.

Then they went back where they came from. If they had killed the man in the nest people would always have stayed young. The man in the nest was white as snow. The old man at the waterfall ferried them back in his canoe. On their way they came to a large village with hundreds of smoke houses. They planned to kill the people, and the sister said: "I could do it. I might just shake myself, and we could kill the whole village." The four brothers and their sister were the children of the sun. They told the villagers that they wanted to fight. The people of the village were all kind of berries and trees: salmonberries, blueberries, and all kinds. The sun's sons began to shoot the people after their sister had shaken herself, but they could not kill any, because they were all bushes. They wondered what to do and decided to burn the ground up. It was the only way they could destroy those people,

but when they built a fire all the bush people jumped into the water. That is why alders have little marks on their bark: they are the scars from the sparks. The sister said: "We did not kill any of them because they jumped into the water." That is why trees are full of sap in the spring but dry out in the summer.

The boys and the girl went up in the sky to look for the sun, their father. When they found him he asked: "Do you know how you came up here?" "No, we forgot the way." Then the sun opened a trap door in the floor and said: "Look down, and you will find your way." The sun kept his children there and never let them go back. He had helped the fire by peeping through the clouds when his sons had tried to burn the village.

(Makari said that this was a Tlingit story from Stikine River, told by his great grandfather who was half Tlingit. Cf. however "The Sons of the Sun").

The Man in the Moon.

(Makari).

Kilaq, the man in the moon, originally lived on the earth, but sometimes he went up to the moon. He and another man named Kintluarshun used to go out hunting together and vied with each other. Kilaq got all sorts of animals and did not let Kintluarshun have a chance to get any. When they returned to the village he used to take a lot of small sticks and spit on them, saying: "I wish them to turn into animals." Then when Kintluarshun killed them and packed them home, they turned into sticks again. If Kintluarshun rose earlier [than Kilaq] in the morning and therefore got more game, Kilaq would go in another direction. because he felt that otherwise they would quarrel.

Once Kintluarshun hid Kilaq's hunting implements away, but Kilaq knew it and took them back again and put some other implements in the same place where they had been lying. He was disgusted, because Kintluarshun had beaten him by rising so early, and went away to the moon. Next day Kintluarshun went out early in the morning, but every time he hit an animal his implements broke, and he did not get a single one. Kilaq stayed in the moon and would not return, because he had given Kintluarshun the useless implements. Kintluarshun made himself new tools but never had any luck, and the whole village where he lived starved to death, because he could not procure any game. Then Kilaq wondered why Kintluarshun never turned up any more, and when he came to the village he only found alderbushes there because everybody had perished. Kilaq had only one eye.

The Moon.

(Matrona Tiedemann).

The moon took a woman far away from her parents. She felt unhappy and lonesome. The moon had a big pile of slates, but at first he did not tell his wife about them. At last, however, he felt sorry for her and let her look in the slate. Now she could see all her family as if she was transported to them. After that, he let her see them whenever she was sad.

(As Makari explained the story, the slate was a round slab over a hole in the corner of the house floor, and when it was raised the woman could look down to earth through the hole).

The Man Who met Imam-Shua.

(Stepan).

A man used to go out hunting, but whereas lots of people killed all kinds of animals he could not kill anything. The man felt bad about it. One day he took a walk around the beach and there he fell asleep. As he woke up he saw a woman standing by him. She asked: "What are you doing around here?" He told her: "I felt bad because I cannot kill any game. Other people kill all kinds of animals." The woman said: "It is your own hard luck that you can get no animals. Did you ever behave yourself as a child? I am going to tell you all about it. You used to stay among menstruating women and to eat in the morning when they were washing in the house. You used to eat even when there were all kinds of dirt in the house. You never would listen to the old people when they told you what was right. Now take off your boots." When he did so she put her hand on his head, and he saw dirt coming out from his toe nails. Next time she again put her hand on his head and he saw bloody water coming out from his toe nails. She said: "That comes from the women. You used to eat even

when the women were menstruating. Now this stuff comes out." Again she put her hand on his head and told him: "Now take a look at your clothes." And he saw dry blood all over them. The man was wondering where it came from, and she told him: "You used to grasp the women with your arms. That is where the blood comes from."

Then she put her right hand on the man again, and he felt better and light. She let him take all his clothes off, and piled the dirt that came from them on the beach, took him to a little creek and let him wash himself. She gave him new clothes and stood up, and the man looked over her clothes and saw all kinds of little animals hanging on her coat. She told him to take five little animals from the coat, whatever he liked, saying: "Now if you listen to me, you take those five little animals from me, and you will get them all the time. Every time you go away, put them in a safe place and do not take them home. Leave then some place where they can stay safe. If you take them home you will loose them and kill no game anymore. Now while I am here burn your old clothes and that dirt."

She told him to keep himself and his feet clean, and not to be lazy, to make steam baths and chop wood, and get up early in the morning. If he slept long he would lose all the animals he was going to kill. "If you are lazy you will not kill anything and the animals will not come to you." She said that she liked him and told him to listen to what she said. Then she stood up. "If you start hunting to morrow you are going to get animals. I see you many times when you are hunting sea otters among the other men. Now you see what you had before. That is why the animals did not come to you. The sea otters come from me. Now I am leaving you, but listen to my words."

The woman went down to the sea, and as soon as the water came over her ankles she turned into a sea otter. The woman was imam-ʃua. Later the man told this story, and that is where it comes from.

ANALYSIS OF CHUGACH CULTURE

Regional and Chronological Differentiation of Eskimo Culture.

It is now a well established fact that Eskimo culture is far less homogeneous than it was believed to be only a generation ago. A brief characterization of the main types may therefore be useful to the general reader.

From an ecological point of view the most conspicuous difference is that between an inland and a coastal pattern. Typical representatives of the former are the Caribou Eskimo on the Barren Grounds west of Hudson Bay. On the whole, their culture seems to be very old-fashioned and, according to my interpretation, a direct outgrowth of a Proto-Eskimo inland stage[1], a view that to some extent has been strengthened by the fact that the early prehistoric cultures of the adjacent regions show a strong continental stamp[2]. Other inland tribes are the Nunamiut or Nunatarmiut on the Colville and Noatak Rivers in northern Alaska. Apparently they are in closer contact with the inhabitants of the coast than are the Caribou Eskimo, depending on them for their supply of blubber, sealskin thongs, and skin covers for their umiaqs. Whereas I formerly advanced the opinion that they were descendants of coast dwellers who had moved inland[3], Helge Larsen and Rainey have recently—and, as it seems, with good reason—suggested that the difference between the inland and coastal groups is too deeply rooted to be explained by the geographical environment alone, in other words that also in this case we have an original inland population[4]. A considerable antiquity is at least indicated by the fact that the Ahteut site on the Kobuk excavated by Giddings seems to be roughly contemporaneous with the Western Thule and Punuk Periods on the coast[5]. Finally, there are a large Eskimo population in the Yukon-Kuskokwim delta and a few inland bands in Labrador, but as yet too little is known of them to allow any suggestion as to their origin, although it would not be at all surprising, in view of the discoveries in northern Alaska, if the former would prove to date as far back as the Nunatarmiut.

The broad outlines of the prehistory of the coastal groups between Bering Straits and the Atlantic are now fairly well known, thanks to a long series of excavations. It may, perhaps, most adequately be characterized in terms of an increasing adaptation to the sea[6]. On the earliest level, comprising the Ipiutaq in Alaska and the Dorset—including the related West Greenland phase[7]—in the Eastern Arctic, sealing and walrus hunting occurred, but caribou hunting was of equal importance, and whaling was altogether

[1] Birket-Smith 1929, II. It is probable that we have archeological evidence of an Alaskan Proto-Eskimo stage in the Denbigh Flint Complex (Giddings 1950, Giddings 1951) and Helge Larsen's finds from Trail Creek (Larsen 1951, 70 ff, 88 ff). Cf. p. 230.

[2] Jenness 1933, 395. Jenness 1937 a, 34 f. Holtved 1944, II 170 ff.

[3] Birket-Smith 1929, II 223.

[4] Larsen & Rainey 1948, 34 ff. Cf. Larsen 1951, 70 ff.

[5] Giddings 1944, 132 f. Larsen & Rainey 1948, 174.

[6] Birket-Smith 1950 (with detailed references). Cf. Larsen & Rainey 1948, 146 ff. It should be noted that the radiocarbon dating of Ipiutaq at ab. 1000 A.D. (Johnson 1951, 8) is hardly acceptable since Okvik, which for archeological reasons must be nearly contemporaneous with Ipiutaq, has been dated at ab. 300 B.C. by the same method (Johnson 1951, 15).

[7] Cf. Meldgaard 1952, 229 f.

unknown. The principal stone technique was flint chipping, whereas polished stone implements were very scarce. Other remarkable traits of the Ipiutaq culture are the highly developed art related to the Scytho-Siberian animal style and numerous quite enigmatical, twisted bone carvings. So far at least, no Ipiutaq lamps have been found. Dorset decoration, on the other hand, consists of crude linear designs, and small, oval or triangular stone lamps are common. In spite of these and other differences the cultures in question are obviously related, representing a stage of development that corresponds most nearly to the Paleo-Eskimo culture of Steensby, although his view must be modified in some details.

In time, the Ipiutaq culture gave way to other culture types in Alaska. In the region around Bering Strait we have evidence of the so-called Old Bering Sea phase, characterized *i. a.* by an art different from, though related to that of Ipiutaq. An early stage of this art has been described by Rainey as typical of what he has termed the Okvik phase, preceding the Old Bering Sea proper, while Collins has traced the development of the elaborate and variegated style through an intermediate stage, the Punuk, to the more degenerate art of the modern Alaska Eskimo. Apart from the difference in art and the gradual change due to the development of old types and the introduction of some new ones, the general stamp of these phases is remarkably uniform. Whaling from umiaqs is a prominent feature, nets for sealing (or fishing) were made of baleen, pottery was employed for lamps and cooking pots, and polished slate blades replaced chipped flint implements in increasing numbers. Obviously, these phases all belong to the Neo-Eskimo Culture of Steensby (Arctic Whale Hunting Culture of Larsen and Rainey).

At Point Hope there is no evidence of the Old Bering Sea, which seems to be a rather local development. Here the Ipiutaq culture was succeeded by the Birnirk phase, the remains of which are found over large parts of North Alaska and as far as the mouth of the Kolyma on the north coast of Siberia. Again we meet a typical Neo-Eskimo pattern with whaling, pottery, polished slate implements, etc. The Birnirk phase was gradually transformed into a Western Thule culture, which in its turn passed into a late prehistoric phase called Tikeraq. It is an important fact that the occurrence of an early Thule culture, in some respects differing from the Thule of the Eastern Arctic, has thus been definitely established in Alaska. Even though some Thule types had been found previously on St. Lawrence Island, and Jenness and Collins had excavated a site near Cape Prince of Wales showing that Thule and Punuk were contemporaneous, there was no absolute proof that a well-defined Thule horizon existed in Alaska till it was brought to light by Helge Larsen and Rainey at Point Hope and by Giddings at Kotzebue. Accordingly, Holtved might assume an eastern origin of the Thule culture, but this idea must certainly be abandoned now.[1] The last prehistoric phase in North Alaska is characterized by a revival of Thule types with the addition of a few elements of eastern origin such as stone lamps in stead of the earlier ones of pottery.

In the Eastern Arctic the period subsequent to the Dorset culture is distinguished by a spread of the Thule complex eastwards as far as Labrador and Greenland. Whaling, sealing by means of nets, polished stone implements and other Neo-Eskimo traits were thus introduced. Pottery reached Hudson Bay but is not known from the regions farther

[1] Holtved 1944, II 164 ff. Holtved also stressed the chronological difficulty in placing the Thule culture in the cultural sequence of Alaska, because on Ruin Island off Inglefield Land in Greenland he found a local phase of the Thule culture with what he supposed to be Punuk admixture (*ibid.* II 149 ff.). This view was based on the assumption that Thule was later than Punuk. As however, Punuk and Western Thule have been proved to be roughly contemporaneous the supposed difficulty disappears.

east. The Dorset culture persisted, however, for some time during the Thule period, and certain elements of the late Thule, which do not occur in its early phase in the west, probably date from this period of contact, as for instance the broad, semilunar soapstone lamp, the soapstone cooking pot, the snow knife, and probably the fully developed snow hut.

In Greenland the Eastern Thule culture underwent a further development resulting in the Inugsuk stage, which, besides an increasing importance of kayak hunting, shows signs of medieval Norse influence. At the Northwest Passage, however, it succumbed to an advance of tribes from the inland. This is the reason why the modern culture there has an unmistakable continental stamp while, on the other hand, it also includes a rich inheritance from the Thule period[1]. Thus, a so-called Eschato-Eskimo stratum was deposited on top of the Neo-Eskimo layer in the central area. The revival of Thule elements in North Alaska must undoubtedly be correlated with this advance of inland tribes which drove some of the Thule Eskimo back to the west.

It is time now to turn our attention to the prehistory of South Alaska, which so far has been left out of the discussion. Here the Bering Sea region forms a transitional area between the Arctic and the Pacific coast, while at the same time it has to some extent an individual character owing to the development of a ceremonialism unparalleled elsewhere among the Eskimo. However, the most aberrant type of culture is found among the Aleut and the Pacific Eskimo. Some of its conspicuous features are: sealing with barbed harpoons from two-man baidarkas, whaling by means of lances with poinsoned slate heads, long shirts made of bird or ground-squirrel skins and often without a hood, small stone lamps for illumination only, and a social organization including hereditary chiefs and slaves.

Unfortunately the archeology of this area is still imperfectly known. An Ipiutaq-like culture has been found by Helge Larsen and Holtved in the environs of Kuskokwim and Bristol Bay, but till now only a preliminary report has been published[2]. Much more work has been done on the Aleutian Islands and the peninsula, but also here full descriptions of the finds are for the most part lacking. Jochelson certainly shot beyond the mark when, in his criticism of Dall's alleged stratification of the Aleutian shell heaps, he concluded that the earliest inhabitants possessed a culture virtually identical with the one encountered by the Russian invaders[3]. Renewed investigations, notably by Hrdlička, Quimby, Helge Larsen, and Laughlin have shown certain differences between the early and late horizons of Aleut culture[4], but the fact remains that there is a remarkable uniformity throughout all periods. The same applies to the coast farther east. A village site, probably of rather considerable antiquity, was excavated by Weyer at Port Möller[5]. On Kodiak, as on the Aleutians, Hrdlička distinguished between two periods of occupation[6], but a satisfactory description of the archeological remains is still unavailable. The most detailed cultural sequence from the region in question was established in Cook Inlet by Dr. de Laguna, who set up three stages, Kachemak I–III, but also here the difference between them is rather slight[7]. The last period we found, in nearly identical form, represented in Prince William Sound, whereas here most traces of earlier occupation seem to have been washed away by the sea on account of a recent sinking of the shore line.

[1] Birket-Smith 1945, 282 ff.
[2] Larsen 1950.
[3] Jochelson 1925, 101 ff.
[4] Hrdlička 1945. Quimby 1945. Quimby 1948. Laughlin & Marsh 1951. Verbal information from Helge Larsen.
[5] Weyer 1930.
[6] Hrdlička 1944, 319 ff.
[7] de Laguna 1934, 121 ff.

Both on the Aleutians and the Pacific coast the population obtained their staple food by sea-mammal hunting and fishing. The early stone implements were chipped, and decoration was limited to rather crude, incised lines. In the latter respect, as also in the shape of the small lamps, there is an unmistakable affinity to the Dorset culture[1]. Later, some new elements were introduced, as for instance fishing nets and pottery. The latter is of a type different from that to the north of the Yukon and possibly related to the prehistoric Jômon and Yayoi ware of Japan[2]. No traces of pottery were found, however, at Prince William Sound, and according to oral information by Dr. Helge Larsen it seems doubtful if the coarse, so-called Aleut pottery described by Quimby[3] can by considered true ceramics at all. Laughlin and Marsh seem to share this view[4]. Along with the appearance of new elements, polished slate replaced chipped stone to a great extent, and there was some development in art, culminating in certain remarkably sculptured stone lamps characteristic of the Kachemak III period. A slowly growing Indian influence can also be observed.

Although the culture of the Pacific Eskimo differs from the typical Eskimo pattern in many respects, it nevertheless contains a great number of basically Eskimo traits, but in addition there are many elements which do not occur elsewhere among the Eskimo. In the following an attemtpt will be made at unravelling some of the threads in the complicated weave that form one of the Pacific culture types, *viz.* that of the Chugach described in the preceding chapters.

Paleo-Eskimo Elements: Archeological Evidence.

It can be stated with next to absolute certainty that many traits in the culture of the Chugach date back as far as the Paleo-Eskimo period. In the first place this is true of the elements known from the Kachemak I, Ipiutaq, and Dorset cultures and which are also more or less common to all modern Eskimo groups.

Thus, *barbed harpoons* occur from the earliest finds up to the present day: Kachemak I, Ipiutaq, Dorset, and modern, including the Caribou Eskimo[5]. Specimens from the Ekseavik site on the Kobuk prove that in the inland of northern Alaska they are at least contemporaneous with the Western Thule[6], but there is no reason to doubt that they are much older in this region, too. Moreover, the antiquity of the type appears from the wide distribution in adjacent areas[7]. In the Northeast it is present in the Laurentian, Laurentian-Archaic, and Red Paint shell heaps[8], and in the northern Plains area barbed harpoons reminiscent of Eskimo types occur in the Arvilla culture[9]. It is probably needless to add that similar points are common in the Upper Paleolithic and Mesolithic of the Old World. When discussing the barbed harpoon, Dr. de Laguna expressed the opinion that within the Eskimo area it "distinguishes the Dorset and the North Pacific cultures from the ancient northern Alaskan group"[10], but this view can hardly be maintained after

[1] Jenness 1940, 8 f. Collins 1940, 571. Quimby 1945, 77 ff. de Laguna 1947, 13 f.
[2] de Laguna 1940, 69 ff. Heizer 1948, 48 ff.
[3] Quimby 1945, 1 ff.
[4] Laughlin & Marsh 1951, 82.
[5] de Laguna 1934, 82 ff, 121, 190. Larsen & Rainey 1948, 76. Jenness 1925, figg. 6 b-j, 8 g, k. Rowley 1940, 492. Leechman 1943, 368. Holtved 1944, I 207 f, II 45. Birket-Smith 1929, I 121, II 66 f. Add: Birket-Smith 1941, 135 (Kodiak).
[6] Giddings 1944, pl. xii a.
[7] Birket-Smith & de Laguna 1938, 434, 516. Leroi-Gourhan 1946, 337, 339, 347 ff, 351. Drucker 1943, 35 ff.
[8] de Laguna 1947, 199.
[9] Jenks 1932, 456 ff. On the other hand, this author probably exaggerated the similarity between Arvilla and Eskimo types, cf. Strong 1940, 386.
[10] de Laguna 1947, 201.

it has been found—although, to be sure, only in one specimen—in the Ipiutaq culture. It also occurs here in the early phases of the Neo-Eskimo horizon[1].

The thin *toggle harpoon* head with a closed socket, blade at right angles to the line hole, no barbs, and a single spur corresponds to Larsen and Rainey's Ipiutaq type 2, even though the latter more often has a bifurcated or trifurcated spur[2]. It may be accidental that it has not been found in Kachemak I, and similar heads, without blades, occur in the subsequent period[3]. The toggle heads of the Dorset culture were, of course, quite different. In the Eastern Arctic the thin type does not appear till the Thule period[4], when it was probably introduced from the west. In the central regions it has survived among the Netsilik and Iglulik tribes for the ice-hunting and walrus harpoons, respectively[5]. The whaling harpoon heads from Cumberland Sound are almost identical[6]. Still more suggestive is, however, the fact that the same type of toggle head is used among the coastal group of Caribou Eskimo in connection with a bladder dart, the whole implement being thus an exact parallel to the Alaskan weapon[7]. Similar heads, differing only in having the blade parallel to the line hole, are used on bladder darts in Cumberland Sound[8]. Evidently, the type is old in Alaska. On the Asiatic shore of the northern Pacific it is known from ancient sites on Hokkaidô[9]. The Dorset toggle heads were apparently copied by the Beothuk, the prehistoric Indians of Nova Scotia, and the Iroquois[10], but on the whole the toggle principle is most characteristic of the western parts of North America, where we find it, outside the Eskimo region, on the southern Northwest Coast and the adjacent Plateaux. Dr. de Laguna has, in fact, called attention to the likeness between the Dorset, Northwest Coast, and prehistoric Ainu types[11], and there is no doubt that they are again related to the slender Ipiutaq and Norwegian toggle heads.

Detachable foreshafts may occur in KachemakI[12], and they are definitely known from Ipiutaq, whereas in the Thule District of Greenland they do not appear till the Neo-Eskimo period[13]. They are likewise known on the Northwest Coast all the way from Cape St. Elias to Puget Sound[14]. Thus, there can be no doubt that they are old in Alaska and spread eastwards at an early period. Loose foreshafts attached to the distal part of the shaft, and not to the harpoon line as on the Northwest Coast and some Eskimo harpoons, are, however, a specific Eskimo and apparently later invention. The flat or wedge-shaped butt common on Chugach foreshafts is found as early as in Ipiutaq beside cylindrical and and conical tangs.

In regard to the heavy *socket piece* for the harpoon Dr. de Laguna writes that "the type made in one piece was the original Arctic Eskimo form, though it was not introduced into Kachemak Bay before the Third Period. However, our material is not extensive enough to prove conclusively that the type in two parts was the only form known in southwestern Alaska in the earlier period"[15]. Recent excavations on Aleut sites confirm her supposition[16]. On the other hand elaborately carved, heavy socket pieces were found at

[1] Geist & Rainey 1936, 230. Rainey 1941, 495. Cf. Collins 1937, 126 (two socket pieces, probably for barbed harpoons).
[2] Larsen & Rainey 1948, 70.
[3] de Laguna 1934, 81 f, 123, 188.
[4] Mathiassen 1927, I 25 f, 148. Holtved 1944, I 190 f, II 43.
[5] Birket-Smith 1945, 57 f, 229. Mathiassen 1928, 47.
[6] Boas 1888, 500 fig. 436.
[7] Boas 1907, 80 fig. 109. Birket-Smith 1929, I 130 f.
[8] Boas 1907, 14 fig. 5.
[9] Leroi-Gourhan 1946, 397 f, figg. 851—52.
[10] de Laguna 1946, 116 ff. de Laguna 1947, 198.
[11] de Laguna 1947, 196 ff.
[12] de Laguna 1934, 88, 121.
[13] Holtved 1944, I 190 f, II 43.
[14] Niblack 1890, 289.
[15] de Laguna 1934, 195.
[16] Laughlin & Marsh 1951, 81 f.

Ipiutaq, and a simpler type is known from the Dorset culture[1]. It has persisted in Alaska to the present day and is evidently a northern Paleo-Eskimo trait adopted by the southern tribes at a comparatively late period.

Unfortunately, our description of the Chugach three-pronged *leister* is not quite clear. It does not appear whether prongs and barbs were made of one piece or whether the prongs had lashed-on barbs. Judging from archeological evidence both from Prince William Sound and Cook Inlet I suspect, however, that we have to do with the former type, which in Cook Inlet dates back to Kachemak I[2]. It seems to occur also in Ipiutaq in spite of the difficulty, not to say impossibility, of distinguishing between leister and bird-dart points[3]—in fact, the same three-pronged spear is used for both bird hunting and fishing by the Copper Eskimo this very day. Similar leisters are known from the Dorset culture[4]. They are not employed by the modern Central Eskimo except the Copper group[5], but they are common in Greenland and in Alaska[6]. As, moreover, they occur in early finds such as Red Paint, etc., in the Northeastern Woodlands, their antiquity seems to be well established[7].

The *lance* with a fixed head is another element that must be considered Paleo-Eskimo, in spite of the fact that we know little of the method of attaching the head in former times. This applies to the lance of the Dorset period, for instance[8]. However, lance heads which were apparently firmly attached to the shaft are described from Ipiutaq[9], and from Kachemak I there are stone blades which may have belonged to lances[10]. At present, lances with fixed heads are common all over the Eskimo area and many other parts of North America[11].

Dr. Helge Larsen found unquestionable *throwing boards* in the Ipiutaq site of Deering, whereas formerly there was only a somewhat problematic specimen from the same period at Point Hope[12]. Thus there can be no doubt that it should be included among the Paleo-Eskimo elements, although it is rare among the Central tribes[13]. Outside the Eskimo area we find it in the western and southeastern parts of North America[14]. The great antiquity of the throwing board in the Southwest is supported by archeological evidence from Gypsum Cave, Nevada, even if actual specimens were not found[15], and the gap between the occurrences in the Southwest and on the Northwest Coast is at least partially filled up by finds in southeastern Oregon[16], just as the finds from Texas and the Ozark Plateau link the Southwest and the Southeast. In the latter area it has been substantiated from the Mississippi delta at the time of the de Soto expedition[17], and of course the late prehistoric specimens from the Key Marco culture have long been known. The use of the throwing board in the Southeast seems, however, to have been more common than indicated by these finds. What may be bone pegs for such implements were excavated in archaic horizons in Georgia, Alabama, and Kentucky (Savannah River, Lauderdale,

[1] Larsen & Rainey 1948, 73 f. Holtved 1944, I 200, II 44.
[2] de Laguna 1934, 86.
[3] Larsen & Rainey 1948, 78.
[4] Rowley 1940, 492.
[5] Rasmussen 1932, 178 f. Birket-Smith 1945, 178 f. Jenness 1946, 111.
[6] Birket-Smith 1929, II 250, table A 29 (type I).
[7] de Laguna 1947, 206.
[8] Holtved 1944, II 45.
[9] Larsen & Rainey 1948, 80.
[10] de Laguna 1934, 69, 72.
[11] Birket-Smith 1929, II 65. Add: Birket-Smith 1941, 138 f (Kodiak). Birket-Smith 1945, 56, 170 (Netsilik and Copper Eskimo). Jenness 1946, 135 (Copper Eskimo).
[12] Larsen & Rainey 1948, 77. Larsen 1951, 87.
[13] Birket-Smith 1929, II 65 f, 153. Cf. Birket-Smith & de Laguna 1938, 434. Birket-Smith 1945, 230 f. Add to the list: Merck 1937, 129. Birket-Smith 1941, 140 (Kodiak). Lantis 1946, 172 (Nunivak). Rainey 1941, 495 (Okvik). Geist & Rainey 1936, 495. Collins 1937, 133 f (Old Bering Sea). Mason 1930, 386 (Birnirk). Osgood 1937, 86 (Tanaina).
[14] Cf. Martin, Quimby & Collier 1947, *passim*.
[15] Harrington 1933, 89 ff.
[16] Martin, Quimby & Collier 1947, 228.
[17] Swanton 1946, 59, 584.

and Coast Salish, and the Dorset culture, may be the oldest type, whereas heads with lanceolate points and blade slits are possibly somewhat later. Unilaterally barbed arrow heads occur in Kachemak I, Ipiutaq, and Dorset and are also widespread in North America[1].

On a former occasion I have ventured to show that the *stiletto*, though not very common among the present-day Eskimo, is nevertheless an ancient element[2]. This view has been strengthened by the fact that stilettos with inserted flint blades are known from the Ipiutaq culture[3]. In the eastern Arctic the stiletto occurs in the Thule period[4], but may, of course, very well be of older date there. It is known from the prehistoric Tena and has probably been found on Archaic and prehistoric Iroquois sites in the Northeast[5]. Drucker describes "long slender cylindrical rods of bone, usually of sea mammal bone" from shell heaps on the Northwest Coast[6], and it is not improbable that they should be interpreted as stilettos.

The *fish hook* with a straight shank and a barbed or unbarbed point attached to it at an acute angle may be Paleo-Eskimo, but its history is not clear. It has formerly been suggested that it was introduced among the Alaskan Eskimo from the Northwest Coast[7]. On the other hand, Dr. de Laguna now maintains that the unbarbed type is identical with the widespread gull hook and thus, of course, has a much wider distribution than supposed before[8]. The barbed type, which is dominant in Prince William Sound, Cook Inlet, and on the Aleutians, was, perhaps, used by the Coast and Interior Salish and by many tribes of California as well as by the Dorset people and some Indian tribes of the Northeast, who may, however, have borrowed it from the Eskimo[9]. Thus it would appear, Dr. de Laguna concludes, "that the V-shaped hook with a barb is only one among several links between the Dorset culture and Kachemak Bay I"[10]. It should be noted that according to Helge Larsen and Rainey the use of fish hooks in the Ipiutaq culture is open to doubt since "a few thin shafts of ivory or antler with an eye hole are the only specimens that can be interpreted as fragments of fishhooks"[11]. The introduction of iron hooks at an early period among the Eskimo has further complicated the picture.

I have previously stated some reasons for considering *fire stones* the first fire-making implements of the Eskimo[12], and this view has been strengthened by the find of pyrites from the Ipiutaq culture, whereas no fire drills occur[13]. Unfortunately we know nothing of the means employed in the Kachemak I and Dorset cultures.

It is now generally agreed that the small *lamp* for illumination only is the oldest Eskimo type, whereas the broad cooking lamp means a later adaptation to an extreme arctic climate and the lack of wood for fuel[14]. Dr. de Laguna has pointed out the affinity between the stone lamps of the Pacific Eskimo and the Aleut on the one side and the Dorset lamps on the other[15]. We have no true Ipiutaq lamps, whereas crude lamps made of a hollow and partially shaped boulder occur in the so-called Near-Ipiutaq, the age of which in

[1] de Laguna 1934, 90 ff, 121. Larsen & Rainey 1948, 64. Holtved 1944, I 213, II 46. de Laguna 1947, 204.
[2] Birket-Smith 1929, II 64.
[3] Larsen & Rainey 1948, 80.
[4] Holtved 1944, I 204, II 45.
[5] de Laguna 1947, 129, 181.
[6] Drucker 1943, 55.
[7] Birket-Smith & de Laguna 1938, 439 f. Rostlund (1952, 118) is of the same opinion.
[8] de Laguna 1947, 212.
[9] de Laguna 1947, 212.
[10] de Laguna 1947, 213.
[11] Larsen & Rainey 1948, 78.
[12] Birket-Smith 1929, II 97 ff. Birket-Smith 1945, 236.
[13] Larsen & Rainey 1948, 111 f.
[14] Cf. Birket-Smith 1929, II 100 ff. Birket-Smith & de Laguna 1938, 411 f. Birket-Smith 1945, 255 f.
[15] de Laguna 1940, 56. Laughlin and Marsh (1951, 82) found stone lamps on the Aleutians "from the lowest levels to the surface". For Kodiak lamps add: Birket-Smith 1941, 148. For Dorset lamps add: Wintemberg 1939–40, 309, 319. Rowley 1940, 495. Holtved 1944, I 261, II 53, 64. Meldgaard 1952, 223.

relation to the Ipiutaq culture proper has not been finally established[1]. Pointed-oval lamps of fine workmanship were found in connection with an Ipiutaq-like culture at Platinum in the region of Kuskokwim Bay[2]. As broad stone lamps were not introduced among the Coast Eskimo of northern Alaska till the reflux of Thule people from the eastern regions, it is important to note that rectangular stone lamps occur in the Ambler Island site on the Kobuk River[3], although their relation to the oval type is still obscure. The latter form is met with on both sides of the northern Pacific. Leroi-Gourhan admits that they must have developed from a common basic type, but he does not believe that there is a direct connection between the Asiatic and American forms[4]. Dr. de Laguna, on the other hand, feels certain that the Aleut-Pacific Eskimo type has been introduced from Kamchatka. "I suggest," she says, "that the pointed, oval lamps reached the Eskimo from the Asiatic North Pacific area and was, perhaps, ultimately derived from south-eastern Asia, or even from farther west"[5]. And further: "The round, oval-bottomed pottery lamps of the Old Bering Sea, Birnirk, and Punuk cultures were derived from the Arctic Ice-hunting horizon. The oval stone lamps of Southwestern Alaska and the Dorset culture were derived from the North Pacific cultural continuum"[6]. Whether the oval stone lamps spread to America via the Aleutians, or whether they took a more northerly route I am not going to discuss here, but in view of the striking similarity between the Kamchatkan and Southwest Alaskan types I have no doubt but that Dr. de Laguna, in contrast to Leroi-Gourhan, is right in assuming a direct connection. Their relation to the Dorset lamps seems equally indisputable. How the apparent lack of lamps in the Ipiutaq culture shall be explained must be left to future investigations.

Oval and round *wooden bowls or trays* are evidently very old among the Eskimo. Not only are they used by all modern tribes[7], but recent excavations have proved their occurrence as early as the Ipiutaq and Dorset periods[8]. *Spoons* also belong to the early acquisitions of the Eskimo, for although they are not known from Cook Inlet before the Kachemak III period, spoons are described from Ipiutaq and the "pre-Koniag" horizon of Kodiak[9]. Moreover, they are known from all Eskimo tribes at the present day[10]. The specific Chugach type of mountain-goat horn was, however, an imitation of the Northwest Coast spoon (cf. p. 62). The same applies to some Chugach *ladles*, whereas oval ladles as such are old among the Eskimo[11]. Oval ivory ladles occur from Ipiutaq but were not found in Cook Inlet before the Kachemak II or III stages[12].

Throughout the Eskimo area it is a general feature that *chipping* is the predominant stone technique in the early periods, but even then some implements show signs of polishing at the edges, and in the Neo-Eskimo stages polishing becomes increasingly abundant, till chipping practically disappers[13].

[1] Larsen & Rainey 1948, 110 f, 148.
[2] Larsen 1950, 184.
[3] Giddings 1944, 119.
[4] Leroi-Gourhan 1946, 443.
[5] de Laguna 1947, 254. Cf. de Laguna 1940, 56 ff. The affinity between the oval lamps of the South Alaskan Eskimo, Aleut, Chukchi, Koryak, and Kamchadal was first pointed out by Ukhtomski (1913, 152 ff).
[6] de Laguna 1947, 258.
[7] Birket-Smith 1929, II 58, 140 f. Birket-Smith & de Laguna 1938, 419. Birket-Smith 1945, 239.
[8] Larsen & Rainey 1948, 111. Holtved 1944, I 265, II 53.
[9] de Laguna 1934, 103, 128. Larsen & Rainey 1948, 112. Hrdlička 1944, 334.
[10] Birket-Smith 1929, II 60, 143. Birket-Smith & de Laguna 1938, 421, 516.
[11] Birket-Smith 1929, II 59 f, 142 f. Birket-Smith & de Laguna 1938, 421, 516. Add: Rudenko 1947, 32 (Naukan). Lantis 1946, 215 (Nunivak). Giddings 1944, 119 (Kobuk).
[12] Larsen & Rainey 1948, 112. de Laguna 1934, 103, 123, 125.
[13] Rudenko 1947, *passim*. de Laguna 1934, 69 and *passim*. Hrdlička 1944, 350. Larsen & Rainey 1948, 85, 92 f, 148, 168. Larsen 1950, 181, 184. Rainey 1941, *passim*. Collins 1937, 147. Mathiassen 1929, I 208. Jenness 1925, 432. Giddings 1944, 123 f. Rowley 1940, 495. Wintemberg 1939–40, 89. Leechman 1943, 368 ff. Holtved 1944, II 63.

Hammer stones are present both in Kachemak I, in the "pre-Koniag" period on Kodiak, and in the Dorset culture, wheras they seem to be lacking in Ipiutaq[1]. *Whetstones* are present in all Paleo-Eskimo cultures[2] and are still common right from the Pacific to Greenland[3].

Once I expressed my doubts as to whether the *adze* belonged to the first stages of Eskimo culture, but since then the excavations have fully shown that this view was unjustified[4]. In effect, the small "planing adze" type belongs to the earliest horizons in the American Arctic[5]. The blade may either be fitted into a head which is, in its turn, attached to a handle, or it may be lashed directly to an elbow- or T-shaped shaft. Intermediary heads have not been found during our excavations in Prince William Sound, and this circumstance, together with the somewhat doubtful modern specimen described on p. 73, may indicate that the elbow shaft was the usual type among the Chugach. Information on this kind of hafting has been summarized by Dr. de Laguna, who arrives at the conclusion that not only is it very old among the Eskimo, dating as far back as Kachemak I, Ipiutaq, and Dorset, but it is also the basic form from which the D-shaped and straight adze handles of the southern Northwest Coast and California developed, and it was also found in the archaic cultures of the Northeast[6]. Thus there is every reason to subscribe to her view that "the plain elbow handle for the adz belongs to a very early hunting horizon in the New World".

The *wedge* is another implement of great antiquity among the Eskimo. It occurs from the shores of the Pacific to Greenland as well as in adjacent areas[7] and appears in the earliest phases of Eskimo culture[8]. In Asia we know it from Kamchatka and the Kuriles and probably also from the Siberian and Manchurian Neolithic and from prehistoric sites on Sakhalin and Hokkaidô[9].

The hypothesis set forth on the basis of its distribution that the *hand drill* is an old Eskimo type[10] has been corroborated by the archeological finds. It was used in Kachemak I, Ipiutaq, and Dorset[11], but was forced into the background after the introduction of the strap and bow drills (cf. p. 204).

The widespread "crooked" *whittling knife* is derived from a knife with a stone blade inserted near or at the end of a long handle. Implements of this type, or blades belonging to them, occur in the Ipiutaq and Dorset cultures[12]. It is probably accidental that they have not been found in Cook Inlet till the Kachemak II or sub-III periods[13]. A similar

[1] de Laguna 1934, 59. Hrdlička 1944, 344. Wintemberg 1939–40, 309 f. Holtved 1944, I 246, II 50. Larsen & Rainey 1948, 92.

[2] de Laguna 1934, 62. Larsen & Rainey 1948, 86. Larsen 1950, 181. Leechman 1943, 372. Holtved 1944, I 245, II 50.

[3] Birket-Smith 1929, II 109. Collins 1937, 333. Birket-Smith & de Laguna 1938, 409. Add: Himmelheber 1938, 87. Birket-Smith 1945, 108, 207. Giddings 1944, 119.

[4] Birket-Smith 1929, II 27 ff. Cf. Birket-Smith 1945, 238.

[5] de Laguna 1934, 57. Larsen & Rainey 1948, 85 f. Larsen 1950, 181. Wintemberg 1939–40, 313 f. Jenness 1925, 432. Holtved 1944, I 247, II 50. Meldgaard 1952. 223.

[6] de Laguna 1947, 159 ff. Cf. Birket-Smith & de Laguna 1938, 405 f. The small size of some Chugach adze blades may suggest the use of a separate head, but as nothing is known of their form they must be left out of consideration here.

[7] Birket-Smith 1929, II 114. Birket-Smith & de Laguna 1938, 409. Add: Giddings 1944, 119. Drucker 1943, 55.

[8] de Laguna 1934, 101. Hrdlička 1944, 346. Larsen & Rainey 1948, 87. Holtved 1944, I 249, II 51.

[9] de Laguna 1947, 168.

[10] Birket-Smith 1929, II 109. Birket-Smith 1945, 238 f.

[11] de Laguna 1934, 78. Larsen & Rainey 1948, 148. Larsen 1950, 181. Wintemberg 1939–40, 99. Holtved 1944, I 243 f, II 50.

[12] Larsen & Rainey 1948, 81 f, 99 f. Larsen 1950, 181, 184. Jenness 1925, 432, 434. Rowley 1940, 492. Wintemberg 1939–40, 90 f, 312, 327. Leechman 1943, 370. Holtved 1944, I 235 ff, II 49.

[13] de Laguna 1934, 70.

knife seems to have occurred in the Stone Age of eastern Siberia, China, and Japan[1]. The *splitting knife* or graver should also be included within the Paleo-Eskimo category. It is common among all Eskimo tribes of the present day[2], and while it is unknown in Cook Inlet before the latest period it appears in both the Ipiutaq and Dorset cultures[3].

There can be no doubt that the simple *woman's knife* or *ulo*, with a more or less rectangular or segment-shaped blade, chronologically belongs to the same class as the whittling and splitting knives. It extends back to Kachemak I, Ipiutaq, and Dorset[4], and it is found not only among all Eskimo tribes, but also on the Northwest Coast, the Plateaux of British Columbia, and in the Northeast, where it is especially characteristic of the Laurentian, and it is also known from eastern Asia[5]. Here, however, there is a remarkable gap in the distribution, which has been noticed both by de Laguna and Leroi-Gourhan. "I know of no examples from the northern islands of the Japanese Empire," says the former, "and so conclude that the ulo was an implement characteristic of the prehistoric Japanese proper that did not spread farther north than to the Ainu of northern Honshu"[6]. Her latter statement is not quite correct, for Leroi-Gourhan pictures both prehistoric and modern specimens from Hokkaidô. He believes, however, that they were adopted by the Ainu together with the introduction of millet from the South, their prototypes being the harvest knives of Japan, Korea, and China, whereas the Koryak and Chukchi knives are supposed to be copied from American models[7]. While the first-mentioned assumption sounds probable, it seems wise to await further excavations in Kamchatka and northeastern Siberia, before the question is finally settled. It is well known that certain knife types which may be related to the ulo are found even in Russia and Scandinavia[8].

There is ample evidence that chipped *end scrapers* extend back to the Kachemak I, Ipiutaq, and Dorset periods[9]. They seem to be lacking on the Alaskan Peninsula and the Aleutians, while, on the other hand, they have a wide distribution in Central Alaska, among the Coast and Inland Salish and the Carrier, in Kamchatka, Japan and Mongolia, so there can hardly be any doubt of their antiquity[10]. This is likewise true of the *two-handed leg-bone scraper* with a longitudinal edge (sometimes known as a "beaming tool"), but in other respects there are still unsolved problems connected with this type of implement. Hatt considered it a rather late element in the circumpolar zone, characteristic of the "Inland" or Snowshoe stage[11], and for that reason I suggested that its occurrence among the Eskimo to-day was due to Indian influence[12]. At present I do not feel so confident. Now it appears that this type was known to the Eskimo even in remote times. To be

[1] de Laguna 1947, 180. Leroi-Gourhan 1946, 256 ff.

[2] Birket-Smith 1929, II 106. Add: Birket-Smith 1945, 238. Jenness 1946, 101 (Copper Eskimo).

[3] de Laguna 1934, 70. Larsen & Rainey 1948, 82 ff. Wintemberg 1939–40, 101. Leechman 1943, 371 f. Holtved 1944, II 63. Knuth 1952, 27, 31 fig. 14. Meldgaard 1952, 223, 225 ff.

[4] de Laguna 1934, 74 ff. Larsen & Rainey 1948, 101 f. Larsen 1950, 184. Jenness 1925, 431 fig. 3. Wintemberg 1939–40, 327. Holtved 1944, I 253 ff, II 51. In the Kobuk region it occurs at the Ahteut site contemporaneous with Western Thule (Giddings 1944, 118, 123).

[5] Mathiassen 1927, II 87 ff. Birket-Smith 1929, II 107. de Laguna 1934, 184 f. Birket-Smith & de Laguna 1938, 408. Collins 1937, 350 ff. Add: Rudenko 1947, 29, 51, 62 (C. Dezhnev, Sirenik, Enmylan). Rainey 1941, 506 f, 530 f, 548 (Okvik). Merck 1937, 118 (Aleut). Birket-Smith 1941, 154 f (Kodiak). Birket-Smith 1945, 104, 203 f (Netsilik and Copper Eskimo). Jenness 1946, 80 ff (Copper Eskimo). Drucker 1943, 51 (Northwest Coast). de Laguna 1947, 125 (Tena, "Eskimo").

[6] de Laguna 1947, 185.

[7] Leroi-Gourhan 1946, 313.

[8] Gjessing 1944, 29 ff.

[9] de Laguna 1934, 70, 77. Larsen & Rainey 1948, 108 f. Larsen 1950, 184. Wintemberg 1939–40, 99 f. Leechman 1943, 370, 374. Holtved 1944, I 253 ff, II 51 f. 10, 14. Meldgaard 1952, 223. Knuth 1952, figg. They are also found in the still older Denbigh Flint Complex (Giddings 1951, 195).

[10] de Laguna 1947, 186. Solecki 1950, 156.

[11] Hatt 1916 a, 249. On the distribution of this type outside the Eskimo area cf. Birket-Smith 1929, II 357 f. de Laguna 1947, 190 f. Add: Drucker 1943, 53.

[12] Birket-Smith 1929, II 37.

sure, it is lacking in the early phases of the Kachemak culture, but in the Ipiutaq culture it is far from being uncommon[1]. According to Dr. de Laguna "the Dorset Eskimo made a somewhat similar implement of split antler", but "since one end is often finished off like a blunt knife"[2], I am not convinced that it can be classed with the type in question, as an essential feature of the latter is the two handles which imply a working method fundamentally different from that of the one-handed tool. So far, at least, the Ipiutaq culture is the only Paleo-Eskimo culture in which the use of the two-handed scraper is definitely established. Now the recent discoveries of Helge Larsen have made it clear that even at this early stage the Alaskan Eskimo were influenced by the Snowshoe complex[3], and so it still remains to be settled whether the two-handed scraper was a common Paleo-Eskimo element or perhaps rather a local Ipiutaq loan from the inland which was inherited by the later phases of the Alaskan Eskimo culture and then spread eastwards with the Thule migration[4].

The bone *awl* or bodkin has a very wide distribution indicating a considerable age[5]. Moreover, it is known from the early phases of Eskimo culture[6]. The eyed *sewing needle* likewise belongs to the earliest horizon and is known not only to most modern Eskimo tribes but also from large parts of the North American and Asiatic continents[7]. In spite of the fact that it has not been found in Cook Inlet before the Kachemak III period[8], the simple tubular *needle case* must be included among the Paleo-Eskimo types. Apparently it occurred in the Ipiutaq culture, although it cannot be distinguished with absolute certainty from the bird-bone drinking tube, and it has also been described from the Dorset period[9]. It is, in fact, the prototype from which the more elaborate Eskimo forms developed[10]. This view is further strengthened by the extraordinary wide distribution of the type, which in Europe reaches as far back as the Upper Paleolithic[11].

Concerning the use of *mineral paints*, particularly black and red (hematite), Dr. de Laguna writes: "It is possible that the elaborate painting of the Aleut and Pacific Eskimo and Northwest Coast Indian implements was a development stimulated by the circum-Pacific culture drift, since this art was highly developed in Asia, even as far back as Bronze Age China"[12]. We have previously suggested that painting was not an aboriginal Eskimo feature[13]. I am not quite as certain of this statement now as I used to be. Perhaps the emphasis in the quotation above should be placed upon the word "stimulated", for the use of hematite is, indeed, reported from all early Eskimo cultures[14]. For the same reason we cannot feel sure that the use of red paint among the Caribou Eskimo and on specimens from the early Ahteut site of the Kobuk shall be ascribed to Indian influence as has previously been done[15].

[1] de Laguna 1934, 98 f. Larsen & Rainey 1948, 88 f.
[2] de Laguna 1947, 190.
[3] Cf. Larsen 1951, 85.
[4] Collins 1937, 166. Giddings 1944, 119, 125. Mason 1930, pl. III. Mathiassen 1930, 222 f. Holtved 1944, I 257, II 52.
[5] Mathiassen 1927, II 98. de Laguna 1934, 197. Birket-Smith & de Laguna 1938, 424 f. Add: Rudenko 1947, 21 (Uelen). Birket-Smith 1941, 157 (Kodiak). Birket-Smith 1945, 115 (Netsilik). Jenness 1946, 96 (Copper Eskimo). Drucker 1943, 52 (Northwest Coast). de Laguna 1947, 127, 151 (Prehistoric Tena, "Eskimo").
[6] de Laguna 1934, 95 f. Hrdlička 1944, 347. Larsen & Rainey 1948, 91. Wintemberg 1939–40, 326.
[7] Laughlin & Marsh 1951, 82. de Laguna 1934, 96 f. Hrdlička 1944, 347. Larsen & Rainey 1948, 90. Wintemberg 1939–40, 326. Leechman 1943, 374. Knuth 1952, 27.
[8] de Laguna 1934, 97.
[9] Larsen & Rainey 1948, 90 f. Wintemberg 1939–40, 326. Rowley 1940, fig. 2 a-e.
[10] de Laguna 1932–33, II 101. de Laguna 1934, 198 f. Collins 1937, 354.
[11] Thalbitzer 1924, 285. Birket-Smith 1945, 231 f.
[12] de Laguna 1947, 226.
[13] Birket-Smith & de Laguna 1938, 410.
[14] de Laguna 1934, 118. Larsen & Rainey 1948, 141. Rowley 1940, 495. Leechman 1943, 373.
[15] Birket-Smith 1929, II 39. Giddings 1944, 125.

It is probable that crude *linear designs* and *simple carvings* similar to those of the Early Aleut and Dorset cultures also belong to the Paleo-Eskimo stage. The following designs are important on our material from Prince William Sound: (1) simple bordering lines; (2) short transverse lines; (3) lines with vertical spurs; (4) lines with slanting spurs; (5) lines with alternating spurs on both sides; (6) lines crossed by vertical spurs; (7) crosses; and (8) cross hatching. All of these decorative elements seem to be very old among the Eskimo except the lines with alternating spurs on both sides, which do not occur till the Punuk and Birnirk periods, although a somewhat similar design consisting of a double line with alternating spurs on the outside is known from Ipiutaq and Okvik[1]. Among the Caribou Eskimo incised designs—as, in fact, art on the whole—is virtually absent, only crosses and dot-and-circle decoration being known and the latter, moreover, among the coastal group only[2].

Some Chugach *burial customs* show features which seem to indicate Paleo-Eskimo connections. Simple exposure of the body may be the oldest way of disposing of the dead among the Eskimo. It is still employed by a great number of tribes, including the Caribou Eskimo[3]. It occurred in the Ipiutaq period and may, perhaps, account for the fact that so far no Dorset burials have been encountered. This practice is not known from Prince William Sound, however. On the other hand, inhumation in a wooden coffin or a plank-lined grave, as was common among the Chugach, was also employed by the Ipiutaq people and must, therefore, date back at least to the latter part of the Paleo-Eskimo period. It is suggestive, moreover, that burial masks and artificial eyes were found in Ipiutaq graves[4]. While we have no definite information about burial masks from the Chugach—the fact that masks were found in caves in Prince William Sound is not conclusive, as the circumstances of the find are obscure—we know for certain that they occurred on Kodiak and the Aleutian Islands, and some curious clay "masks" were placed in a double grave in Kachemak Bay[5]. Artificial eyes are known from Cook Inlet and Kodiak[6]. It is not unlikely, therefore, that the use of wooden coffins, death masks, and artificial eyes all belong to a late Paleo-Eskimo burial complex which has more or less survived among the Pacific tribes and the Aleut. The custom of setting up a pole or marking a tree near the grave is, perhaps, another old feature. To be sure, we do not know if this practice was followed by the Ipiutaq people, because all traces of a custom like this must necessarily have disappeared long ago, but the wide distribution, which also includes the Caribou Eskimo, indicates its antiquity[7].

There is no proof of the giving of *grave goods* among the Pacific Eskimo till Kachemak II, but as complete burials from earlier periods have not been found[8], the custom may very well be much older. At any rate it is known from the Ipiutaq culture[9], and it is so universal among most circumpolar tribes that it must belong to the earliest stratum of Eskimo history.

[1] de Laguna 1947, 260 ff.
[2] Birket-Smith 1929, I 254.
[3] Birket-Smith 1929, II 122. Larsen & Rainey 1948, 62.
[4] Larsen & Rainey 1948, 119 ff, 137, 140 f. It seems probable that wooden coffins were used in Kachemak II (de Laguna 1934, 163).
[5] Dall 1878, 5, 28. de Laguna 1934, 43 f. The bone masks described from Port Möller by Weyer (1930, 260) were probably not intended for the dead.
[6] de Laguna 1934, 113. Hrdlička 1944, 150.
[7] de Laguna 1947, 90 f. Cf. Larsen & Rainey 1948, 63. In view of the facts set forth here my earlier hypothesis that the Caribou Eskimo adopted the custom from the Cree must be abandoned (Birket-Smith 1929, II 40 f).
[8] de Laguna 1934, 42.
[9] Larsen & Rainey 1948, 57 ff.

Paleo-Eskimo Elements: Circumstantial Evidence.

In the preceding pages we have discussed a number of Chugach elements which may be described as Paleo-Eskimo for archeological reasons. In the following we shall turn to such traits which seem to belong to the same stratum in spite of the fact that archeological evidence is missing.

In the first place various *hunting methods* should be mentioned. The occurrence of fixed foreshafts for harpoons from Ipiutaq and Dorset[1] would seem to suggest a knowledge of sealing from the ice. The most likely method is the stalking of basking seals (*ūtoq* hunting), which is not only common among all Eskimo but also well known outside the Eskimo area[2]. The age of breathing-hole hunting is more problematic, at least among the Chugach. It may have originated among the Dorset people or the mixed Dorset-Thule population in the central regions and thence spread to the western tribes[3], but we cannot wholly preclude the possibility of Old World origin, since a similar method is known in Scandinavia and probably dates back to the Stone Age[4]. Detachable foreshafts from the Ipiutaq period can only be explained by assuming that seals were also pursued in open water even in Paleo-Eskimo times, and hunting in a disguise of some kind is so widespread among the Eskimo that it also seems to belong to the original features of their culture[5].

Other elements which according to their wide distribution must be included into the Paleo-Eskimo category are the *skin quiver*[6], the *sling*[7], and the *pole snare* for fishing[8]; it is possible that the latter implement was known to the Ipiutaq people[9], and the so-called "sling handles" may, perhaps, in some cases be interpreted as snare rods.

Some methods of preparing food must also be mentioned here, for instance *drying* and *freezing* of meat[10]. *Roasting* on a flat stone is another very old Eskimo manner of cooking[11]. *Stone boiling* is more problematical, and it may seem rash to mention it here, as it is not known among the Eskimo at present except to the Aleut, the Pacific group, and the inland tribes of northern Alaska[12]. The fact that stone boiling must be extremely old in the history of mankind is, of course, no proof that it should also be so among the Eskimo. However, there is some reason for believing that it was employed in the Ipiutaq period[13], and we know that earthenware pots did not appear till immediately before the Neo-Eskimo culture, while the soapstone pots probably originated in the eastern Arctic either in late Dorset times or after the contact between the Dorset and Thule populations had been established[14]. If boiling has been used at all before the introduction of clay and stone pots, stone boiling is the most obvious method. The *putting up of berries and roots with oil* may also be a Paleo-Eskimo recipe, although we cannot quite exclude the possibility that it belongs to the Neo-Eskimo[15].

[1] Larsen & Rainey 1948, 76. Rowley 1940, 492.
[2] Birket-Smith & de Laguna 1938, 434 f, 521.
[3] Birket-Smith 1950, 150.
[4] Clark 1946, 32 ff.
[5] Birket-Smith 1929, II 71.
[6] Birket-Smith 1929, II 64. Add: Birket-Smith 1945, 49 ff, 164 ff (Netsilik and Copper Eskimo).
[7] Birket-Smith 1929, II 61. Add: Lantis 1946, 172 (Nunivak). Birket-Smith 1945, 68 (Netsilik). A sling handle (?) from the Dorset period is described by Holtved (1944, I 217, II 46).
[8] Birket-Smith 1929, II 69 f. Although the pole snare is rare among the Eskimo, a considerable antiquity is indicated by its wide distribution (Birket-Smith 1929, II 159). Add: Haida, Kwakiutl (Drucker 1950, 170. Cf. Rostlund 1952, 194). For birds, small rodents etc. it occurs among the Yurok, Wiyot, Hupa, Chilula, Mattole, Sinkyone, Kato (Driver 1939, 309), Klamath, Modoc, Achomawi, Atsugewi, Wintun, Maidu, Nisenan (Voegelin 1948, 52), Naskapi, Montagnais, Micmac, Penobscot, Algonkin, Ojibwa, Semilkameen, Flathead (Cooper 1938, 18). Some tribes in northwestern California use a "noose slipped over the tail of large fish" (Driver 1939, 313).
[9] Larsen & Rainey 1948, 79.
[10] Cf. Birket-Smith & de Laguna 1938, 443 f.
[11] Birket-Smith 1929, II 105. Cf. de Laguna 1934, 67. de Laguna 1940, 62.
[12] Birket-Smith & de Laguna 1938, 441. Larsen & Rainey 1948, 111.
[13] Larsen & Rainey 1948, 111.
[14] Cf. Birket-Smith 1951, 150.
[15] Birket-Smith & de Laguna 1938, 446.

The one-man *kayak* or baidarka is undoubtedly extremely old. It is found everywhere among the Eskimo, and it seems certain that it was known to both the Ipiutaq and Dorset peoples[1]. While some details in the construction of the South Alaskan type are no doubt due to local specialization, other features must be considered primitive[2]. We have no fragments of *paddles* earlier than the Punuk and Thule periods[3], but judging by their distribution among all modern Eskimo tribes the double paddle is unquestionably as old as the kayak itself[4].

With some hesitation I include the *wooden snowshoe* among the Paleo-Eskimo elements. It is well known, to be sure, that Eskimo culture as a whole is based upon a pre-snowshoe or ice-fishing level, but there is some evidence that the Ipiutaq culture was influenced by the snowshoe complex at an early date (cf. p. 187f). Thus, netted snowshoes from that period have been brought to light at Deering[5]. However, the wooden snowshoe, which occurs sporadically in North America, is evidently older than the netted type[6]. Admittedly this is a poor argument for assuming its presence among the Paleo-Eskimo, but the supposition is to some extent borne out by the fact that it is known not only to the Copper Eskimo but also to the primitive Caribou tribes. At least I dare no longer maintain my former view that the wooden snowshoe of the latter should be regarded as a recent loan from the Cree.

Pack dogs are probably old among the Eskimo, although the use of *pack bags* is limited to Alaska, the central tribes, and Labrador[7]. As regards pack dogs outside the Eskimo area a few additions to the list given before may be cited here[8].

The simple *lean-to* or wind break must be an element of great age among the Eskimo, as it is apparently the prototype of the oldest form of tent[9]. *Unsewn bags*[10], *edge-seamed bags*[11], and *marrow extractors*[12] are all presumably of Paleo-Eskimo origin and widespread among the Eskimo at the present day.

The *shoulder-seam poncho cut* is in itself a basic type in the development of Eskimo costumes, and the lack of a hood may be an especially primitive trait[13], if it has not simply disappeared under the influence of the hoodless coat of small animals' skins. The *combination suit* has a very wide distribution not only among the Eskimo but in the circumpolar zone as a whole[14]. The same applies to the *cap* consisting of one piece of skin[15], the *belt*[16], the *soled boot*[17], and the *boot made of the complete legskin* of a bear[18]. If the description is

[1] Birket-Smith 1929, II 76 ff. Add: Mathiassen 1934, 75. Rainey 1941, 547. Birket-Smith 1941, 147. Birket-Smith 1945, 78 ff, 187 f. Holtved 1944, II 63. Larsen & Rainey 1948, 147.

[2] Birket-Smith 1929, II 78.

[3] Mathiassen 1927, I 316. Collins 1937, 186. I have previously cited a number of examples of double paddles outside the Eskimo area (Birket-Smith 1929, II 74). Since then I have seen double paddles in common use on Basilan, one of the Sulu Islands west of Mindanao.

[4] Birket-Smith 1929, II 79. Add: Birket-Smith 1945, 235. Lantis 1946, 167.

[5] Larsen 1951, 85 ff.

[6] Birket-Smith 1929, II 36 f. Davidson 1937, 139 ff. Birket-Smith & de Laguna 1938, 385.

[7] Birket-Smith 1929, II 76. Add: North Alaska (verbal information from Dr. Helge Larsen). Labrador (specimen in the *Museum für Völkerkunde*, Berlin).

[8] Chilkat (Drucker 1950, 197). Umatilla, Shuswap, Thompson, Kutenai (Ray 1942, 159). Loucheux (Mason 1924, 37). Satudene (recent, Osgood 1933, 50). Slave (recent, Honigmann 1946, 113).

[9] Birket-Smith 1929, II 236, cf. 21 ff. Add: Birket-Smith & de Laguna 1938, 377.

[10] Birket-Smith 1929, II 57. Add: Birket-Smith 1941, 150. Birket-Smith 1945, 100, 201.

[11] Birket-Smith 1929, II 57 f. Add: Birket-Smith 1941, 148 ff. Birket-Smith 1945, 100, 201.

[12] Birket-Smith 1929, II 59. Add: Birket-Smith 1945, 95, 198.

[13] Hatt 1914, 59 f, 62 f, 104, 185. Birket-Smith 1929, II 81, 177 ff. Birket-Smith & de Laguna 1938, 386, 516. Birket-Smith 1945, 219.

[14] Hatt 1914, 208 ff. Birket-Smith 1929, II 92, 184. Add: Geist & Rainey 1936, 14 f. Birket-Smith 1945, 41, 158.

[15] Birket-Smith 1929, II 86, 180 f. Add: Birket-Smith 1945, 150.

[16] Birket-Smith 1929, II 86 f. Add: Birket-Smith 1945, 28 f, 134. Osgood 1937, 47 ff, 52.

[17] Hatt 1914, 179 ff. Hatt 1916, 201. Birket-Smith 1929, II 90. Add: Birket-Smith 1941, 132. Holtved 1944, I 270 f, II 54. Birket-Smith 1945, 32, 147 f.

[18] A similar, extremely primitive type is described from the Patagonians by Musters 1873, 170.

correct of the Chugach *mitten* as having a thumb made of a separate piece of skin, it is extremely interesting to find it among the Pacific tribes, as its distribution is otherwise limited to the eastern region; it seems to be an older type than the ordinary western mitten on which the underside of the thumb is cut out of the same piece as the distal part of the palm and may therefore be considered a Paleo-Eskimo element[1].

The wide distribution of the *back scratcher* indicates a similar origin[2]. *Tattooing* performed by pricking is apparently an older method than needle-and-thread tattooing[3]. Tattooing was known to the Ipiutaq Eskimo, but of course nothing can be said of the method employed[4]. On the basis of the dots seen on the faces of Okvik figurines, Rainey has suggested that the pricking method was in use at that period[5], but, however probable this may be, the evidence is hardly conclusive. There can be no doubt that both *ear ornaments* and *necklaces* are old among the Eskimo, but the specific types of the Chugach point to Northwest Coast influence (cf. p. 69 f).

Within the sphere of technology such wood-working methods as *scarfing*, simple *mortising* and *bending* of wood and antler by means of steam or hot water are all widespread and probably dating back to the Paleo-Eskimo period[6], as is likewise the case of the common methods of sewing, *i. e. casting*, *running stitch*, and *"blind stitch"*[7]. No doubt the use of *sinew thread*[8] and *skin thongs*[9] may also be included. Needless to say, both hairy and depilated skins are generally employed by all Eskimo, but whereas *dehairing by means of hot water* is an old and probably Paleo-Eskimo method[10], soaking in urine for the same purpose is evidently a later intrusion (cf. p. 203).

Figurines are known from early periods of Eskimo prehistory[11], but it is impossible, of course, to arrive at any definite conclusions regarding their use. On the other hand, *dolls* are known from all parts of the Eskimo area and thus apparently of great age[12]. The same thing applies to the occurrence of *dice*. What seems to be gambling bones made of seal phalanges were found in Dorset sites[13], but otherwise the antiquity of the game must be inferred from its wide distribution in modern times[14]. The *top* does not appear in the excavations before the Neo-Eskimo period[15], but the general distribution of this toy among the modern Eskimo as well as in the circumpolar zone as a whole can probably be taken as evidence of its great age[16]. Both the *bull roarer* and the *buzz* are evidently also Paleo-Eskimo[17], as are several kinds of pastimes and sports as for instance *cat's cradle*[18],

[1] Birket-Smith 1929, II 87.

[2] Birket-Smith 1929, II 96. Add: Birket-Smith 1945, 227.

[3] Birket-Smith 1929, II 96. Cf. Birket-Smith & de Laguna 1938, 401. Add: Birket-Smith 1945, 45 f.

[4] Larsen & Rainey 1948, 116 f.

[5] Rainey 1941, 551.

[6] Birket-Smith 1929, II 115.

[7] Hatt 1914, 43 ff. Birket-Smith 1929, II 117. The two first mentioned methods are known archeologically from the Thule period (Mathiassen 1927, I 184).

[8] Hatt 1914, 41 ff. Birket-Smith 1929, II 114 f.

[9] Birket-Smith & de Laguna 1938, 424.

[10] Birket-Smith 1929, II 116. Birket-Smith 1945, 242.

[11] de Laguna 1934, 115 (Kachemak II). Rainey 1941, 551 (Okvik). Collins 1937, 178 (Old Bering Sea). Holtved 1944, I 279, II 56 f (Dorset).

[12] Birket-Smith 1929, II 120. Add: Himmelheber 1938, 49 f. Birket-Smith 1941, 159. Birket-Smith 1945, 122, 213 f. Lantis 1946, 215.

[13] Holtved 1944, I 279, II 56.

[14] Birket-Smith 1929, II 120. Birket-Smith & de Laguna 1938, 483 f. Add: Birket-Smith 1945, 121. Dice are expressly stated to be unknown on Nunivak (Lantis 1946, 216).

[15] de Laguna 1934, 104 (Kachemak III). Collins 1937, 178 (Old Bering Sea). Mathiassen 1927, I 188. Holtved 1944, I 282, II 56 (Thule).

[16] Birket-Smith 1929, II 121. de Laguna 1934, 207. Birket-Smith & de Laguna 1938, 480, 516. Add: Birket-Smith 1945, 122 (Netsilik). Lantis 1946, 216 (Nunivak). de Laguna 1947, 221.

[17] Birket-Smith 1929, II 120 f. Birket-Smith & de Laguna 1938, 481, 517. Add: Birket-Smith 1945, 243 f. Lantis 1946, 216 (Nunivak).

[18] Birket-Smith 1929, II 120. Jenness 1924. Paterson 1949. Birket-Smith & de Laguna 1938, 481. Add: Rasmussen 1931, 520 (Netsilik). Lantis 1946, 217 ff (Nunivak).

hand game (? cf. p. 224)[1], *juggling* with pebbles[2], *wrestling* and other trials of strength[3], and *skipping*[4].

The tambourine *drum* is a common Eskimo instrument and undoubtedly very old, although we have no archeological evidence of its occurrence before the Kachemak III, Okvik, and Old Bering Sea periods[5]. It is a unique feature that the handle of the Chugach drum continued across the back of the rim. To be sure, the same characteristic is found in a single specimen from West Greenland, now in the National Museum, Copenhagen, but as it seems to be a rather modern piece which was never intended for use, and all other West Greenland drums, including some from the 18th century, have short handles only, it is impossible to draw any conclusions on this basis.

The fundamentals of Chugach social organization are so simple and widespread among all Eskimo tribes that it seems safe to infer their Paleo-Eskimo origin. Needless to say *marriage*, primarily in the form of monogamy with a more or less pronounced inclination towards polygyny, is found everywhere, while the *levirate* is also common, although it has nowhere developed into a regular institution[6]. The *kinship system* is typically Eskimo (cf. p. 82 f). Freedom for anybody in *exploiting the hunting possibilities* within the tribal boundaries is a common right not only among the Eskimo but among many other tribes in the circumpolar regions[7]. It has been pointed out on a previous occasion that this lack of individual ownership as regards hunting grounds has a geographical distribution that almost coincides with the custom of issuing *meat presents* to the fellow villagers and of *dividing the game* according to fixed rules; this semi-communistic attitude towards the spoils is probably another old culture element[8]. The custom of allotting the *game to the hunter who inflicts the first wound*, disregarding the person who actually kills it, may likewise be a very old trait, as it has been reported from many Eskimo tribes as far away as Greenland and is also known from the Eyak and Tlingit[9]. *Blood revenge* is known from all Eskimo and may be considered a semi-sacred duty[10] which, like the general Eskimo attitude towards maintaining peace in the village, dates back to the early periods of Eskimo life.

Naming for a deceased person is widespread among the Eskimo and is also common on the Northwest Coast, the Northern Plateaux, and in northeastern Asia[11]. It is, therefore, evidently an old custom. *Nose rubbing* as a caress is so well known not only among the Eskimo but apparently throughout the circumpolar zone[12] that we are probably entitled to include it among the Paleo-Eskimo elements, too.

The religious concepts of the Chugach are basically the same as those found all over

[1] Birket-Smith 1929, II 120, 203 f. Birket-Smith & de Laguna 1938, 481, 517. Absent on Nunivak (Lantis 1946, 216).

[2] Birket-Smith 1929, II 119. Add: Birket-Smith 1945, 125 (Netsilik). Lantis 1946, 215 (Nunivak).

[3] Birket-Smith 1929, II 119. Birket-Smith & de Laguna 1938, 482 f, 517. Add: Birket-Smith 1945, 120 (Netsilik).

[4] Birket-Smith 1929, II 120. Add: Rasmussen 1931, 358, 520. Birket-Smith 1945, 120 (Netsilik).

[5] Birket-Smith 1929, II 117. Birket-Smith & de Laguna 1938, 476. de Laguna 1934, 104, Rainey 1941, 517. Collins 1937, 174. Rudenko 1947, 32, 35, 38. Giddings 1944, 119.

[6] Cf. Birket-Smith & de Laguna 1938, 456 f.

[7] Birket-Smith & de Laguna 1938, 461 f. Cf. Weyer 1932, 173 ff.

[8] Birket-Smith & de Laguna 1938, 462.

[9] Birket-Smith & de Laguna 1938, 463.

[10] Cf. Weyer 1932, 220 f.

[11] Birket-Smith & de Laguna 1938, 468 f.

[12] Bering Strait (Beechey 1831, I 345 f. Thornton 1931, 61). Asiatic Eskimo (Chamisso 1842, 121. Beechey 1831, I 332. Moore 1923, 263). Colville Eskimo (Miertsching 1860, 33). Point Barrow (M'Clure 1856, 61. Hooper 1853, 225. Murdoch 1892, 437). Mackenzie Eskimo (Petitot 1887, 58). Netsilik (Amundsen 1907, 223). Caribou Eskimo (Personal observation). Southampton Island (Mathiassen 1927, I 283). Iglulik (Boas 1907, 468). Baffin Island (Boas 1888, 609). West Greenland (Birket-Smith 1924, 393). Northern Athapaskans (Petitot 1887, 58). Chukchi (Bogoras 1904–09, 38). Yukagir (Jochelson 1926, 24). The same custom occurs e. g. among the Samoyed and Lapps.

the Eskimo world. This holds good of the belief in *souls* of human beings and animals and in spiritual "*owners*". The same ideas are widely known in adjacent regions[1]. The Owners of the Air or the Universe (Tlam-shua) and of the Sea (Imam-shua) are known everywhere among the Eskimo[2], and the corresponding idea of an Owner of the Land (Nunam-shua) is the outcome of a parallel development based upon the same foundation. *Giants* and *dwarfs* appear frequently in Eskimo folk tales and need not be discussed further here. The idea of *split persons, i. e.* beings of human appearance divided lengthwise, with one arm, one leg, etc. is less common but is nevertheless known both from Kodiak, Nunivak and as far away as Labrador and Greenland[3]. On the other hand we have no reports from the central tribes. This might suggest a Neo-Eskimo origin of this conception, but it prevails over so large areas in North America and the Old World that it should rather be considered a very old idea[4].

Chugach *shamanism*, including the belief in special spirit helpers, is very much the same as that of other Eskimo, nor does it differ essentially from the shamanistic practice in great parts of North America[5]. The belief in *witchcraft* is so widespread and apparently old among the Eskimo that we need not enter into details here. Equally common among the Eskimo as well as among the Indians of the Boreal Woodlands, the Northwest Coast, and California is the view that disease is caused by sorcery[6]. Unfortunately, we have no information whether another and probably also very old Eskimo conception of disease, *viz.* that it may be due to the loss of the soul, occurred among the Chugach. The *placing of a part of the game in some special place*, as practised by the Chugach in the case of the bones or skulls of bear, sea otter, and mountain goat, prevails over large areas in the circumpolar zone and has in some regions been included into the elaborate bear ceremonial complex, but is probably much older than the latter, perhaps even dating back to the Paleolithic[7].

Taboos vary more or less in different parts of the Eskimo area, but in most cases, as among the Chugach, they tend to keep sea and land animals apart, refrain from certain foods or from work in connection with child birth, menstruation, death, the killing of the first game, manslaughter, and the passing of dangerous places; seasonal taboos concerning various species of game are equally widespread, and there can scarcely be any doubt as to the antiquity of the basic ideas[8]. The same thing we can state safely concerning the use of *amulets* and *charms* in general, although the Chugach belief, at least according to the ideas prevailing in our days, emphasizes the purely magic nature of the amulets in contradistinction to that of the Central Eskimo which stresses the mystic relation between man and his amulets.

Neo-Eskimo Elements.

Archeologically the Neo-Eskimo complex is characterized by whaling by means of harpoons and floats, nets for sealing and fishing, abundant use of baleen for implements of all kinds, polished slate tools, and pottery. In addition, however, the distribution of several other traits seems to indicate a similar origin.

[1] Birket-Smith & de Laguna 1938, 504 f.
[2] Cf. Thalbitzer 1928, 383 ff.
[3] West Greenland (P. Egede 1788, 172 f. Glahn 1771, 350 f). Labrador (Charlevoix 1744, I 17). Nunivak (Lantis 1946, 198). Kodiak (Golder 1903, 21 ff).
[4] Hatt 1949, 87 ff. Stith Thompson 1929, 357. Add: Osgood 1937, 171 (Tanaina).
[5] Birket-Smith & de Laguna 1938, 498 ff. Park 1938, 76 ff.
[6] Clement 1932, 193 ff. Add: Birket-Smith & de Laguna 1938, 207 (Eyak).
[7] Birket-Smith & de Laguna 1938, 486 ff. Cf. Gahs 1928, 261 ff.
[8] Cf. Weyer 1932, 367 ff *& passim*. Lantis 1947, 1 ff.

In spite of the papers of Lantis and Heizer the history of *whaling* is still obscure, and the description of harpoon whaling from the Chugach tends to make the problem still more complicated. Previously, this method has not been reported from regions south of Saint Lawrence Island and Norton Sound[1]. On Nunivak the bowhead is not hunted at all[2], and apparently the big whales keep away from the shallow waters off the Yukon-Kuskokwim delta and in Bristol Bay. On the Aleutians and the Pacific coast the typical hunting method was by means of lances with poisoned slate heads. How, then, is the statement of our informant to be understood? There is no reason for suspecting him of lying deliberately, as in all respects he was a trustworthy and reliable man, and the possibility that the method was introduced by the Russians seems to be out of question (cf. p. 36 f). Dr. Helge Larsen tells me that according to information from the Eskimo at Naknek on the southern shore of Bristol Bay, an immigration from Diomede Island had taken place there about a generation ago, but this is, of course, far too late to come into consideration here, and moreover nothing indicates that immigrations of this kind ever extended as far as the Pacific coast.

Under these circumstances it will be necessary to study the occurrence of harpoon whaling outside the Eskimo area. We may leave out of account the whaling of the Cree, which is a late loan from the Eskimo[3]. On the other hand it was old on the southern part of the Northwest Coast, where it was practised with harpoons having a toggle head of bone with a blade of shell of a type somewhat like the Dorset heads, and a float of an inflated sealskin[4]. The tribes in question were the Nootka, Makah, Quileute, and Quinault[5]. Whales were also, though rarely, hunted by the eastern Sanetch and the Klallam, the latter using a two-pronged toggle harpoon without a float[6]. It is doubtful, on the other hand, whether whaling was ever carried out by the Chinook[7]. Among the first-mentioned tribes it seems to be deeply rooted in the general culture pattern. It is true that the peculiar whaling rites are supposed to have been introduced among the Quileute as late as the middle of the 19th century when they were copied from the Makah,[8] but it will be shown later that these rites probably did not belong to the harpoon-whaling complex (cf. p. 210).

Is it possible, now, to establish any connection between Eskimo and Northwest Coast Indian whaling? Both methods and hunting gear are the same, but the gap between the two distribution areas is considerable. The intervening region is the seat of the highest form of Northwest Coast culture, whereas the tribes of southern British Columbia and Washington have remained on a lower level in arts as well as in social organization. This might perhaps indicate that harpoon whaling belonged to an earlier culture pattern that had subsequently disappeared farther north, and the question is, therefore, if survivals of whaling can be discovered there[9]. To von Langsdorff we owe the observation, later on repeated by Holmberg, that the Tlingit abhor whale meat "*wie die Juden das Schweinefleisch*", with the important exception, however, of the Yakutat, the northernmost Tlingit

[1] Cf. Nelson 1899, 165.
[2] Lantis 1946, 158.
[3] Skinner 1911, 27. Cf. Turner 1894, 182 f.
[4] Mason 1902, 226 ff.
[5] Nootka (Cook & King 1785, II 328 f. Meares 1790, 258 ff. Sproat 1868, 228. Jewitt 1896, 122 f. Fleurieu, an vi, II 225 f. Drucker 1950, 172 f. Drucker 1951, 48 ff). Makah (Kane 1863, 174 f. Gibbs 1877, 175, 196. Waterman 1920, 29 ff). Quileute (Gibbs 1877, 195. Frachtenberg 1920. Reagan 1925, 25 ff). Quinault (Olson 1936, 44 ff).
[6] Barnett 1939, 233. Gunther 1927, 204.
[7] Cf. Ray 1938, 114.
[8] Frachtenberg 1920, 322.
[9] Lantis (1938, 448) suggests that the reason why whaling is lacking on the northern Northwest Coast may be that the tribes here were originally inland people. This may apply to the Tsimshian but hardly to the Tlingit and Haida.

tribe[1]. Contrary to this Krause found "*dass die Chutsinus* [*i. e.* the inhabitants of Hutsunuwu, a village on Admiralty Inlet] *sehr begierig waren, sich Fettstücke von einem durch die Weissen gefangenen Wale anzueigen*":[2] In the same context Krause refers to a statement of Tlingit whaling in the description of Franchère's voyage. As Krause's translation is not quite correct I prefer to give the text *verbatim*[6] "*Ils n'ont pas changé l'instrument dont ils s'arment pour la pêche de la Baleine: cet instrument est un harpon d'os, barbelé, et emmanché d'une longue perche. Forts de cette arme, qu'ils manient avec une adresse extrême, deux Tchinkîtânéens* [*i. e.* Tlingit at Norfolk Sound] *attaquent hardiment le Cétacée. Quand ils sont parvenus près de l'endroit où ils l'ont vu plonger pour la dernière fois, ils ralentissent la marche de leur pirogue, jouent, pour ainsi dire, avec leurs pagaies à la surface de l'eau: et dès qu'il reparoît, le Harponneur saisit son harpon, et pousse au monstre. Le dard lancé ne manque jamais, suivant leur rapport, de se faire jour, par un des yeux, dans l'intérieur de la tête et bientôt l'animal est sans vie*"[3]. It is clear that Franchère did not witness the hunt personally, but his description leaves no doubt that to some extent harpoon whaling was practised by the Tlingit in the latter part of the 18th century. Heizer believes that they had learned it from the Russians[4], but this is extremely improbable. When Franchère visited Norfolk Sound (1791), the Russian colonization did not extend east of Prince William Sound, and the relations to the Tlingit were exceedingly hostile. Not till 1796 was an abortive attempt made to establish an agricultural settlement at Yakutat, and Sitka was not founded till 1799[5]. Moreover, the Russians were here more interested in furs than in whaling.

We have no evidence of harpoon whaling from the Haida and Tsimshian, but they have no objection against utilizing the meat and blubber of stranded whales, and the same thing was told by the Eyak[6]. There are traditions of old-time whaling with harpoons and floats from the Kwakiutl[7], and it should be borne in mind that sealing with harpoons and floats was common among many Northwest Coast tribes. Everything considered it does not seem unlikely that harpoon whaling extended over the entire northern Northwest Coast at some time in the past.

We still have to answer the question whether it was also known in the area between the typical Northwest Coast tribes and the Eskimo of North Alaska, *i. e.* among the Pacific Eskimo and the Aleut. From the former there is, to my knowledge, no other evidence than the information obtained by us from the Chugach. No whaling harpoon heads were found in Prince William Sound, but this may well be due to the recent sinking of the shore line by which all traces of early occupation were obliterated. More to the point is the fact that neither de Laguna nor Hrdlička mention such heads from Cook Inlet and Kodiak, but the finds from the lower levels where harpoons of this kind might be expected are so meagre and, as far as the Kodiak material is concerned, so inadequately described[8] that we should not attach too much importance to this circumstance. Wrangell states of the Aleut of Atka and the islands still farther west that they did not hunt whales before they were instructed to do so by the Kodiak Eskimo in 1832[9], but Heizer calls attention

[1] Langsdorff 1812, II 112. Holmberg 1856, 303 f. Dall 1877, 36 f.
[2] Krause 1885, 181.
[3] Fleurieu, an vi, II 67.
[4] Heizer 1943, 448.
[5] Bancroft 1890, 356 f, 386.
[6] Drucker 1950, 173. Birket-Smith & de Laguna 1938, 107.
[7] Drucker 1950, 172 f. Lantis 1938, 448 quoting E. S. Curtis: The North American Indian, X 29, 283 ff. Curtis's work has not been accessible to me.
[8] de Laguna 1934. Hrdlička 1944. The Tanaina of Cook Inlet do not hunt large whales but only white whales, which are killed by means of bladder darts (Wrangell 1839, 113).
[9] Wrangell 1939, 53 footnote.

to the fact that Jochelson has illustrated chipped stone blades from Attu and Atka which he believes to be dart points for whaling, and, granting the correctness of his view, this indicates that whaling was once known also in the western part of the Aleutian island chain[1]. In fact, Jochelson also figures some toggle heads from Attu and Umnak[2] which, from their size, must probably have belonged to whaling harpoons, thus suggesting that harpoon whaling did occur both on the western and eastern groups before the introduction of the historic poisoned-lance method[3]. A similar change may very well have taken place in southwestern Alaska. As poisoned-lance whaling is an Old World trait it is, indeed, significant that recollections of the old-fashioned harpooning method seem to survive in Prince William Sound only, *i. e.* in the region most remote from the Asiatic coast.

West of Bering Strait we find another area where whaling by means of harpoons occur. The Chukchi methods are identical with those of the North Alaskan Eskimo[4], whereas the Koryak use a toggle harpoon without a float[5]. Both the Gilyak and the Ainu pursue the white whale in the same way, but here harpoon hunting of the larger species is apparently unknown[6]. Japanese whaling offers several obscure points. In recent times nets were generally employed, but it is also known that harpoons were used[7]. Heizer, however, concludes that "the Dutch (e. g. Vries in 1643) may possibly have introduced whaling into Japan, judging not only from the method of capture but the use of windlasses, etc., and oil rendering", while at the same time he admits that "although Buddhist priests and prayers enter whaling . . . . there is a strong suspicion of an older stratum of esoteric accompaniments to whaling"[8]. Here again it must be remembered that esoteric rules were apparently foreign to harpoon whaling and cannot be taken as a proof of the antiquity of this method. Unfortunately, Japanese prehistory does not help to elucidate the problem. Toggle harpoons strongly reminiscent of Ipiutaq types occur in Japanese Stone Age finds, but their size indicate that they were used for sealing only. A mouthpiece tentatively attributed to a float is extremely doubtful[9], and even in case the interpretation be correct it may have belonged to a sealing equipment just as well as to a whaling outfit.

Leaving the highly questionable occurrence of Japanese harpoon whaling in pre-European times out of consideration we arrive at the conclusion that the fully developed method was known only to the Chukchi, whereas it was less complete among the Koryak, Gilyak and Ainu, neither of whom used a float. Besides, the two latter tribes rarely captured whales except the smaller species. This might suggest a decreasing influence from the north, and it would be tempting to ascribe the invention of harpoon whaling to the Neo-Eskimo of the Bering Sea region. But this view is hardly permissible since similar methods were known in the North Atlantic waters of Europe from very remote times.

[1] Heizer 1943, 429 note 25.

[2] Jochelson 1925, pl. 27.

[3] Here, we may quote the following passage from Lutké (1835, I 178), who writes about the Aleut colonists transferred by the Russians to Sitka in the early years of the 19th century: "*Il arrive quelquefois que les Aléoutes prennent la baleine de vive force en la combattant à coupe de flèches, auxquelles sont attachées des vessies avec des cordes faites de nerfs de baleine.*" I dare not attach too much weight to this statement, however, because the *flèches* referred to may be bladder darts, and because there is question of a post-Russian method.

[4] Kracheninnikov 1770, II 213. Steller 1774, 101. Nordenskiöld 1880–81, II 113. Bogoras 1904–09, 124. Heizer (1943, 427 note 24 a) suggests that the float is a (recent?) loan from the Eskimo. This may be true, but his evidence is hardly conclusive.

[5] Jochelson 1905–08, 551 f.

[6] Schrenk 1881–95, III 548. A typical toggle head is figured in Siebold 1897, II 246 fig. 36.

[7] Kämpfer (1777, 150 f) says that whales were hunted with "*Wurfpfeile wie in Grönland*" *i. e.* harpoons, while whaling nets were invented in 1680. This agrees fairly well with Tsuchiya (1937, 171) who says: "At first harpoons were used, but from the Kammon era (1661–1673) onwards they were superseded by nets."

[8] Heizer 1943, 422 ff, footnote 17. For magic rites connected with whaling cf. Möbius 1893, 1056.

[9] Munro 1911, 141 f. Schnell 1932, 34.

It is outside the scope of this work to trace the history of European harpoon whaling in details, but a few particulars should be brought to light.

Our earliest source of information about whaling is Ottar, the Norwegian traveller, who mentions it in the famous account of his voyage to the north in the latter part of the 9th century A.D., but he does not allude to the method employed. On the other hand, what seems to be a rather fantastic description of harpoon whaling (without a float), as it was carried out by the Norwegian settlers in Ireland, is given in the work of the Spanish-Arabic author Qaswînî, whose account is based upon the still older work of 'Umar al-'Udhrî from the 11th century[1]. Nansen is of opinion that harpoon whaling originated in Norway, whence it was brought to Ireland and Normandy; the Norsemen in Ireland are supposed to have been the teachers of the Basques, while their countrymen in Normandy transferred the art to the Dutch and British[2]. There can be no doubt that whaling is old in Norway. Gutorm Gjessing traces it back to the Stone Age. There are many whale bones and implements made of this material in the finds from that period, and among the Norwegian rock carvings we find no less than twenty representations of whales. On the other hand the size of the harpoon heads indicates that it was the smaller species such as porpoises, blackfish, etc. which were the objects of the hunt[3], nor is there any evidence of the use of floats. Gjessing furthermore cites Pokorny to the effect that whaling was known in Ireland in pre-Celtic times[4]. In this respect I cannot agree with him, however. Pokorny does not mention whaling but confines himself to the observation that in the Irish myths we find allusions to skin boats and to harpoons with floats and throwing boards from the pre-Celtic inhabitants of the island, the so-called Fir Bolg or "skin-boat people"[5]. I am not in the position to judge the validity of Pokorny's evidence, but at all events it may refer to sealing just as well as to whaling. Under these circumstances we can summarize as follows: (1) harpoon whaling was known in Ireland in the early Middle Ages; (2) floats were probably known in the same place even earlier, but whether they were used for whaling or for sealing remains an open question; (3) hunting of small whales dates back to the Norwegian Stone Age. This may well be characterized as a rather meagre result of our investigation. Nevertheless there are so many other points of resemblance between the Eurasian Neolithic and the Eskimo culture, particularly its Neo-Eskimo stage, that a connection between North Atlantic and Eskimo harpoon whaling cannot be dismissed off-hand as improbable. The whale hunting rites will be discussed later (p. 210).

The *baidar* or umiaq is closely afiliated to the whale hunt and a typical Neo-Eskimo culture element. It occurred as early as in the Okvik phase and spread to the eastern Arctic together with the Thule culture[6]. Whereas true umiaqs are confined to the Eskimo and the adjacent tribes of northeastern Asia—Chukchi and Koryak—open skin boats of more primitive types are widespread both in the circumpolar zone and in other areas[7]. At present, at any rate, the *sail* is known wherever the umiaq is found; in contradistinction to the skin boat it also occurs on the Northwest Coast, but it is difficult to decide if it

[1] Nansen 1911, II 156 f.
[2] Nansen 1911, II 159 ff.
[3] Gjessing 1944, 16 ff. Gjessing 1945, 196, 236, 245 f. Even in the Kjelmøy find from the Norwegian Iron Age there were only few bones of large whales, whereas bones of seals and porpoises were common (Solberg 1909, 22). On evidence of whaling in prehistoric Europe cf. Clark 1947.
[4] Gjessing 1945, 243.
[5] Pokorny 1925, 142.
[6] Mathiassen 1927, II 64. Rainey 1941, 547.
[7] Birket-Smith 1929, II 172 f. Birket-Smith & de Laguna 1938, 380 f. Gjessing 1944, 13 ff. Eskimo umiaqs were occasionally traded to the Tlingit, among whom they were observed by Malaspina (1849, 288) and La Pérouse (1797, 208).

is post-European there[1]. The *sea-mammal drive* and the *club* for killing seal or fish are other Neo-Eskimo elements which are found along the Northwest Coast and, as far as the latter is concerned, on the northern Plateaux as well as in the Mackenzie area and northeastern Asia[2].

Arrow feathering consisting of three radial feather vanes may possibly be Neo-Eskimo[3]. It is common throughout the greater part of western and northern North America: among the western and central Eskimo, in the Mackenzie area, and on the Northwest Coast and the Plateaux[4]. The Asiatic distribution is so well known that it needs no further documentation.

Simple *gorges* for catching sea birds and fish go back to the Paleo-Eskimo period[5], whereas the Chugach type, having a pointed cross piece placed at an acute angle to the stem, is a specialized form which probably belongs to the Neo-Eskimo stage[6]. Giddings reports the find at the Ambler site on the Kobuk (18th century) of a bird gorge, but it does not appear from the description whether it had a cross piece[7]. Simple gorges are used by many Indian tribes, but I know of no instance of the specialized type outside the Eskimo area unless the bird hooks of the Coeur d'Alêne and the Kamchadal may be related to it[8].

While large fishing nets were said to have been introduced among the Chugach in recent times, *nets for catching cormorants* were commonly used formerly, and *dip nets* were used for taking salmon in the creeks. In his fundamental work on the archeology of the Central Eskimo Mathiassen was unable to solve the problem of the origin of Eskimo nets, although a large fragment of a baleen net was found at the Thule site of Mitimatalik in northern Baffin Island[9]. Later, he also found a part of a sealing net at Igdlutalik in Disko Bay, West Greenland, probably dating from the 16th century, and therefore concluded that while fishing nets were aboriginal in the Eskimo culture, nets for sealing were among the elements which the Greenlanders acquired from the Norsemen[10]. I have some doubt as to the correctness of this view; at least so much is certain that there is now evidence of the use of (fishing?) nets even prior to the Thule period, *i. e.* in the Old Bering Sea and Punuk phases[11]. The dip net has the marginal distribution characteristic of the Neo-Eskimo traits and is, moreover, found over large parts of northwestern North America[12]. Fowling nets are far more scarce among the Eskimo, the only places from where they have been reported being Nunivak, Bering Strait, the Colville district, and West Green-

[1] Birket-Smith & de Laguna 1938, 381 f.

[2] Birket-Smith & de Laguna 1938, 433, 435 f. For the distribution of the club add: General (Rostlund 1952, 192 f). Bella Coola, Bella Bella, Nootka (Drucker 1950, 172). Comox, Pentlatch, Nanaimo, Sanetch (Barrett 1937, 233). Quinault (Olson 1936, 48 f). Chinook (Ray 1942, 118). Tolowa (Drucker 1937, 237 f). Yurok, Wiyot, Mattole, Sinkyone, Yuki (Driver 1939, 314).

[3] Birket-Smith 1929, II 23 f.

[4] Birket-Smith & de Laguna 1938, 432 f. Add: Slave (Honigmann 1946, 55). Ingalik (Osgood 1940, 203 f). Chilkat, Haida "sometimes", Tsimshian, Kwakiutl, Nootka (Drucker 1950, 185). Tillamook, Alsea, Siuslaw, Coos, Sixes, Tututni, Galice, Chatco, Tolowa (Barrett 1937, 169). Chimariko, Karok, Wiyot, Chilula, Nongatl, Mattole, Sinkyone (Driver 1939, 326). Klamath, Modoc, Shasta, Achomawi, Atsugewi, Wintun, Maidu, Nisenan (Voegelin 1942, 72). Chilcotin, Kutenai, Flathead, Lillooet, Kalispel, Sanpoil, Wenatchi, Kittitas, Umatilla, Klikitat (Ray 1942, 150). Ute, Goshute (Stewart 1942, 268).

[5] Birket-Smith 1929, II 26. Larsen & Rainey 1948, 78.

[6] Mathiassen 1927, II 55. Holtved 1944, I 220, II 47.

[7] Giddings 1944, 119.

[8] Teit 1930, 104. Steller 1774, 183.

[9] Mathiassen 1927, II 58 f.

[10] Mathiassen 1934, 96 f.

[11] Collins 1937, 175, 226 f. On fish nets in North America cf. Rostlund 1952, 81 ff, 162 ff.

[12] Birket-Smith & de Laguna 1938, 436 ff. Add: Nootka (Drucker 1950, 169). Tolowa, Chimariko, Karok, Wiyot, Chilula, Nongatl, Mattole, Sinkyone, Kato, Yuki (Driver 1939, 312). Chinook, Klikitat, Tenino, Umatilla, Kittitas, Wenatchi, Lillooet, Chilcotin, Carrier (Ray 1942, 109). Modoc, Shasta, Achomawi, Wintun, Maidu, Nisenan (Voegelin 1942, 55). Cf. Rostlund 1952, 86 f, 164 ff.

land[1]. Among the Indians they are far more common. They are known from the southern part of the Northwest Coast as far south as northern California, in the Plateaux area and the Great Basin[2]. It is open to doubt whether they occurred among the Ingalik and Dogrib[3], and they are not mentioned from other tribes in the Mackenzie region. On the other hand they were used by several tribes in northeastern Asia[4].

A conical *fish trap* made of baleen was known during the Thule period and was used until recently by the Iglulik Eskimo[5]. The Copper Eskimo have a similar device made of willow branches[6], but otherwise the distribution of the fish trap is limited to the marginal regions of the Eskimo area, and besides it is common on the Northwest Coast and the Plateaux as well as in Northeast Asia[7].

Also the *gaff hook* has its main distribution among the Eskimo in the peripheral regions[8]. It is true that it is common among the Copper Eskimo, but within the Netsilik group it occurs among the Utkuhigjalingmiut only[9], and the Caribou Eskimo do not use it at all, nor is it described from the inland bands of northern Alaska. Unfortunately, it has not been identified in archeological finds, but the recent distribution may suffice to include it, though with some hesitation, among the Neo-Eskimo types. Outside the Eskimo area it is common throughout the Northwest Coast and far into California[10]. In the Plateaux and Mackenzie areas gaff hooks are mainly employed for hunting deer and beaver, though sometimes for fishing, too[11]. It occurs also in Northeast Asia among the Chukchi and, in a more specialized form with a movable head, among the Koryak, Gilyak, and Ainu[12].

Snares attached radially to a float or a stick for catching diving birds are characteristic

[1] Lantis 1946, 172 f. Nelson 1890, 132 f. Stefánsson 1914, 388. Birket-Smith 1924, 358.

[2] Kwakiutl (Drucker 1950, 175). Nootka (Kane 1863, 177. Sproat 1868, 224. Jewitt 1896, 208. Drucker 1951, 34). Comox, Nanaimo, Cowichan, Sanetch (Barnett 1939, 231). Puget Sound (Haeberlin & Gunther 1930, 25). Klallam (Gunther 1927, 205). Quinault (Olson 1936, 49 f). Klamath (Spier 1930, 159). Klamath, Modoc (Barett 1910, 247). Klamath, Modoc, Achomawi, Atsugewi, Maidu (Voegelin 1942, 52). Yurok, Wiyot, Kato (Driver 1939, 309). Carrier (Morice 1889, 183). Umatilla, Shuswap, Kutenai (Ray 1942, 120). Goshute, Ute (Stewart 1942, 247). Northern Paiute (Stewart 1941, 368).

[3] Osgood 1940, 453. Mason 1946, 19.

[4] Koryak (Jochelson 1905–08, 558). Yukagir (Jochelson 1926, 379). Kamchadal (Kracheninnikow 1770, II 279. Steller 1774, 180. Kennan 1871, 45).

[5] Mathiassen 1927, I 190. Mathiassen 1928, 70.

[6] Birket-Smith 1945, 182.

[7] Birket-Smith & de Laguna 1938, 438. Cf. Rostlund 1952, 161 ff. Add also: Ingalik (Woldt 1884, 188. Osgood 1940, 226 ff). Quinault (Olson 1936, 36). Haida, Bella Coola (Drucker 1950, 166). Tillamook, Alsea, Siuslaw, Coos, Sixes, Tututni, Galice, Cheko, Tolowa (Barnett 1937, 164). Alsea (Drucker 1939 a, 82). Tolowa (Drucker 1937, 233). Wappo (Driver 1936, 184 f). Sinkyone (Nomland 1935, 154). Cowichan, Comox, Sanetch (Barnett 1939, 230). Wenatchi (Teit 1928, 118). Lillooet (Teit 1900–08 a, 228). Klikitat, Tenino, Umatilla, Kittitas, Wenatchi, Sanpoil, Kalispel, Shuswap, Lillooet, Kutenai, Coeur d'Alêne (Ray 1942, 107). Tolowa, Chimariko, Wiyot, Kato, Yuki (Driver 1939, 312). Goshute, Ute, Paiute (Stewart 1942, 249. Stewart 1941, 370).

[8] Aleut (Jochelson 1925, 106 footnote). Asiatic Eskimo (Moore 1923, 354). Iglulik (Mathiassen 1928, 70 f). Baffin Island (Kumlien 1879, 38 f. Boas 1888, 482. Bilby 1923, 91). Labrador (Turner 1894, 240. Hawkes 1916, 76). West Greenland (H. Egede 1741, 60. Birket-Smith 1924, 361).

[9] Hearne 1795, 159. Stefánsson 1914, 84. Jenness 1923, 153. Rasmussen 1932, 103. Rasmussen 1931, 484, 490.

[10] Tlingit (Krause 1885, 175. Drucker 1950, 168). Haida, Tsimshian, Bella Coola (Drucker 1950, 168). Kwakiutl (Drucker 1950, 168. Barnett 1939, 230). Nootka (Kane 1863, 162. Sproat 1868, 220. Drucker 1951, 21). Comox, Pentlatch, Cowichan, Squamish. Sanetch (Barnett 1939, 230). Klallam (Gunther 1927, 200). Chinook (Townsend 1905, 365). Quinault (Olson 1936, 34). Alsea (Drucker 1939, 83. Barnett 1937, 164). Tillamook, Siuslaw, Coos, Sixes, Tututni, Galice, Chetco (Barnett 1937, 166). Tolowa (Barnett 1937, 166. Driver 1939, 313). Karok, Yurok, Wiyot, Nongatl, Mattole, Sinkyone, Kato (Driver 1939, 313). Klamath, Modoc, Atsugewi (Voegelin 1942, 56).

[11] Carrier, Lillooet (Ray 1942, 119). Chilcotin (Farrand, 1899, 647). Thompson (Teit 1900, 245). Lillooet (Teit 1900–08 a, 228). Shuswap (Teit 1900–08 b, 530). Coeur d'Alêne (Teit 1930, 101). Kutenai (Chamberlain 1893, 565). Nez Percé (Spinden 1908, 209). Wishram (Spier & Sapir 1930, 177). Tanaina (Osgood 1937, 28, 35, 101). Kutchin (Osgood 1936, 70, 75. Jones 1872, 324). Loucheux (Mason 1924, 26). Slave (Honigmann 1946, 36). Satudene (Osgood 1933, 56). Chipewyan (Hearne 1795, 328. Birket-Smith 1930, 25).

[12] Bogoras 1904–09, 151. Jochelson 1905–08, 533. Schrenck 1881–95, 519, 531. Hitchcock 1891, 470. Batchelor 1901, 520. Montandon 1937, 64.

of the marginal Eskimo regions[1]. They correspond probably to the submerged nooses on the Northwest Coast[2].

The Chugach *toboggan* presents some remarkable features. The railing must be a late addition to the original type, as is also the case of the back rest and side pieces of caribou skin on the modern "carriols" of the Northern Woodlands[3]. The construction of the body—a single, bent plank shod with baleen—has not been described from elsewhere and is much more difficult to explain; indeed, we cannot feel certain that it is absolutely correct. The main thing in this context is, however, that some sort of toboggan was known. The toboggan is not a typical Eskimo culture element, the characteristic means of conveyance in winter being, of course, the runner sledge, which is so well adapted to the ice, whereas the toboggan is primarily a forest type. Nevertheless it occurs among several Eskimo tribes. On St. Lawrence Island it was known in the Okvik phase and continued through the Old Bering Sea and Punuk periods up to modern times[4]. It is also used by the Asiatic Eskimo and the Chukchi, at Point Barrow, and in the Mackenzie delta[5]. In the eastern Arctic Mathiassen found it in the Thule site of Naujan, and it was used until recently on Southampton Island and at Iglulik[6]. There are also traditions of toboggans on Baffin Island[7]. In all the cases mentioned, with the sole exception of the Mackenzie district where the material is not specified, the toboggan is a raft-like device made of strips of baleen. Thus, both material and distribution characterizes it as a Neo-Eskimo element. It is much more difficult to decide its origin. It may be derived from the simple skin and bough sleds used sporadically in the circumpolar zone[8], but there is also the possibility that it is more directly related to the wooden toboggans of the forest. As far as I am aware, American toboggans are always made of two or three boards, but a single-board sled such as the Chugach type (although, of course, without the baleen shoeing) occurs among the Narym Tungus of Siberia[9].

Some types of apparel are evidently of Neo-Eskimo origin. The *gutskin coat* has been discussed on a former occasion[10]. Another item to be mentioned here is the so-called "*half-frock*", a broad belt of gutskin or depilated sealskin lashed under the armpits and around the combing of the manhole in the kayak in order to prevent the water from penetrating into the craft. The distribution of this type is similar to that of the gutskin coat, the umiaq etc.[11], but it is rare and evidently obsolete everywhere outside Greenland. The Eskimo are probably the only American people to use a garment of this kind, but there can scarcely be any doubt that it is related to the short skin skirt worn in cold weather by the Gilyak and other tribes in the Amur region[12].

The *eye shade* has previously been ascribed to the Neo-Eskimo culture[13]. It is found

[1] Asiatic Eskimo (Nelson 1899, 133 f). West Greenland (Birket-Smith 1924, 355 f). East Greenland (Holm 1914, 56. Thalbitzer 1914, 468).

[2] Tlingit, Haida, Tsimshian, Nootka (Drucker 1950, 175). Comox (Barnett 1937, 232).

[3] Cf. Birket-Smith 1930, 38 f.

[4] Rainey 1941, 500 f. Geist & Rainey 1936, 16, 128, 150, 197. Collins 1937, 59, 158, 240.

[5] Bogoras 1904–09, 107. Mason 1896, 560. Murdoch 1892, 356 f. Stefánsson 1914, 184, 203, 277. Mathiassen 1930 a, 39.

[6] Mathiassen 1927, I 45, 276. Lyon 1824, 201. Mathiassen 1928, 78.

[7] Bilby 1923, 133 f.

[8] Birket-Smith 1929, II 163. Birket-Smith & de Laguna 1938, 383 f.

[9] Donner 1919, 1 ff.

[10] Birket-Smith & de Laguna 1938, 387. Add: Ingalik (Osgood 1937, 50).

[11] Aleut (Sauer 1802, 159. Steller in Golder 1925, II 96. Cook & King 1785, II 514. Merck 1937, 120. Jochelson 1925, 100). Kodiak (Petroff 1884, 141). Baffin Island (Ellis 1750, 140). Labrador (Bacqueville de La Potherie 1722, I 81). West Greenland (H. Egede 1741, 79. Birket-Smith 1924, 184 ff). East Greenland (Holm 1914, 31. Thalbitzer 1914, 577).

[12] Gilyak, Olcha, Negda, Orok (Schrenck 1881–95, 392, 404 f). Goldi (Genest 1887, 173). Oroche (*Mus. f. Völkerk.*, Vienna, Nr. 60488). Sakhalin Ainu (*Ibid.* Nr. 64073). Cf. Hatt 1914, 99.

[13] Birket-Smith 1929, II 26.

in the peripheral regions of the Eskimo area, but is rare in the central region where it occurs solely among the Copper Eskimo and the Utkuhigjalingmiut, whereas among the Caribou Eskimo it is a survival from their Thule predecessors on the coast[1]. Among the North American Indians the eye shade seems to have a more sporadic distribution. It is mentioned from the Haida, Thompson, Shuswap, Klamath, and Atsugewi[2]. The eye shade of the Naskapi[3] may be an Eskimo loan, just as the occurrence on the northern Plains may be due to influence from the Plateaux as suggested by Wissler[4]. The presence of the eye shade among the Chukchi[5] is, of course, connected with its Eskimo distribution. Otherwise it has not been reported from northeastern Asia, unless a somewhat doubtful observation from Kamchatka refers to it[6].

The distribution leaves no doubt that, like other articles of the same material, the *gutskin pane* of the house belongs to the Neo-Eskimo culture. We find it in the following places: Kodiak, Nunivak, Kuskokwim, Bering Strait, Point Barrow, Iglulik (in skin-lined snowhuts only), Southampton Island, Baffin Island, Labrador, the Thule district, West Greenland, Frederik VI Coast, and Angmagssalik[7]. The inland bands of North Alaska use window panes of fish skin or thin caribou skin, and the Utkuhigjalingmiut sometimes make them of gullet skin[8]. Some fragments of gutskin from the Thule period have tentatively been identified as gutskin panes, and it is likely that they were used in the Birnirk houses too[9]. In their winter dwellings of Chinese type, but not in their old-fashioned earth lodges, the Gilyak have window panes made of salmon skin[10], but they are probably imitations of Chinese paper panes and have nothing to do with the Eskimo type.

Among the household utensils both the *rectangular wooden boxes* and the *oval or round vessels with a flat wooden bottom and a rim of baleen or thin wood* may probably be included into the Neo-Eskimo group[11]. It seems that the boxes with sides of four pieces pegged together are an older type especially characteristic of the Eskimo and the Indians of the southern part of the Northwest Coast. The flat-bottomed vessels with a rim of baleen or wood are typical of the Eskimo and a few neighbouring tribes, but they are probably related to the more advanced form of Northwest Coast boxes with sides made of a single plank bent by steam at three corners and fastened by sewing at the fourth. The prototype is possibly a kind of pail with sides of birchbark such as has been found in the Ipiutaq site[12].

[1] Aleut (Steller in Golder 1925, II 102. Merck 1937, 117. Dall 1877, 82. Dall 1878, 21 f. Mason 1896, 296). Kodiak (Birket-Smith 1941, 132). Asiatic Eskimo (Bogoras 1904–09, 260 f). Bering Strait (Woldt 1884, 217 fig. 2. Nelson 1899, 167 f. Mason 1896, 295 f). Mackenzie Eskimo (Mason 1896, 298 f). Copper Eskimo (Rasmussen 1932, 104). Utkuhigjalingmiut (Rasmussen 1931, 496). Caribou Eskimo (Birket-Smith 1929, I 213). Baffin Island (Drage 1748, I 30). West Greenland (Cranz 1770, I 297. Birket-Smith 1924, 116, 193). East Greenland (Holm 1914, 31. Mason 1896, 285. Thalbitzer 1914, 592 ff).

[2] Drucker 1950, 170. Teit 1900, 252. Ray 1942, 113. Teit 1900–08 b, 525. Voegelin 1942, 86.

[3] Turner 1894, 286.

[4] *E. g.* Crow, Arapaho (Lowie 1922, 226). Blackfoot (Wissler 1910, 124).

[5] Bogoras 1904–09, 260 f.

[6] Steller 1774, 310.

[7] Merck 1937, 129. Lisiansky 1814, 213. Schelechof 1793, 202. Holmberg 1856, 377. Lantis 1946, 157. Himmelheber 1938, 28. Seemann 1853, II 58. Chamisso 1842, 126. Beechey 1831, I 366. Nelson 1899, 246, 249. 251. Woldt 1884, 242. Sagoskin 1848–49, VI 534. Murdoch 1892, 74. Mathiassen 1928, 128 f. Mathiassen 1927, I 269. Kumlien 1879, 32. Boas 1888, 541 f. Bilby 1923, 79. Silvy 1904, 51. Turner 1894, 225. Hawkes 1916, 60 f. Mylius Erichsen & Moltke 1906, 165. Steensby 1910, 316. H. Egede 1741, 64. Birket-Smith 1924, 150. Graah 1832, 49. Holm 1914, 37. Thalbitzer 1914, 354.

[8] Stefánsson 1913, 80. Rasmussen 1931, 494. The inland tribes of North Alaska had gutskin panes in modern times but stated definitely that they had been introduced recently (Dr. Helge Larsen, verbal information). Solecki (1950, 145) and Larsen (1951, 81) mention ice panes from these tribes, too.

[9] Mason 1930, 383. Holtved 1944, II 54.

[10] Schrenck 1881–95, 327.

[11] Cf. Birket-Smith & de Languna 1938, 413 ff. Since then they have been found from the Okvik period (Rainey 1941, 537, 550).

[12] Larsen & Rainey 1948, 111.

It is beyond question that *stone polishing* is essentially a Neo-Eskimo technique. Polished stone implements occur, to be sure, both in Kachemak I, Ipiutaq, and Dorset finds, but always in small quantities as compared with the overwhelming abundance of chipped flint[1]. Chipping continued to be common at least in the Old Bering Sea period and to some extent even in modern Alaska[2], but in the later Kachemak, Punuk, and Thule periods polished slate predominates[3]. Polished slate blades are, indeed, characteristic of the later phases of the circumpolar Stone Age[4].

Hatt has pointed out long ago that the lack of *urine tanning* among the present-day Central Eskimo should be ascribed to the fact that the once continuous distribution along the arctic coast was interrupted by an advance of inland tribes[5]. Traces of urine tanning still survive among the Copper and coastal Caribou Eskimo. Of the former Knud Rasmussen writes: "They know no real form of urine tanning, but all waterproof kamiks, when cut out before being sewn, are steeped in urine for a time, whereby they become softer and easier to sew"[6]. Gabus has a similar statement of waterproof sealskin from the west coast of Hudson Bay: "*Celles-là, après le dégraissage et le séchage, sont mises à macérer dans de l'urine pendant trois semaines,*" but he adds that the method is not much used[7]. This distribution points to the Neo-Eskimo origin of urine tanning, although we do not know if it belongs to the earliest phases of the Neo-Eskimo culture; Holtved believes, for instance, that it did not arrive in Greenland with the Thule immigration but was introduced by the "Ruin Island people"[8]. Be this as it may, it is nevertheless clear that it spread eastwards from Alaska. Outside the Eskimo area we find urine tanning among the Chukchi and Yukagir[9], among the highly Eskimo influenced Ingalik[10], and on the Northwest Coast among the Tlingit, Haida, and Kwakiutl[11]. In a rudimentary form (sprinkling with urine) it occurs among the Nootka[12]. Hair washing and bathing the newborn infants in urine have a still wider distribution[13].

Mathiassen recognized the *spoon- or cup-shaped fat scraper* as a Thule form, although he found only a single specimen[14]. In later years it has been discovered not only in Thule sites in Greenland, but also in the early phases of Neo-Eskimo culture, *i. e.* Okvik, Old Bering Sea, and Punuk[15]. *The mussel-shell scraper* is evidently a type related to the aforementioned one and may likewise be of Neo-Eskimo origin, but as pointed out on a former occasion the distribution of an implement of such a simple character is extremely difficult to trace[16].

It is possible that the *stretching frame* for skins should be considered a Neo-Eskimo element; at any rate it is found only in the peripheral regions of the Eskimo area[17]. In

[1] de Laguna 1934, 69 *& passim.* Larsen & Rainey 1948, 85, 148, 168. Wintemberg 1939–40, 89. Jenness 1925, 432.
[2] Collins 1937, 147.
[3] de Laguna 1934, 124, 127. Collins 1937, 255. Mathiassen 1927, I *passim.* Holtved 1944, I *passim.*
[4] Gjessing 1944, 21 ff. Cf. Birket-Smith & de Laguna 1938, 403. Add: Drucker 1943, 42.
[5] Hatt 1916, 288.
[6] Rasmussen 1932, 105.
[7] Gabus 1942, 356.
[8] Holtved 1944, II 159. Cf. Birket-Smith 1945, 262 f.
[9] Bogoras 1904–09, 219 ff. Jochelson 1926, 430.
[10] Osgood 1940, 163.
[11] Drucker 1950, 196. Boas 1909, 400.
[12] Drucker 1951, 104.
[13] Beside the Northwest Coast tribes already mentioned also: Nootka (Drucker 1950, 192). Makah (Swan 1870, 18). Lillooet (Ray 1942, 171. Teit 1900–08 a, 221). And possibly others.
[14] Mathiassen 1927, I 175.
[15] Rainey 1941, 510 f. Collins 1937, 351. Rudenko 1947, 37.
[16] Birket-Smith & de Laguna 1938, 423. Beside from the Eskimo and Eyak they are known from the Tlingit, Haida, Tsimshian, and Kwakiutl (Drucker 1950, 196), the Coast Salish (Barnett 1939, 234), and some tribes in northwestern California (Driver 1939, 325).
[17] Bering Strait (Nelson 1899, 116). Iglulik (Parry 1824, 538. Lyon 1824, 319). Baffin Island (Kumlien 1879, 39. Boas 1888, 519, 523). Labrador (Speck 1935, 10). East Greenland (Thalbitzer 1914, 505).

northeastern Asia it occurs among the Chukchi and neighbouring tribes[1], and in Indian North America we know it from all over the Northwest Coast as far south as northwestern California[2], and from many tribes in the Plateaux area[3]. On the other hand it seems to be rare, or at least rarely mentioned, in the Mackenzie area; the Ingalik occurrence may be connected with that of the Alaskan Eskimo, and otherwise I know it here only from the Beaver and the Chipewyan[4].

Both *bow and strap drills* are lacking in the Ipiutaq and Dorset cultures, and it is very unlikely that they existed in Kachemak I[5]. They were probably introduced from Asia after the hand drill. We have the earliest evidence of their occurrence on American soil in the Platinum site from the close of the Paleo-Eskimo period, and from then on they occur in all phases of the Neo-Eskimo culture[6]. Dr. de Laguna has furthermore stated that "as far as I know, the mouthpiece for drill is lacking in southwestern Alaska. In Prince William Sound, hand rests of bear mandible or blocks of whale bone were used, and pieces of bone and antler were probably used in the Kachemak Bay culture also"[7]. She is of opinion that the mouth piece originated in northern Alaska and concludes that the hand rest "is either the older and more primitive form which has survived in the southern periphery of the Alaskan Eskimo area, or that it was introduced from Asia, via the Aleutian Islands"[8].

It is a remarkable fact that while the *thimble*, in most cases a piece of thick, depilated skin with a slit, is found all over the Eskimo area, it has not to my knowledge been reported from a single Indian tribe except the Ingalik[9]. On the other hand, it is well-known in northern Eurasia and should probably be regarded as a rather late (Neo-Eskimo?) loan.

Before leaving the field of technology we still have to consider the *hair embroidery*, which, from its distribution, must be a Neo-Eskimo type of decoration. It has been described from Kodiak, the Aleut, the Bering Strait and Asiatic Eskimo, Iglulik, and West Greenland[10], and in northeastern Asia it is known from the Chukchi, Koryak, Kamchadal, and Yukagir[11]. According to Hatt it is, in fact, common among all Siberian tribes with the exception, perhaps, of the Yakut[12], whereas it is rather unusual among the North American Indians, most of whom use quill work in stead. It is nevertheless mentioned from some tribes of the Boreal Woodlands[13]. The Shuswap use dyed horse hair, and Spier has the following statement of the Klamath: "Hair that is cut off in mourning is tied in

[1] Bogoras 1904–09, 217.

[2] Eyak (Birket-Smith & de Laguna 1938, 90). Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl (Drucker 1950, 195). Kwakiutl (Boas 1909, 400). Nootka (Meares 1790, 265. Jewitt 1896, 106). Comox, Squamish, Sanetch (Barnett 1939, 234). Chinook (Ray 1938, 118). Tillamook, Siuslaw (Barnett 1937, 165). Nongatl (Driver 1939, 325).

[3] Tahltan (Emmons 1911, 35 f, 84). Carrier, Chilcotin, Thompson, Lillooet, Shuswap, Sanpoil, Wenatchi, Kittitas, Tenino, Klikitat, Chinook, Coeur d'Alêne (Ray 1942, 125). Sanpoil, Nespelem (Ray 1933, 95). Carrier, Chilcotin (Teit 1900–08 b, 764. Morice 1895, 69). Coeur d'Alêne (Teit 1930, 44). Thompson (Teit 1900, 185). Wishram (Spier & Sapir 1930, 200).

[4] Osgood 1940, 169. Goddard 1916, 219. Birket-Smith 1930, 63.

[5] Larsen & Rainey 1948, 81, 105, 148. Jenness 1925, 435. de Laguna 1934, 78, 186.

[6] Larsen 1950, 184. Rainey 1941, 509. Collins 1937, 162 f, 236 f. Mason 1930, 356. Mathiassen 1927, I 56 f, 172 f. Mathiassen 1934, 76. Holtved 1944, I 254 f, II 50.

[7] de Laguna 1947, 170. This view is strengthened by the fact that only hand rests but no mouth pieces for drills were found at the Platinum site. (Cf. Larsen 1950).

[8] de Laguna 1947, 171.

[9] Birket-Smith 1929, II 111. Osgood 1940, 75. Thimbles occur in the Thule culture (Mathiassen 1927, I 176. Holtved 1944, I 259, II 52), and thimble guards are known from the Punuk period (Collins 1937, 241).

[10] Lisiansky 1814, 207. Langsdorff 1812, II 35. Holmberg 1856, 365, 367. Birket-Smith 1941, 128. Sauer 1802, 156. Bogoras 1904–09, 226 f. Sarytschew 1805–06, II 12 f. Nelson 1899, 38. Parry 1824, 498. Glahn 1771, 185. Birket-Smith 1924, 124.

[11] Bogoras 1904–09, 226 f. Hooper 1853, 56, 184. Jochelson 1905–08, 681. Kracheninnikow 1770, I 59.

[12] Hatt 1914, 46.

[13] Dogrib and Slave (Mackenzie 1901, 36. Honigmann 1946, 58). Satudene (Osgood 1933, 64). Chipewyan (Ingstad 1931, 189). Cree (Mackenzie 1801, xciii).

little rolls all over the [women's] dress; a man uses his own in the same way to decorate his shirt"[1].

Of *ownership marks* Dr. de Laguna says: "Owner's marks are found on barbed arrowheads of the Canadian Thule culture, and modern Alaskan Eskimo culture, and may be a trait brought into Alaska by the return of the Thule culture. They were probably derived ultimately from the rather simple, but unstandardized designs found on barbed heads of the Old Bering Sea culture"[2]. While this may be true of the more specialized marks on the arrow heads, there can be no doubt that true property marks are now found in Alaska far south of the parts influenced by the Thule "backwash". They are common on the harpoon arrows of the Pacific Eskimo, and the so-called "totem marks" in the Bering Sea region are nothing but an elaboration of the ownership mark idea[3]. This distribution certainly suggests its Neo-Eskimo origin. It may be added that they also occur among the Kwakiutl, Peel River Kutchin, Tanaina, Tsetsaut, and probably other tribes as well[4].

The *derision songs*, which were less formalized among the Chugach and the Bering Strait Eskimo than among the Aleut and Greenland Eskimo, are probably also a Neo-Eskimo element[5].

Only one Neo-Eskimo implement is connected with warfare, *viz.* the *bone dagger*. On a previous occasion I have tried to demonstrate that it is an intrusion from the west, later than the simple stiletto[6]. Mathiassen has found it in the Thule culture, and Collins's excavations have proved that it did not arrive till the Punuk period[7]. At Cook Inlet it occurs in Kachemak III[8]. For the distribution of bone daggers elsewhere in North America I refer to my previous work where they are mentioned from archeological sites in British Columbia. They have also been found on the Yukon and are probably derived from the Siberian or East Asiatic Neolithic, whereas I have some doubt as to whether they are related to the prehistoric daggers of New York as suggested by de Laguna[9].

In a previous discussion of Eskimo *masks* I distinguished between a more "realistic" and a grotesque type and suggested that the former should, perhaps, be associated with the Neo-Eskimo culture, whereas the latter might probably be traced back to Northwest Coast influence[10]. The archeological investigations of recent years have strengthened the view that masks are at any rate later than the Paleo-Eskimo culture, apart, of course, from the death masks, which are derived from entirely different ideas. The extensive excavations of a festival house at Deering, dating from the Ipiutaq period, have yielded great quantities of exceedingly well preserved wooden objects but not the slightest trace of masks[11]. On the other hand I am not so convinced as before that the impetus to the development of the grotesque type actually came from the Northwest Coast, even though some influence from there may have drifted northwards to the Eskimo. Margaret Lantis writes, after citing my previous observation, that she "agrees more with the first part than with the second"[12], and I feel inclined to believe that she is right in considering Eskimo

[1] Teit 1900–08 b, 505. Spier 1930, 211 f.

[2] de Laguna 1947, 204.

[3] For Eskimo ownership marks in general cf. Boas 1899, 601 ff, and Weyer 1932, 179 ff. Cook Inlet (de Laguna 1934, 71 f). Kodiak (Lisiansky 1814, 202. Holmberg 1856, 389, 395. Volkov & Rudenko 1910, 29). Aleut (Langsdorff 1812, II 41. Lutké 1835, I 178. Jochelson 1925, 93. Weyer 1930, 270). Nunivak (Lantis 1946, 242 f). Kuskokwim (Himmelheber 1938, 28 ff). Bering Strait (Nelson 1899, 79, 88, 322 f. Wissler 1916, 428 f). Asiatic Eskimo (Nelson 1899, 324 f). Point Barrow (Wissler 1916, 414, 428. Mathiassen 1930, 23). Thule culture (Mathiassen 1927, II 125).

[4] Boas 1909, 514. Osgood 1936, 115. Osgood 1937, 141. Boas 1895, 564.

[5] Birket-Smith & de Laguna 1938, 464.

[6] Birket-Smith 1929, II 64. Mathiassen 1927, II 52.

[7] Collins 1937, 333.

[8] de Laguna 1934, 101 f.

[9] Birket-Smith 1929, II 64. de Laguna 1947, 129, 181 f.

[10] Birket-Smith 1929, II 118. Cf. Birket-Smith & de Laguna 1938, 476.

[11] Cf. Larsen 1951, 83 ff.

[12] Lantis 1947, 92 footnote.

and Northwest Coast masks as being parallel developments of some common ancient form. The most elaborate Eskimo masks undoubtedly occur at the coasts of the Bering Sea where, on the whole, ceremonialism reached its peak, whereas the Aleut and Pacific Eskimo types are simpler.

Only one religious or semi-religious concept may tentatively be ascribed to the Neo-Eskimo, *viz.* the idea that disease may be due to the *intrusion of evil spirits*. It appears among the Alaskan and Labrador Eskimo but has not to my knowledge been mentioned from other Eskimo tribes[1], whereas it is known from numerous Indian tribes on the Northwest Coast and farther south, as well as from the Plateaux area[2]. The same idea is described from some Indians of the Northeastern Woodlands and the Paleo-Asiatics of northeastern Asia[3].

Circumpolar Elements outside the Paleo- and Neo-Eskimo Cultures.

On the preceding pages we have discussed two well defined stages of Eskimo culture, the basic Paleo-Eskimo layer and the later Neo-Eskimo complex characterized by a growing adaptation to the sea. By far the greater amount of Paleo-Eskimo elements have either a circumpolar distribution or are developed on the basis of circumpolar traits and are probably old in the history of mankind, although a few elements, such as the backed (sinew-lined) bow and the concept of spiritual owners have a mainly western distribution in North America indicating, perhaps, a somewhat minor age than the rest. Some traits apparently reached the Paleo-Eskimo in Alaska but never came to play any part in the culture as a whole, for instance the elaborate Ipiutaq art. A few Neo-Eskimo elements are also circumpolar, while others must be classified as circumpacific, and others again seem to be more or less specific Eskimo. There are, however, some circumpolar elements in the culture of the Chugach which can be included in neither the Paleo- nor the Neo-Eskimo cultures and to which we will now turn our attention.

To begin with, a few hunting and fishing devices may, perhaps, most adequately be mentioned here, although their cultural position is not quite clear, *viz.* the *fish weir* made of wooden stakes, the *log deadfall*, the *springpole snare*, and the *clog snare*. Weirs and deadfalls built of stones are common among the Eskimo, and in principle, at least, the ordinary snare is well known. Obviously the other types require a certain supply of wood, which, as a rule, is unobtainable in the Eskimo area. On the other hand the distribution of the stone weir both in North America and North Asia suggests that it is an older form than stake and basketry weirs[4]. Nevertheless stake weirs occur over great parts of North America except the Southwest and, to some extent, the Plains, where fishing is of little importance, as well as over northern Eurasia from the Chukchi to the Lapps[5].

[1] Clements 1932, 213.

[2] Tlingit, Haida, Klallam, Chinook, Tahltan (Clements 1932, 213). Tanaina (Osgood 1937, 170). Bella Coola, Kwakiutl, Nootka (Drucker 1950, 226). Makah (Swan 1870, 77). Alsea? (cf. Farrand 1901, 245). Quinault (Willoughby 1889, 275). Chinook, Klikitat, Tenino, Umatilla, Kittitas, Wenatchi, Sanpoil, Kalispel, Thompson, Flathead, Coeur d'Alêne (Ray 1939, 362).

[3] Clements 1932, 213.

[4] Birket-Smith 1929, II 161. Sirelius 1906, 430.

[5] Birket-Smith 1929, II 232. Cf. Rostlund 1952, 169 ff. Add: Haida, Bella Coola (Drucker 1950, 167). Nootka (Drucker 1951, 16). Comox, Nanaimo, Squamish, Sanetch (Barnett, 1939, 229). Chinook (Ray 1938, 108). Quinault (Olson 1936, 26 ff). Skokomish, Chimakum (Eells 1877, 81, Eells 1889, 634). Alsea (Drucker 1939, 82). Tillamook, Siuslaw, Coos, Sixes, Tututni, Galice, Chetco, Tolowa (Barnett 1937, 163). Chimariko, Karok, Wiyot, Chilula, Nongatl, Mattole, Sinkyone, Kato, Yuki (Driver 1939, 312). Klamath, Modoc, Wintun, Nisenan (Voegelin 1942, 55). Klikitat, Tenino, Umatilla, Kittitas, Wenatchi, Kalispel, Coeur d'Alêne (Ray 1942, 104). Nespelem, Sanpoil (Ray 1933, 62 f). Okanagan (Teit 1930, 247). Wishram (Spier & Sapir 1930, 149). Tanaina (Osgood 1937, 99). Sekani (Jenness 1937, 42). Slave (Honigmann 1946, 38). Satudene (Osgood 1933, 39, 57). Yukagir (Jochelson 1926, 373).

We know too little of the Chugach deadfall to allow a detailed study of the distribution. It is clear that it belongs to what Cooper has called the "underpropped" type, but further particulars of the construction are not available. Log deadfalls of some kind are known in most parts of the Northwest Coast, the Plateaux and Mackenzie areas, and in northern Asia[1]. It seems to me that the general appearance of the stone-weighted Chugach form shows some resemblance to those of, for instance, the western Athapaskans, the Nez Percé, and Quinault[2], but it is impossible to vouch for the correctness of this view.

The springpole snare is foreign to the Eskimo as a whole, perhaps for geographical reasons, whereas it is of such common occurrence on the Northwest Coast and farther south, on the Plateaux, and in the Mackenzie area that it is superfluous to enumerate all the tribes from which it has been described[3]. From Asia it will suffice to mention the Kamchadal and Gilyak[4], but elsewhere in Siberia it seems to some extent to have been replaced by the more developed cross-bow trap. The clog snare, *i. e.* a snare attached to a tree or heavy log, has a circumpolar distribution. According to Cooper it is used chiefly for caribou and lynx by the Tanaina, Tahltan, Tsé'kélme (Chechelmen? = Squamish), Beaver, Chipewyan, Cree, Algonkin, and Wiyot, while in Siberia it occurs in the regions of the Lena and Ilima[5]. It is probably the same device mentioned as "log snare" from the Tlingit, Haida, Tsimshian, and Kwakiutl[6]. The *torsion trap* has a much more limited distribution and can hardly be called circumpolar at all, since in the New World it is only found among the Alaskan Eskimo[7]. West of Bering Strait it is known to the Asiatic Eskimo, the Chukchi and Koryak[8] and is, on the whole, widespread in Siberia. There is no doubt that Lipps is right in considering it an invention originally belonging to the high civilizations of the eastern hemisphere[9].

As stated formerly, birchbark containers with separate bottom and rim are old among the Eskimo, occurring as far back as the Ipiutaq culture, whereas *vessels made of a single piece of bark* folded together are not found in the Eskimo area outside Alaska. One explanation may, of course, be the lack of proper material, but the principal reason as far as the Alaskan tribes are concerned is probably that they have not appeared among them till a late date. On the Kobuk the earliest find is from the 18th century[10]. On the other hand it is an old and widespread type among the Indians, primarily in the Mackenzie area[11] and the Northeast, nor is it lacking on the Plateaux[12] or on the Northwest Coast, although in the latter region wooden vessels are more common; here it occurs among the Tsimshian and the southern tribes[13]. In northern Eurasia it is found all over the continent from the Yukagir to the Lapps[14].

[1] Birket-Smith & de Laguna 1938, 429. Cooper 1938, 59 ff.

[2] Cf. Morice 1893, 95 f. Spinden 1908, 214. Olson 1936, 51.

[3] For details of distribution cf. Niblack 1890, 294. Drucker 1950, 175. Barnett 1937, 164. Ray 1942, 120. Driver 1939, 309. Voegelin 1942, 52. Olson 1936, 51. Cooper 1938, 32 ff. Birket-Smith 1930, 25. Osgood 1933, 59 f.

[4] Steller 1774, 115 f. Schrenck 1881–95, 553.

[5] Cooper 1938, 25 ff.

[6] Drucker 1950, 174.

[7] Nelson 1899, 122.

[8] Geist & Rainey 1936, 101. Bogoras 1904–09, 138. Jochelson 1905–08, 555.

[9] Lipps 1927, 234 ff, 271.

[10] Giddings 1944, 119.

[11] Ingalik (Woldt 1884, 197 fig. 12. Osgood 1940, 133 f). Tanaina (Osgood 1937, 106). Sekani (Mackenzie 1801, 142. Jenness 1937, 35). Kutchin (Jones 1872, 321). Dogrib and Slave (Mackenzie 1801, 37). Slave (Honigmann 1946, 54). Satudene (Osgood 1933, 58). Chipewyan (Birket-Smith 1930, 47 f).

[12] Tahltan (Emmons 1911, 48). Carrier, Chilcotin, Lillooet, Shuswap, Sanpoil, Nespelem, Wenatchi, Kittitas, Tenino, Klikitat (Ray 1942, 140. Ray 1933, 37 f. Teit 1900, 200. Teit 1900–08 a, 205, 216. Teit 1900–08 b, 477 ff, 764. Morice 1889, 136. Morice 1893, 120 ff). Okanagan, Kutenai (Hill-Tout 1911, 132. Teit 1930, 222). Coeur d'Alêne (Teit 1930, 53). Flathead (Teit 1930, 328 f).

[13] Tsimshian (Drucker 1950, 177). Chehalis (Hill-Tout 1904, 333). Makah? (Swan 1870, 46). Tillamook, Coos, Tututni (Barnett 1937, 169).

[14] Jochelson 1926, 412 f. Kracheninnikow 1770, I 42. Hitchcock 1891, 454. Balogh von Barátos 1914, 182. Landor 1893, 209. *Museum f. Völkerk.*, Vienna, Nr. 60374. Specimens in the National Museum, Copenhagen.

Smoke curing of depilated skins is just as rare among the Eskimo as it is common among a great number of Indian tribes. Apart from Prince William Sound the sole Eskimo region from where this procedure is described is the coast of Labrador[1], where it is easily accounted for as a result of Naskapi influence. South of the Eskimo area it occurs nearly all over the Northwest Coast and in adjacent parts of California[2]. It is also widely employed on the Plateaux, though in the case of the Thompson it is said to be a (recent?) loan from the Okanagan, while the Lillooet are said to have borrowed the method from the Shuswap[3]. In the Mackenzie area it seems to be equally widespread[4], and in northeastern Asia it is known from the Chukchi, Koryak, Yukagir, and Kamchadal[5]. However, smoke curing has a much larger distribution than thus indicated. It occurs also in the Northeastern Woodlands and on the Plains, and in the Old World, although it is lacking among the Ostyak and Lapps, we find it as far west as among the Siberian Samoyed and among Central Asiatic peoples such as the Kalmuk and Kirgiz[6].

In the *carrying cradle* we encounter another element which, like the birchbark containers, smoke curing, etc. is practically unknown to the Eskimo but extremely common among the Indian and Siberian tribes. It is mentioned from the Aleut[7], whereas the "baby bags" of the Labrador Eskimo have evidently nothing to do with this type. There is no reason to enter upon a detailed discussion of all the different cradle types in North America. It will suffice to state that the Chugach and Aleut form seems to be most closely related to the "boat-" or "tub-shaped" cradles of the Northwest Coast and the Plateaux, although the latter are made of wood or bark[8], whereas the Chugach and Aleut cradles are of skin stretched on a wooden frame. Neither the Chukchi nor the Koryak and Kamchadal use cradles, but among other Siberian tribes, as for instance the Yakut, we find a type apparently related to the Northwest American one.

A widespread and evidently very old idea, *viz.* the conception of sickness being caused by the intrusion of *disease objects*, is only found among the Alaskan and Copper Eskimo and therefore seems to be associated with the occurrence of the same idea in large parts of western North America where it is found on the Northwest Coast[9], in California[10], on the Plateaux[11], and in the Mackenzie area[12]. In northeastern Asia similar views are held by the Koryak and Gilyak[13].

[1] Hawkes 1916, 42 f.

[2] Tlingit, Tsimshian, Bella Coola, Kwakiutl (Drucker 1950, 196). Comox, Cowichan, Squamish (Barnett 1939, 234). Chinook (Ray 1938, 118). Skokomish, Chimakum, Klallam (Eells 1877, 82, Eells 1889, 635. Lacking among the Klallam, however, according to Gunther 1927, 219). Tillamook, Alsea, Siuslaw, Coos, Sixes, Tututni, Galice, Chetco, Tolowa (Barnett 1937, 165). Tolowa, Karok, Wiyot (Driver 1939, 325). Klamath, Modoc, Shasta, Achomawi, Atsugewi, Wintun, Maidu (Voegelin 1942, 81). W. Washington and NW. Oregon (Gibbs 1877, 210).

[3] Tahltan (Emmons 1911, 83 f). Chilcotin, Carrier, Lillooet, Thompson, Kutenai, Flathead, Coeur d'Alêne, Shuswap, Kalispel, Sanpoil, Wenatchi, Kittitas, Umatilla, Tenino, Klikitat (Ray 1942, 126). Western Athapaskans (Morice 1889, 137. Morice 1893, 145). Thompson (Teit 1900, 185). Okanagan (Teit 1930, 218). Shuswap (Boas 1891, 636. Teit 1900–08 b, 205). Coeur d'Alêne (Teit 1930, 44 f). Lillooet (Teit 1900–08 a, 205). Nez Percé (Spinden 1908, 215 f). Sanpoil, Nespelem (Ray 1933, 95). Wishram (Spier & Sapir 1930, 200 f). Klamath (Spier 1930, 173).

[4] Kutchin (Osgood 1936, 67, 71). Tanaina (Osgood 1937, 76). Satudene (Osgood 1933, 59). Slave (Mason 1946, 25. Honigmann 1946, 52). Chipewyan (Hearne 1795, 261. Birket-Smith 1930, 63).

[5] Bogoras 1904–09, 220. Jochelson 1905–08, 29. Jochelson 1926, 430. Kracheninnikow 1770, I 54.

[6] Hatt 1914, 37 f.

[7] Merck 1937, 122. Cf. the engraving representing the interior of an Aleut house in Cook & King 1785.

[8] Cf. Boas 1909, 458. Goddard 1924, 82 fig. Swan 1870, 18. Morice 1893, 133 f. Teit 1900, 306 f. Teit 1900–08 a, 261. Teit 1900–08 b, 584, 787. Teit 1930, 166, 279. The Ingalik use cradles of bark or salmon skin (Osgood 1940, 282 ff).

[9] Eyak (Birket-Smith & de Laguna 1938, 213). Tlingit, Haida, Vancouver Island, Klallam, Twana, Quileute, Quinault, Chinook, Tillamook (Clements 1932, 193 ff). Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl, (Drucker 1950, 226). Chinook (Ray 1938, 86). Quinault (Olson 1936, 158). Tillamook (Boas 1923, 10 f). Alsea (Drucker 1939, 258).

[10] Driver 1939, 326. Park 1938, 136.

[11] Thompson, Shuswap, Kutenai (Clements 1932, 193 ff). Carrier, Chilcotin, Thompson, Lillooet, Shuswap, Kutenai, Flathead, Sanpoil, Wenatchi, Kittitas, Umatilla, Tenino, Klikitat (Ray 1942, 246). Cf. Park 1938, 136.

[12] Clements 1932, 193 ff. Add: Sekani (Jenness 1937, 72).

[13] Clements 1932, 193 ff.

The Chugach believe that *spirits have a pointed head.* Unfortunately, it is rare to find any description of the appearance of spirits, and besides they may assume many different shapes. It would be rash, therefore, to attempt to state the distribution of this idea. I know of a few instances in North America only: an ivory figurine from Cook Inlet described by Dr. de Laguna as a shaman's doll, and a wooden spirit figure from the Quinault[1]. On the other hand we find numerous examples in Siberia, from the Koryak and Amur tribes in the east to the Samoyed and Ostyak in the west[2]. Probably this idea crossed Bering Strait at a not very remote period.

It still remains to add a few words about the *ritualistic attitude towards the bear.* Hallowell has shown that some sort of ceremonial, culminating in the regular bear cult of the Lapps, Ainu, and Amur tribes, occurs well nigh over the entire circumpolar zone[3]. The details vary greatly, however, and in some places it is present only in a more or less rudimentary form. This is the case with the Chugach, who do nothing but address the bear apologetically before the killing and afterwards bury the skull and bones. The address of apology is found, outside the Northeastern Woodlands, both among the Tlingit and the tribes of northeastern Asia[4]. A feast celebrated in honour of the slain bear after the head has been taken ceremoniously into the house has a similar distribution[5] but is not reported from the Chugach, although this may very well be due to the general disintegration of ceremonial among them (cf. "The Man who Married a Bear" p. 153). The ritual disposal of the bear skull which occurs on the North-west Coast, in great parts of the Plateaux and Boreal Woodlands and in Siberia[6] is probably much older (cf. p. 194).

Circumpacific Elements.

Several Neo-Eskimo elements are circumpacific in so far as outside the Eskimo area they occur principally on the coasts of both continents, but besides the culture of the Chugach contains many traits which are circumpacific in a stricter sense of the word, since they are not found among the Eskimo outside the Aleutian and Pacific groups.

One of the most important of these elements is *whaling by means of poisoned lances,* which has been described from Kodiak, the Aleutians, and the Kurilian Ainu[7]. Heizer, in his survey of the whaling methods around the northern Pacific, has identified the poison employed as being derived from aconite root and has shown its circumpacific distribution[8]. Heizer also refers to the modern European method of killing whales by means of harpoons poinsoned with Prussic acid. Here it should be noted that whaling by means of arrows infected with ptomaine poison has been in use in Norwegian waters probably since the Middle Ages or, according to Gjessing, possibly since the Stone Age, although so far the latter assumption is an unproven hypothesis[9]. However, there is hardly any reason for supposing a connection between this method and that of the northern Pacific, although some slate points from both regions show a remarkable similarity.

[1] de Laguna 1934, 114. Olson 1936, 149 fig. 34 c.

[2] Koryak (Jochelson 1905–08, 39 fig. 5 e). Gilyak (Schrenck 1881–95, pl. liii ff). Gilyak, Goldi, Altai Tatars, Samoyed (Zelenin 1936, *passim*).

[3] Hallowell 1926, 53 ff.

[4] Tlingit, Yukagir, Kamchadal, Ainu (Hallowell 1925, 55 f).

[5] Hallowell 1926, 74 ff, 83 ff, 106 ff. Swanton 1908, 455.

[6] Hallowell 1926, 136 ff. Drucker 1950, 223, 287 f.

[7] Merck 1937, 129. Sauer 1802, 181. Lisiansky 1814, 174, 202, 206, 209. Holmberg 1856, 387 ff, 397. Petroff 1884, 142. Dall 1870, 404. Wrangell 1839, 53 f. Elliott 1886, 151 ff. Kittlitz 1858, I 267 f. Kracheninnikow 1770, II 213. Steller 1774, 98.

[8] Heizer 1943, 443 ff.

[9] Nansen 1911, II 157 f. Gjessing 1945, 245.

The *esoteric whaling rites* of the Chugach closely resemble those of Kodiak and the Aleutians: initiation of the young hunters, use of human remains, avoidance of contact with menstruating women, and sexual abstinence before the hunt, etc. As pointed out by Margaret Lantis these rules constitute a typical complex fundamentally different from the rites combined with the Neo-Eskimo harpoon whaling[1]. It is the more perplexing, therefore, that we find it again associated with harpoon whaling on Vancouver Island and the coast of Washington[2]. If we are right in assuming that harpoon whaling existed formerly among the Aleut and Pacific Eskimo, poisoned-lance whaling must be a later intrusion. Now Lantis suggests, though somewhat reluctantly, that the eastern Aleutians and the Kodiak region were the original centre of dissemination of the "southern" ritual complex, *i. e.* the one with which we are concerned here[3]. This would mean that it spread more rapidly than the poison technique itself and on the southern part of the Northwest Coast was linked together with the older harpooning method. There are, indeed, a few Nootka rites which, while lacking among the Pacific Eskimo and the Aleut, are identical with those of North Alaska and thus may be survivals of the harpoon ritual: certain persons holding right to particular parts of the whale in distribution, special face paintings for whalers, the whale is offered a drink, etc. Thus I am willing to accept the view that the "southern" rites spread from the north along the coast of North America, but I have some doubt that they originated in the region suggested by Margaret Lantis. There is a possibility that they were introduced from Asia together with the aconite poison. We should remember that in Japan "there is a strong suspicion of an older stratum of esoteric accompaniments to whaling"[4], which means, perhaps, that in former times there existed a ritual complex there like that of the Pacific Eskimo. However, the question must be left open for the present.

The cylindrical *wooden quiver* has been discussed on a previous occasion[5].

The *digging stick* occurs on Kodiak in what Hrdlička calls the pre-Koniag as well as in the later period[6]. It is common on the Northwest Coast and the Plateaux and is included among the circumpacific elements, for whereas the Chukchi and Koryak use mattocks for digging up roots and the like, club-like sticks are employed by the Ainu[7].

Chest yokes for carrying are found among the Eskimo at Bering Strait as well as among the Tanaina and Koryak[8].

The *rectangular apron* is worn by the Kodiak Eskimo, by many tribes on the Northwest Coast as far south as California, in the Plateaux area and among the Amur tribes and Ainu[9]. *Coats made of horizontal stripes* of small animals' skins are also typically circumpacific[10]. The *conical hat* of woven spruce roots or of wood is known from the Yukon-Kuskokwim delta (a single specimen noted by Merck as far north as Norton Sound may

[1] Lantis 1938, 449 ff.
[2] Lantis 1938, 451.
[3] Lantis 1938, 456.
[4] Heizer 1943, 424 footnote 17.
[5] Birket-Smith & de Laguna 1938, 433. Add: Nootka (Drucker 1950, 186, Drucker 1951, 32). Comox, Pentlatch (Barnett 1939, 246).
[6] Hrdlička 1944, 331, 346.
[7] Birket-Smith & de Laguna 1938, 440, 519. Add: Tlingit, Haida, Bella Coola, Nootka (Drucker 1950, 176, Drucker 1951, 35). Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 234). Quinault (Olson 1936, 79). Alsea (Drucker 1939, 84). Modoc, Shasta, Achomawi, Atsugewi, Wintun, Nisenan (Voegelin 1942, 57). Carrier, Flathead, Kutenai, Klikitat. Tenino, Umatilla, Kittitas, Wenatchi, Kalispel (Ray 1942, 145). Ingalik (for digging post holes, Osgood 1940, 176 ff). Ainu (MacRitchie 1892, pl. xvii, fig. 10).
[8] Nelson 1899, 211. Lantis 1946, 167. Osgood 1937, 72. Jochelson 1905–08, 606.
[9] Birket-Smith & de Laguna 1938, 391. Add: Kwakiutl (Drucker 1950, 188). Klikitat, Sanpoil, Kalispel (Ray 1942, 164).
[10] Birket-Smith & de Laguna 1938, 386 f. Add: Kodiak (Birket-Smith 1941, 127 f). Ingalik (Osgood 1940, 256 f.

be a trade piece), the Kodiak Eskimo, and the Aleut[1]. It is also used by the Tanaina and is characteristic of the Northwest Coast until, in California, it is replaced by the hemispherical cap[2]. From the coast region it has made its way inland to some of the Plateaux tribes[3]. It is said of the Slave that "men, women, and children also wore hats of woven spruce roots[4], but the shape is not described, and it is open to doubt whether they had anything to do with the hats of the coast, as otherwise we have no evidence of coast influence so far to the east. On the other hand the connection with the Asiatic conical hats seems obvious. Among the Kamchadal and Gilyak they were made of wood or bark, and von Krusenstern tells us that some Ainu had "*einen in der Mitte zugespitzten Strohhut*"[5]. The Japanese, Chinese, and Indonesian conical hats are, of course, so well known that they need no further documentation.

In her work on the archeology of Cook Inlet Dr. de Laguna considered the *nose ornament* a rather recent loan from the Northwest Coast, whereas on a later occasion we referred it to the circumpacific elements[6]. No new evidence has been brought to light which can solve the problem. Nose pins occur in what Hrdlička calls "pre-Koniag" sites on Kodiak as well as in the Port Möller site, which also seems to be rather old[7], but otherwise only a few more examples of their occurrence in western North America can be added here[8].

The *rectangular wooden house* has a circumpacific distribution[9], but some structural details in the Chugach dwelling point towards specific affinities to the neighbouring Indian tribes, in particular to the Tanaina and the Eyak, although the Chugach house lacked the central ridge pole of the Eyak type. An even number of roof beams occurs, however, among the Tanaina, Tlingit, Haida, and Tsimshian. All the tribes mentioned have a regular smoke hole and a smoke screen of boards, the latter being movable except among the Tanaina. Vertical wall planks are supposed to be an older trait than walls built of horizontal planks. Like the house itself so also the *separate sleeping rooms* have a circumpacific distribution[10].

This applies also to the *boat-shaped wooden vessels*[11]. Evidently the oblong *vessel in animal shape* is nothing but an elaboration of the boat type, and Leroi-Gourhan is undoubtedly right in tracing a connection between the former and certain Asiatic vessels, especially in the Amur region[12]. On the other hand, in its most distinct form the animal

[1] Nelson 1899, 167. Volkov & Rudenko 1910, 42. Merck 1937, 117, 127, 134. Schelechof 1793, 199. Sarytschew 1805–06, II 13, 35. Langsdorff 1812, II 57. Holmberg 1856, 368 f. Birket-Smith 1941, 129 f. Saikof 1782, 285. Osgood 1937, 51.

[2] Tlingit (Fleurieu, an vi, II 56. Krause 1885, 147, 198. Malaspina 1849, 287. Caamaño 1849. 351. Belcher 1843, I 100. Kotzebue 1830, II 27). Tlingit, Haida (Niblack 1890, pl. XII). Kwakiutl (Boas 1909, 452 f). Nootka (Cook & King 1785, II 304. Meares 1790, 252. Fleurieu, an vi, II 223. Jewitt 1896, 107, Drucker 1951, 97 f). Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl, Nootka (Drucker 1950, 189). Comox (Barnett 1939, 247). Snuqualmi, Snohomish, Skykomish, Cowichan (Haeberlin & Gunther 1930, 38). Klallam (Gunther 1927, 230). Makah (Swan 1870, 45. Gibbs 1877, 176). Nootka, Makah, Chinook, Puget Sound (Lewis 1906, 165 f). Skokomish, imported from the Makah (Eells 1877, 73). Chinook (Franchère 1904, 325. Ray 1938, 138. Lewis & Clarke 1814, 438). Tillamook (Lewis & Clarke 1814, 438). Quinault (Willoughby 1889, 268. Olson 1936, 55 f).

[3] Klikitat, Tenino, Umatilla, Kittitas, Wenatchi, Sanpoil, Kalispel, Shuswap (Ray 1942, 167). Sanpoil (Ray 1933, 48).

[4] Honigmann 1946, 57.

[5] Steller 1774, 310. Schrenck 1881–95, 387. Krusenstern 1811, II 2, 101. Cf. Balogh von Barátos 1914, 183 (Sakhalin Ainu).

[6] de Laguna 1934, 207. Birket-Smith & de Laguna 1938, 397 f.

[7] Hrdlička 1944, 334. Weyer 1930, 265.

[8] Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 248). Alsea (Drucker 1939, 88). Siuslaw, Coos, Sixes, Chetco, Tolowa (Barnett 1937, 173). Achomawi, Atsugewi, Maidu, Nisenan (Voegelin 1942, 85).

[9] Birket-Smith & de Laguna 1938, 365 ff.

[10] Birket-Smith & de Laguna 1938, 368 f. Add: Haida, Tsimshian, Bella Coola (Drucker 1950, 180).

[11] Birket-Smith & de Laguna 1938, 420. Add: Ingalik (Osgood 1940, 119 f). Tanaina (Osgood 1937, 104). Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 235). Chinook, Carrier, Thompson, Lillooet, Sanpoil, Kittitas, Klikitat (Ray 1942, 142).

[12] Leroi-Gourhan 1946, 459 ff.

type is characteristic of the northern part of the American Northwest Coast[1]. Its influence can be seen among the Eskimo at least as far as Norton Sound[2], and, as suggested by Leroi-Gourhan, it has affinities also to certain stone vessels from prehistoric sites on Vancouver Island and the region of the Lower Fraser River.

The circumpacific distribution of the *stone mortar* has been established previously[3], as well as of *twined basketry* and *mats*[4]. Twined baskets were found in the late Paleo-Eskimo site of Platinum[5], but seem to be later in North America than the coiled type. According to de Laguna the twining in Chugach mats trends upwards from the left to the right as in the mats of the Bering Strait Eskimo, the Indians of the Lower Yukon and the Northwest Coast including the Quinault, and the same feature is found in Koryak and Kamchadal mats, whereas among the Thompson the weft slopes from the right to the left. "While the evidence is not conclusive, one has the impression that twining upward from left to right is older than downward twining, and that the Eskimo and Tena mats are old-fashioned in this respect"[6].

The same author has distinguished between the broad snow shovel of the Arctic Eskimo and the narrow, *paddle-shaped shovel* known from the Chugach, Ingalik and, in a somewhat similar form, from the Carrier and Shuswap[7]. In the latter case she refers to the shovels of the Ainu and Japanese peasants, which Bishop believes are associated with Chinese rice cultivation[8], and arrives at the conclusion that "it is not impossible, therefore, that it should have traveled across the Aleutian Islands to the North American mainland".

Two methods of stone working should also be included among the circumpacific elements, *viz. pecking* and *sawing*. Pecking has been discussed on a previous occasion[9]. Stone saws occur in Kachemak III, on the Aleutians, on prehistoric Eskimo and Indian sites on the Yukon and Kobuk, and on the Northwest Coast as well as in Manchuria, Mongolia, and Japan[10]. "This would suggest," Dr. de Laguna says, "that this implement reached the prehistoric Japanese proper from the Asiatic mainland and that it was passed on by them (?) to their Ainu neighbors in the north." This "was probably the source from which the Aleut, Pacific Eskimo, Tena, and Salish types were derived." This is in accordance with the fact that stone saws do not appear on the southern Northwest Coast till the comparatively late, so-called Maritime phase[11]. On the other hand de Laguna believes that the stone saws of the Southwest (Hohokam, Pueblo, and southern California) may have come from Middle America, independently of the northern type.

The question of *matrimonial partnership* or secondary husbands presents some difficult points, partly because it has not always been kept apart from ordinary polyandry and

[1] Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl (Drucker 1950, 177).

[2] Cf. Nelson 1899, pl. xxxi fig. 5.

[3] Birket-Smith & de Laguna 1938, 412. Leroi-Gourhan 1946, 464 ff. de Laguna 1947, 221. Add: Klikitat, Tenino, Umatilla, Lillooet (Ray 1942, 143). Chimariko, Karok (Driver 1939, 324). Modoc, Shasta, Achomawi, Atsugewi, Wintun, Maidu, Nisenan (Voegelin 1942, 73 f). Paiute (Stewart 1941, 381). Goldi (Genest 1887, 174).

[4] Birket-Smith & de Laguna 1938, 416 ff.

[5] Larsen 1950, 184.

[6] de Laguna 1947, 218.

[7] de Laguna 1947, 132, 215. Osgood 1940, 178 f. Teit 1900–08 b, 475.

[8] I have seen curved, paddle-shaped shovels among the agricultural implements of the Bontoc Igorot on northern Luzón.

[9] Birket-Smith & de Laguna 1938, 403. Add: Ahteut site on the Kobuk (Giddings 1944, 123 f). Prehistoric Northwest Coast (Drucker 1943, 61. King 1950, 39).

[10] de Laguna 1934, 62, 175 f. de Laguna 1947, 123, 150, 168. Giddings 1944, 119. Evidence of stone sawing was discovered on a 19th century site at Bristol Bay, but no saws were found (Larsen 1950, 178). As a slab of bone or even of wood together with sand and water may suffice for the process, this cannot be taken as an absolute proof of the use of stone saws. In the Philippines, stone saws belong to the late Neolithic, Yang Shao-influenced period (Beyer 1948, 56 f).

[11] King 1950, 86.

partly because Sternberg, who discussed the problem many years ago, tried to fit the institution into Lewis H. Morgan's theory of group marriage. As stated in the chapter on Social Life, sexual intercourse was probably permitted between cross cousins and between a man and his sisters-in-law if they lived together in the same house. According to Sternberg similar customs prevailed on Kodiak and the Aleutians as well as among the Tlingit[1]. Jochelson says of the Aleut that matrimonial partnership existed between a man and his elder brothers' wives and between a man and his wife's sisters[2], and that secondary husbands of some kind were at least common there appears from the fact that there was a general term for them in use by the Russians, *viz.* половиншчик, *i. e.* "partner"[3]. Drucker describes the conditions among the Tlingit, Haida, and Tsimshian simply as polyandry[4], a custom also reported from some Californian tribes[5], but in the latter case a connection with the northern distribution centre has not been established. The sporadic occurrence of polyandry among the Netsilik Eskimo, Sekani, and Beaver is well known[6]. Of the Chukchi Bogoras says that "second and third cousins are almost invariably united by ties of group-marriage; brothers, however, do not enter into such union", and a man will practise his matrimonial rights as a secondary husband "only when he visits for some reason the camp of the 'companion'"[7]. The Yukagir have adopted the Chukchi custom[8], whereas the Koryak marriage is strictly individual[9]. Finally, Sternberg describes what he calls group-marriage from the Gilyak, among whom, according to his statement, it exists between all cross-cousins[10]. Still, he admits that there is also individual marriage, but this he considers a later derivation of a genuine group marriage in the sense of Morgan. Needless to say, the theory of Morgan regarding the development, of marriage has been abandoned by all modern ethnologists, and it is possible that Sternberg overrated the extent and importance of the matrimonial rights in Gilyak society. On the other hand we cannot deny the fact that some sort of matrimonial partnership existed on both sides of the Pacific, even if it cannot be classified as a group marriage in the proper meaning of the term.

Some culture elements associated with the treatment of the dead are typically circumpacific. Thus, Dr. de Laguna has shown that *grass mats for shrouds* is "a trait linking the Tena, Southwestern Eskimo, Aleut, and Bronze Age Chinese"[11]. The circumpacific distribution of *cremation* has been pointed out previously[12]. *Mummification* was practised on Kodiak and the Aleutians[13]. It has also been mentioned, with some doubt, from the Athapaskans on the Lower Yukon, but in this connection it should be remembered that Jacobsen found "natural mummies", *i. e.* dried bodies, in Ingalik graves[14]. Mummification is well known from the Tsimshian, who eviscerated the body and filled the cavity with cedar bark, but according to later information furnished by Drucker the same custom prevailed also among the Kwakiutl and was known in a simpler form (evisceration only) by the

[1] Sternberg 1913, 332 f, citing Davydov, Veniaminov, and Jochelson.
[2] Jochelson 1933, 72.
[3] Ermann 1870–71, III 163.
[4] Drucker 1950, 215.
[5] Achomawi, Wintun, Nisenan (Voegelin 1942, 131).
[6] Rasmussen 1931, 195. Morice 1889, 123. Wentzel in Osgood 1933, 79. Honigmann (1945, 162) lists "fraternal polyandry, rare?" among Slave culture elements, but I fail to find reference to it in the text.
[7] Bogoras 1904–09, 602 ff.
[8] Jochelson 1926, 111.
[9] Cf. Jochelson 1905–08, 478 ff.
[10] Sternberg 1913, 324.
[11] de Laguna 1947, 218.
[12] Birket-Smith & de Laguna 1938, 471 f. de Laguna 1947, 93 f.
[13] Saikof 1782, 286 f. Merck 1937, 124. Sauer 1802, 161, 177. Sarytschew 1805–06, II 168 f. Dall 1878, 6. Elliott 1886, 186. Weyer 1929, 230 ff. Hrdlička 1945, 182 ff, 417 ff.
[14] de Laguna 1947, 93. Woldt 1884, 193.

Haida[1]. Evisceration and drying of the body was, moreover, used by the Ainu of Sakhalin[2]. Outside the regions with which we are concerned here we find both true mummification and simple drying of the body with and without the use of fire over large parts of both Americas, particularly in the western areas[3]. Whereas Linné favours the belief that mummification spread from Colombia, James is of opinion that the methods of the Aleut and Pacific Eskimo are a diffusion from Asia, independent of the Northwest Coast practice, while Dr. de Laguna thinks that "it would seem more likely that the Tsimshian custom represents a peripherial survival, isolated because of the growth of other methods of corpse disposal on the Northwest Coast"[4]. In this view I fully agree but I feel, at the same time, that the Ainu method forms another link in the same chain.

Slavery and *transvestism* are other circumpacific elements, both of which have been treated fully elsewhere[5].

The village community of the Chugach was characterized by the function of *two chiefs* or rather of one chief and a sub-chief or chief assistant, called tujuq and saka·nʃʟk respectively. The same form of organization is found among the Tanaina, of whom Osgood tells us that the Russians "were said to have introduced the terms Toyon and Zagacik which have since been used to distinguish the two types of leadership", adding that the second chief was originally a leader of the hunting parties and that his position was strengthened by the Russians[6]. Chieftainship is an old trait in northwestern North America[7]. However, among the Chugach as well as among the Tanaina the terms for both chiefs are evidently of foreign origin, tujuq being the same word as the Yakut *toyon*, "a lord"[8], while saka·nʃʟk is evidently identical with Russian загонщик, meaning a "drover" or "beater", probably because one of his duties was to summon the villagers and announce the orders of the chief. Now it seems that the Russians were actually in the habit of employing Russian and semi-Russian words to designate the headmen of the Siberian and Alaskan tribes with which they came into contact. The best known term is the above-mentioned *toyon*, which was used both for Kamchadal and Tlingit chiefs, whereas the sub-chief of the Kamchadal was called есаул, the common term for a Cossack captain. The use of loan words to designate the village headmen of the Chugach does not prove, however, that their offices were post-Russian, even if Osgood, Laughlin and Marsh are probably right in the supposition that their authority increased in colonial times. The social organization on the Northwest Coast was based upon a deeply rooted respect for wealth and prestige and the existence of a clan system with hereditary chiefs whose position was rather that of heads of certain noble families than of political leaders with territorial power. We find, however, also a "chief's speaker"[9], whose office may correspond to that of the sub-chiefs of the Chugach and Tanaina, and regular sub-chiefs occur farther south along the coast and on the Plateaux[10]. Among the Wintun and Ute there are two

[1] Drucker 1950, 216.
[2] Siebold 1897, II 227, 249.
[3] Linné 1929, 236 ff.
[4] James 1928, 216. de Laguna 1947, 93. It is moreover suggestive that according to Laughlin & Marsh (1951, 82), mummification is a late trait on the Aleutians and never reached the westernmost islands.
[5] Birket-Smith & de Laguna 1938, 450 f, 452 ff. Add: Ingalik (Osgood 1940, 456).
[6] Osgood 1937, 132. Laughlin & Marsh (1951, 84) are likewise of the opinion that on the Aleutians "the system of First, Second, and Third chief... was introduced by the Russians for more effective control of the villages."
[7] Birket-Smith & de Laguna 1938, 450.
[8] Czaplicka 1914, 363.
[9] Tlingit, Haida, Tsimshian, Kwakiutl, Nootka (Drucker 1950, 221, Drucker 1951, 269).
[10] Skokomish (Eells 1877, 103). Snohomish (Haeberlin & Gunther 1930, 58). Oregon (Barnett 1937, 185). Quinault (Olson 1936, 96). Tillamook (Boas 1923, 4). Modoc, Achomawi, Maidu, Nisenan (Voegelin 1942, 106). Carrier, Lillooet, Shuswap, Kutenai, Coeur d'Alêne, Kalispel, Wenatchi, Kittitas, Klikitat (Ray 1942, 229). Flathead (Teit 1930, 376). Nespelem, Sanpoil (Ray 1932, 109 ff).

assistant chiefs[1]. Information of the tribes of northeastern Asia is meagre on this point, and at all events the loose organization of the Chukchi and Koryak seems more like that of the northern Eskimo. Nevertheless there were apparently among the Kamchadal both a chief and an assistant chief, "*der eigentlich die executive Gewalt im Ostrog besitzt, da der Tayon ihm nur seine Befehle mittheilt*"[2], and in the Ainu villages there were two or more sub-chiefs besides the chief proper[3]. Under these circumstances I am inclined to include the double chieftainship of the Chugach, at least tentatively, among the circumpacific elements.

Since the history of the North Pacific *armour* was first approached by Ratzel, the question of its origin has been discussed several times, the most recent contribution being that of Collins after his discovery that the ivory plate armour of the Eskimo does not appear till the Punuk period[4]. Ratzel, Hough, and Krickeberg all agreed that the American armour was derived from Japanese metal prototypes, but Laufer pointed out convincingly that this assumption meets with so great difficulties that it must be abandoned. In fact, the Su-chên, a Tungus tribe northeast of China, were in possession of plate armour manufactured of bone splints as early as the 1st century A.D., *i. e.* at a time when Japanese metal armour did not yet exist. The outcome of his investigation is that while he admits that the plate armour in the Bering Strait region may have originated in Central Siberia, he nevertheless feels more inclined to consider it a local derivation of the skin cuirass of the American Northwest Coast independent of the East Asiatic plate armour[5]. However, Collins has shown that the sudden appearance of ivory plate armour in the Bering Strait region together with such traits as new types of arrow heads, wrist guards, etc., cannot very well be reconciled with the idea of a local development but rather indicates an intrusion from the outside. Bengt Thordeman, who studied the occurrence of the plate armour in Eurasia, is inclined to believe that it originated among the Iranian nomads and spread both to Europe and, via Central Asia, to the Far East[6].

All authors mentioned, with the sole exception of Collins, are convinced that the American wooden slat armour is related to the plate armour in some way or other. Collins, however, rightly maintains that "technically there is as great a discontinuity between Eskimo and Northwest Coast amour as there is a continuity between the former and that which is found widespread in Asia"[7]. He adds that it is "rather unlikely that the history of armour in America is to be encompassed in so short a period" as has elapsed since Punuk times, but in spite of these difficulties he prefers to leave the question unsolved.

At this point we may pick up the thread. First it should be noticed that there is a distinct though not very wide gap between the distribution of the two types. The ivory or antler plate armour is, in America, found at Bering Strait and northward as far as Point Barrow[8], whereas the wooden slat armour does not appear till south of the Bering Sea, *i. e.* among the Aleut and Pacific Eskimo[9]. From here we have, however, a virtually continuous distribution along the coast as far south as northern California[10], and extending

[1] Voegelin 1942, 106. Stewart 1942, 300.
[2] Krusenstern 1812, II 2, 50. Cf. Steller 1774, 355.
[3] Scheube 1880–84, 237 f. Batchelor 1901, 278.
[4] Ratzel 1887. Hough 1895. Laufer 1913. Laufer 1914. Krickeberg 1914, 689 ff. Collins 1937, 325 ff.
[5] Laufer 1914, 269 f.
[6] Thordeman 1933, 140 f.
[7] Collins 1937, 332.
[8] Nelson 1899, 330. Stefánsson 1914, 384 ff.
[9] Merck 1937, 130. Lowe 1842, 479. Dall 1878, 18.
[10] Tanaina (Osgood 1937, 111). Tlingit (Lisiansky 1814, 238. Caamaño 1849, 353. Kittlitz 1858, I 216. Krause 1885, 209 f. Niblack 1890, 168 ff). Tlingit, Haida, Tsimshian, Kwakiutl (Drucker 1850, 187). W. Washington and NW. Oregon (Gibbs 1877, 192). Chinook (Franchère 1904, 331. Lewis 1906, 170. Ray 1938, 60). Quinault (Olson 1936, 118). Tolowa? (Drucker 1937, 238). Karok, Yurok, Hupa, Chilula (Driver 1939, 328). Klamath, Modoc, Shasta, Achomawi, Atsugewi, Wintun, Maidu (Voegelin 1942, 73).

Plateaux[1]. Another area of distribution of slat and rod armour occurs in Canada and the eastern United States among the Iroquois, Powhatan, etc.[2]. Central America we have no information about wooden armour but only nics. So is also the case of the Inca empire. Krickeberg has, however, called a famous vase from Trujillo, dating from the Mochica period, on which two seen clad in what seems to be rod armour, as well as to certain archeological hich he interprets as fragments of such[3]. Montell has expressed his doubt rectness of this view[4], but Erland Nordenskiöld has brought to light an ob- an early Spanish writer according to which a genuine rod armour must have the Araucanians[5]. As the Araucanians in so many respects were deeply Peruvian culture there seems to me no reason to doubt that some sort of ur was actually known in the early periods of Peruvian coastal culture. entitled to consider all types of American slat and rod armour mutually must be of considerable age in the New World. The next problem is whether parallels in Asia. First it may be mentioned that besides the ordinary metal is in Japan a type called *take gusoku*, which is described as a "bamboo corselet g with spears"[6]. This can hardly be anything but a kind of rod or slat armour. ntiquity the ordinary armour was made of hide; such armour was used even etal plate armour had been introduced during the early Han Dynasty and among the primitive tribes of southern China until recently; in the *Museum* de of Vienna there is, for instance, a modern specimen from the Lolo. We er, both from the later Han and the T'ang Dynasties references to wooden h, as Laufer says, can only be interpreted as slat armour[7]. More doubtful ese observation concerning the Pa tribes in Hunan which tells us of "*Platten-lättchen, die kaum 1/2 Zoll (1 cm?) dick waren*"[8]. The thickness of the plates ude the possibility that they were made of metal, but whether we here have gular wooden slat armour is nevertheless open to doubt. On the other hand conclude that this type of armour was known in medieval China, probably from still earlier periods, and like so many other circumpacific elements it ll have spread to the American Northwest Coast long before the Eskimo rmour came into existence.

inted warpicks like those described from the Chugach are known from pre- on the Yukon and from the Tlingit, Haida, and Tsimshian[9]. On the Asiatic ur on the Kurile Islands and in the Jômon (early Ainu) period of the Japanese Both Leroi-Gourhan and de Laguna suggest affinities between this type of the grooved, double-bitted splitting adze, but whereas the former author upon the Bronze Age dagger-axe of China and southern Japan as the pro- e Laguna feels that the Ainu form may be a copy of the American weapon,

mmons 1911, 116). Carrier (Morice 1893, 117). Chilcotin (Farrand 1899, 8 b, 785). Shuswap (Teit 1900–08 b, (Teit 1900, 265). Okanagan, Sanpoil, Teit 1930, 117, 256). Lillooet (Teit

5, 632.
1914, 694.
9, 107.
ld 1931, 93.
Handb. Ethnogr. Coll., 54.

[7] Laufer 1914, 276.

[8] Eberhard 1942, 370. Slat armour is said to have occurred formerly on the Philippines, but I have found no references in the available literature.

[9] de Laguna 1947, 121, 163. Krieger 1930, 148. In the collection of the Duke of Leuchtenberg in the *Museum f. Völkerk.*, Munich, there is a fine old specimen with a copper head (Mus. Nr. 819), but unfortunately no information as to origin, etc. is available.

[10] Munro 1911, figg. 16–17. Schnell 1932, pl. v fig. 1. Leroi-Gourhan 1946, 241 ff. de Laguna 1947, 163.

admitting at the same time a wider relationship between the warpicks, Northwest Coast "slave killers" and East Asiatic dagger-axes. Only further archeological investigations, especially on the Northwest Coast, can ultimately solve the problem, which is closely linked with the relative chronology of the types. However, there can be no doubt of their circumpacific distribution.

The same is true of the *slingshot* or "braining stone". In her work on the archeology of Cook Inlet Dr. de Laguna writes: "The stone grooved around the middle and over one end, also belonging to the Third Period, is distributed from prehistoric Japan to British Columbia," adding, however, that "in the last analysis, perhaps, the lines cannot be rigidly drawn between the hafted club, braining stone, bola, and sling shot"[1]. I should even call attention to the difficulty of making a sharp distinction between slingshot stones and net sinkers in prehistoric finds. In order to avoid mistakes of this kind I shall therefore confine myself to giving the distribution of the actual slingshot, which we find, outside the Pacific Eskimo region and the Aleutians, at Point Barrow[2], on the southern part of the Northwest Coast[3], on the Plateaux[4], and in the Great Basin among the Ute and Paiute[5]. It is not unlikely that the Plains war club with a stone head attached to an elastic handle may be a distant relative of the same type. It also occurs among the Chukchi and Koryak[6], and Torii writes of the Kurilian Ainu: "... *ils passèrent une corde longue de six à sept pieds dans le trou de ces vertèbres* [*de baleine*] *qu'ils nouèrent au milieu, puis tenant en mains les deux bouts de cette corde, en la faisant rapidement tourner, ils en firent une arme redoutable*"[7].

While the *notched ladder* used at the refuge rocks is typically circumpacific[8], the distribution of the so-called "*strong man*" *institution* is more problematic. The "strong men" closely correspond to the *e'rmačın* of the Chukchi and are also known from the Koryak and Yukagir as well as from the Aleut[9]. In war the Tlingit, and perhaps other Northwest Coast tribes too, arranged organized fights between especially picked men[10], but this can hardly be taken as a conclusive proof of the presence of the same custom as among the Chugach and Paleo-Asiatic tribes.

Culin has summarized the distribution of the *hoop-and-pole game* in North America and finds it "throughout the entire continent north of Mexico"[11]. Among the Eskimo, however, it is not known east of Bathurst Inlet[12]. In Asia it occurs among the Chukchi and Ainu[13].

It is possible that also the *shamans' dolls* should be included among the circumpacific elements, although the evidence is meagre[14].

[1] de Laguna 1934, 169, 172.
[2] Murdoch 1892, 191.
[3] Kwakiutl, Comox, Sechalt (Barnett 1939, 232).
[4] Carrier, Chilcotin, Thompson, Lilloet, Sanpoil, Coeur d'Alêne, Wenatchi, Kittitas, Klikitat (Ray 1942, 123). Thompson (Hill-Tout 1900, 502). Shuswap (Boas 1891, 638).
[5] Stewart 1941, 386. Stewart 1942, 269.
[6] Bogoras 1904–09, 161. Jochelson 1905–08, 561.
[7] Torii 1919, 224.
[8] Birket-Smith & de Laguna 1938, 371. Add: Ainu (Scheube 1880–84, 227. MacRitchie 1892, 34).
[9] Bogoras 1904–09, 639 ff. Jochelson 1905–08, 763. Jochelson 1926, 121 f. Laughlin & Marsh 1951, 84.
[10] Krause 1885, 248. Niblack 1890, 342.
[11] Culin 1907, 623 ff. Wissler 1926, 16. Birket-Smith & de Laguna 1938, 482. Add: Northwest Coast (Drucker 1950, 199. Barnett 1939, 252). Washington and Oregon (Barnett 1937, 175). Plateaux (Ray 1942, 182). Ingalik (Osgood 1940, 398). Kutchin (Osgood 1936, 101).
[12] Nelson 1899, 333. Stefánsson 1914, 391. Jenness 1923, 220. Birket-Smith 1945, 213.
[13] Bogoras 1904–09, 272 f. MacRitchie 1892, 26.
[14] Birket-Smith & de Laguna 1938, 502 ff.

Northwest American Elements.

This group of elements comprises a number of traits which are more or less widespread east of Bering Strait, whereas they are not found, at least nowadays, on the Asiatic side.

Harpoon arrows are characteristic of the South Alaskan Eskimo and the Northwest Coast, and they have been adopted by the Ingalik and a few other tribes[1]. I suppose they are a rather late invention. To be sure some very small barbed heads have been described from the Kachemak I period[2], and on account of their size it might be tempting to interpret them as arrow heads; but the size alone is not decisive, for from Kodiak we have sea-otter harpoons with barbed heads which are in no way bigger than those intended for harpoon arrows[3]. The small, sharply set-off tang on some heads is without doubt a later trait than the wedge-shaped butt.

The *angular halibut hook* is a typical Northwest Coast form which, among the Eskimo, has not spread farther than Kodiak[4], whereas on the Northwest Coast it is found among all the northern tribes[5]. Just as characteristic of this area are the *herring rake*, only the distribution is still larger[6], and the *dug-out canoe*[7]. The *single-bladed paddle* is probably intrusive among the Eskimo[8]. The earliest evidence of its appearance seems to belong to the Birnirk phase[9], and even that is not beyond doubt, as the specimens are incomplete. Lethbridge proposes that some ivory pendants with Dorset decoration from the eastern Arctic "are intended to represent kayak paddles and if so they suggest that at this time single paddles were in use"[10], but in view of the fact that this type has never been found anywhere east of the Mackenzie his hypothesis seems rather far-fetched.

Recent archeological finds have made the history of the *labret* more complicated and problematic than it was supposed to be only a few years ago. At the time of discovery labrets were generally worn by the Pacific Eskimo and Aleut[11], and apparently the custom has continued without interruption since early times, as labrets occur in all layers at Kachemak Bay[12]. On Kodiak they were found both in what Hrdlička calls pre-Koniag and Koniag strata, and they are likewise known from old Aleut sites, although it seems that they were not known on the westernmost islands[13]. On the Alaskan coast north of the Peninsula we are confronted with the remarkable fact that labrets, often of enormous size, are abundant in Ipiutaq sites, but then they suddenly disappear in the Old Bering Sea, Punuk, Birnirk, Thule, and Tikeraq periods only to turn up again in modern times[14].

[1] Birket-Smith & de Laguna 1938, 432.
[2] de Laguna 1934, 82 ff.
[3] Birket-Smith 1941, 135 f.
[4] Birket-Smith 1941, 146.
[5] Niblack 1890, 290 f. Krause 1885, 179. Drucker 1950, 168. In a somewhat different (curved instead of angular) form it occurs as far south as Puget Sound. Gudger (1927, 342) and Rostlund (1952, 184) suggest an historical connection with the Polynesian *Ruvettus* hook, but this view has been refuted by Dixon (1933, 328 ff).
[6] Northwest Coast (Niblack 1890, 292. Rostlund 1952, 194). Tlingit (Holmberg 1856, 311. Krause 1885, 178). Kwakiutl (Boas 1909, 504 f). Nootka (Cook & King 1785, II 328. Meares 1790, 264 f. Sproat 1868, 224. Jewitt 1896, 170. Drucker 1951, 23). Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl, Nootka (Drucker 1950, 170). Kwakiutl, Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 231). Puget Sound (Haeberlin & Gunther 1930, 28. Lewis 1906, 158). Klallam (Gunther 1927, 202). Klallam, Skokomish, Chimakum (Eells 1889, 633). Chinook (Henry 1897, 838. Ray 1938, 110). Quinault (Olson 1936, 38). Alsea (Drucker 1939, 83).
[7] Birket-Smith & de Laguna 1938, 379 f.
[8] Birket-Smith 1929, II 79.
[9] Mason 1930, 386.
[10] Lethbridge 1939, 216.
[11] Kodiak (Coxe 1787, 116. Stählin 1774, 32. Schelechof 1793, 198 f. Lisiansky 1814, 195. Merck 1937, 128. Holmberg 1856, 361 f. Dall 1870, 402. Birket-Smith 1941, 132 f). Aleut (Coxe 1780, 41 *et pass.* Stählin 1774, 37. Sauer 1802, 155. Sarytschew 1805–06, II 14. Merck 1937, 116. Dall 1870, 387. Jochelson 1925, 96 ff).
[12] de Laguna 1934, 122 ff.
[13] Weyer 1930, 265. Hrdlička 1944, 334, 347 f. Hrdlička 1945, 461. Laughlin & Marsh 1951, 82.
[14] Collins 1937, 305. Larsen & Rainey 1948, 114 ff. Larsen 1950, 181.

Here we meet them along the coast as far east as Cape Bathurst[1], and it has been suggested that they were either re-introduced from the south or from the inland tribes, among whom the old custom may have survived[2]. In view of the relative conformity of the shape between the Ipiutaq and modern North Alaskan specimens I feel rather inclined to favour the latter idea.

It is well known that the labret had a wide distribution among the Indians of the Northwest Coast. Scarcely any early traveller has failed to mention it[3]. It has also been found in prehistoric sites there[4] and has been adopted by some neighbouring tribes[5]. Dr. de Laguna has tentatively described the labret as a circumpacific element which spread from Asia to North America, while Helge Larsen and Rainey are more apt to believe that the diffusion took the opposite direction by way of the Aleutians[6]. However, on closer view the Asiatic occurrence of the labret turns out to rest upon very slender foundations. Jochelson found in Kamchatka "a polished marble object resembling a labret" but he gives neither a description nor a picture of the specimen[7]. What is beyond any doubt a labret of Aleut type was brought to light on Shumushu, the northernmost one of the Kurile Islands, but the site is post-Russian[8], and the Russians are known to have transferred many Aleuts to the Kuriles for the sea-otter hunt. The evidence for the use of the labret in the Japanese Stone Age is, as also Munro admits[9], of such flimsy nature that it is better left unconsidered. While I have a clear understanding that the scales may very well one day turn in favour of the Asiatic origin of the labret I prefer to leave the question open for the present.

As regards the *head band* it will suffice to cite the previously stated observation that it is known practically all over the northern and western parts of North America including the Eskimo area[10]. The custom of *sticking feathers in the band* has obviously reached the Eskimo from their Indian neighbours and is limited to the western group, although it is not very typical of the Northwest Coast[11]. A parallel to the *"veil" of Dentalium shells and beads* worn by chiefs' daughters on ceremonial occasions is found among the Tlingit. Krause gives the following description: "*Seltener und höher geschätzt* [than the beaded hair sticks of the girls] *ist ein recht hübsch aus Dentalien und Perlen gearbeiteter Schmuck, der wie ein breites Band von den Haaren über den Rücken bis fast zur Erde herabhängt*"[12]. The ceremonial head dress of the Carrier chiefs[13], though a male ornament, may, perhaps, be a related type. The *ear ornament of Dentalium shells or beads* hanging from the helix of the ear is primarily a Northwest Coast type, but it occurs also in the adjacent areas

[1] Stefánsson 1921, 39. Richardson 1851, 355.— Nunivak (Lantis 1946, 224 ff). Yukon (Woldt 1884, 337 f). Bering Strait (Beechey 1831, I 341, 384. Sagoskin 1848–49, VI 531. Merck 1937, 134 f. Dall 1870, 140. Nelson 1899, 44 ff). Asiatic Eskimo (Nelson 1899, 45 ff. Cf. Bogoras 1904–09, 351). Inland tribes (Murdoch 1892, 145. Nelson 1899, 28. Amundsen 1909, 351. Stefánsson 1914, 155). Point Barrow (Simpson 1843, 157. Hooper 1853, 224. M'Clure 1856, 63. Murdoch 1892, 143 ff. Stefánsson 1914, 224). Mackenzie Eskimo (Franklin 1828, 118. Simpson 1843, 119. Murdoch 1892, 146. Stefánsson 1914, 162, 167).

[2] Larsen & Rainey 1948, 116.

[3] Tlingit (Portlock 1789, 289. Fleurieu, an vi, II 48 ff. La Pérouse 1797, II 200. Kotzebue 1830, II 28. Malaspina 1849, 287. Caamaño 1849, 352. Belcher 1843, I 86 f. Vancouver 1798, II 408. Langsdorff 1812, II 99. Kittlitz 1858, I 194 f. Holmberg 1856, 301). Haida (Fleurieu, an vi, II 171. Dixon 1789, 208). Tsimshian (Drucker 1950, 191). Kwakiutl (Vancouver 1798, II 280).

[4] Drucker 1943, 59.

[5] Ingalik (Osgood 1940, 285 ff). Tanaina (Osgood 1937, 54). Babine (Morice 1893, 166, 170). Chilcotin? (Farrand 1899, 647). Archeological specimens of labrets or ear plugs were found in the Dalles-Deschutes region (Strong, Schenck & Stewart 1930, 61).

[6] de Laguna 1934, 204 ff. Larsen & Rainey 1948, 116.

[7] Jochelson 1928, 43.

[8] Baba cited by Leroi-Gourhan 1946, 105.

[9] Munro 1911, 260, 280.

[10] Birket-Smith 1929, II 93, 185.

[11] Birket-Smith & de Laguna 1938, 396 f.

[12] Krause 1885, 148.

[13] Morice 1893, 173 ff.

including that of the Pacific Eskimo[1]. On the whole the use of *Dentalium, Haliotis*, and other shells for ornaments is a characteristic Northwest Coast trait[2]. Likewise the use of *body paint* must have reached the Chugach from Indian sources[3], and it may be added that the use of *painted decoration* and *inlaying* of wooden objects is probably also derived from the south[4].

The *pit oven* is certainly extremely old in the history of mankind and is found in all parts of the world, but in the regions with which we are dealing here it has its centre on the Northwest Coast and the Plateaux[5], so it seems a likely supposition that it was introduced among the Chugach from there. *Carved spoons* of mountain-goat horn are characteristic of the Northwest Coast, although they may have some affinities to Asiatic Bronze Age types[6].

The heavy *splitting adze* has been discussed in details both by de Laguna and Leroi-Gourhan. In northwestern North America it is lacking in the Aleut area but is otherwise found from the Haida and Tsimshian in the south and as far as Kotzebue Sound in the north[7]. A similar type is well-known from the New England states and adjacent regions[8], but while de Laguna is of opinion that "it is difficult to find Asiatic parallels to the American splitting adz", Leroi-Gourhan refers to certain grooved adzes from Korea and southern Japan. The general resemblance between the Asiatic and American forms is indisputable, but as the Asiatic distribution corresponds to that of bronze weapons and mirrors and that of certain agricultural implements, he may be right in concluding that the Asiatic adze is too late to have influenced the American forms, and the more so since it seems to have been unknown to the Ainu[9]. Still, it should be borne in mind that a related type, the ridged adze, occurs as early as in Middle Neolithic times in China and the Philippines[10]. In America "*le centre le plus ancien paraît être au nord-est des États-Unis, entre la Nouvelle Écosse et les Lacs*", whence according to Leroi-Gourhan it spread via the Great Lakes and the Yukon to Bering Strait and along the Copper River to Kodiak and the Northwest Coast[11]. Dr. de Laguna, on the other hand, believes that the Northwest and Northeast American grooved adzes are "parallel developments which have arisen independently from the smaller planing adz which itself has an ancient and wide distribution"[12]. The idea of a local development of the Northwest Coast type is strengthened by the fact that we have heavy ungrooved adzes both from the Ipiutaq and Dorset cultures which may be the prototype of the grooved type[13]. Whether there may still be a connection between the Alaskan and the northeastern forms is a question which shall not be discussed here.

Hafted *stone mauls* or hammers are, perhaps, fairly recent both among the Eskimo and the Northwest Coast tribes in spite of their wide distribution, which includes the Plateaux, Plains, and Pueblo areas. They do not occur in the Old Bering Sea[14], but a hammer of pecked stone was found at the Ahteut site on the Kobuk, probably contempo-

[1] Birket-Smith & de Laguna 1938, 398 f. Add: Haida, Bella Coola (Drucker 1950, 190). Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch, (Barnett 1939, 248). Quinault (Olson 1936, 61). Tillamook, Siuslaw, Coos, Sixes, Chetco, Tolowa (Barnett 1937, 173). Achomawi, Atsugewi (Voegelin 1942, 84). Ingalik (Osgood 1940, 288 f).

[2] Birket-Smith & de Laguna 1938, 395. Drucker 1950, 190.

[3] Birket-Smith & de Laguna 1938, 400.

[4] Cf. Birket-Smith & de Laguna 1938, 410 f. Drucker 1950, 183.

[5] Birket-Smith & de Laguna 1938, 442. Add: Haida (Drucker 1950, 177). Chilcotin, Kutenai, Flathead, Kalispel, Wenatchi, Kittitas, Umatilla, Tenino, Klikitat (Ray 1942, 137).

[6] Leroi-Gourhan 1946, 450 ff.

[7] de Laguna 1947, 154. Cf. Drucker 1943, 43 ff.

[8] de Laguna 1944, 155. Leroi-Gourhan 1946, 216 f.

[9] Leroi-Gourhan 1946, 215.

[10] Beyer 1948, 30 f.

[11] Leroi-Gourhan 1946, 216 f.

[12] de Laguna 1947, 155.

[13] Larsen & Rainey 1948, 85 f. Cf. Wintemberg 1939–40, 314.

[14] Collins 1937, 360.

In the *girls' puberty rites* the characteristic northwestern details of the use of a sucking tube and a head scratcher are lacking among the Chugach, but the temporary seclusion is a definitely western element[1]. Another Northwest Coast trait, which has spread to several neighbouring tribes, is the *exhibition of the corpse* before its final disposal[2], and the *burial on the top of isolated rocks and islets* also belongs here[3].

Whereas freedom in exploiting the hunting grounds is probably a very old feature in the circumpolar zone, *individually or family owned fishing places* are common in the northwestern parts of North America. Thus we find them on the Northwest Coast, probably extending as far south as northern California, and on the Plateaux[4]. They occur also among the Ingalik, Tanaina, and Kutchin[5].

Among the various methods of greeting one custom is very characteristic of the Northwest Coast, *viz.* the circumnavigation of the visitors' boat, accompanied with *singing and making speaches*. It was observed by many early seafarers, for instance among the Tlingit, Kwakiutl, Nootka, and the tribes of Puget Sound and seems everywhere to have been a general ceremony[6].

Before leaving the discussion of Chugach sociology we still have to consider the important question of the existence of a *secret society*, originally raised by Margaret Lantis[7]. The fragmentary information obtained by early writers such as Davydov and Veniaminov from Kodiak and the Aleutians respectively can hardly be explained without assuming that there was some sort of male society the members of which were admitted after undergoing an initiation and who appeared wearing masks and performed some secret rites. Our information from Prince William Sound is still more deficient, and the meaning of the rites seems to have been forgotten long ago, but some details show a striking similarity to those recorded from Kodiak: the secrecy and use of masks, the frightening and beating of the women, and the blowing of whistles, though the Chugach instrument evidently differed from that of the Kodiak Eskimo, which was hanging in a thread from the septum of the nose. We shall probably never be able to obtain a full understanding of the rites, faint traces of which may have spread as far north as Nunivak[8], but everything we know goes to show the existence of a secret society, which was probably ultimately derived from the well-known societies of the Northwest Coast.

A few traits associated with warfare have a northwestern distribution. Krickeberg believed that both rod armour and *wooden helmets* on the Northwest Coast had Japanese prototypes[9]. Now, this can hardly be correct as far as the armour is concerned (cf. p. 215f), and while the metal helmets of the Chukchi and Koryak are probably of Asiatic, though scarcely of Japanese, origin, the same view cannot be maintained respecting the wooden

[1] Birket-Smith & de Laguna 1938, 469 f. Add: Nootka (Drucker 1951, 137 ff). Chinook (Ray 1938, 71). Quinault (Olson 1936, 104 f). Alsea (Drucker 1939, 96). Chilcotin, Wenatchi, Kittitas, Umatilla, Tenino, Klikitat (Ray 1942, 202). Chimariko, Karok, Yurok, Nongatl (Driver 1939, 351). Modoc, Achomawi, Atsugewi, Wintun, Maidu, Nisenan (Voegelin 1942, 71). Goshute, Ute (Stewart 1942, 309). Ingalik (Osgood 1940, 457). Slave (Mason 1946, 31. Honigmann 1946, 85). Dogrib (Duchaussois 1922, 330 f.).

[2] Birket-Smith & de Laguna 1938, 470. Add: Chinook (Ray 1938, 74).

[3] de Laguna 1934, 165 f.

[4] Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl, Nootka (Drucker 1950, 220 f. Cf. Niblack 1890, 335). Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 268). Klallam (Gunther 1927, 205). Chinook (Ray 1942, 231). Tolowa, Karok, Yurok, Wiyot, Hupa, Sinkyone (Driver 1939, 316). Wintun, Nisenan (Voegelin 1942, 62). Carrier, Lillooet, Coeur d'Alêne (Ray 1942, 231). Thompson (Teit 1900, 293). Wishram (Spier & Sapir 1930, 175).

[5] Osgood 1936, 114. Osgood 1937, 141. Osgood 1940, 456.

[6] Cook & King 1785, II 273. Kotzebue 1830, II 32. Krause 1885, 243 f. Belcher 1843, I 102. Vancouver 1798, I 263, 281. Meares 1790, 113. Cf. Niblack 1890, 373.

[7] Lantis 1947, 27 ff.

[8] Lantis 1947, 30 f.

[9] Krickeberg 1914, 698 f.

helmets of the Pacific Eskimo and the Indians of the Northwest Coast[1]. The double-edged *copper dagger* is, of course, of Tlingit origin if not actually imported from them.

The large screens covering as much as twenty, thirty, or even forty warriors are limited to the Pacific Eskimo, but they seem to represent a further development of the square or rectangular *shield* made of wooden slats lashed together, which is found sporadically in the western parts of the continent, including, perhaps, Prince William Sound. It is known from both Kodiak and Nunivak[2], and the descriptions of the early authors of similar weapons from the Aleutians have recently beeen corroborated by cave finds made by Hrdlička[3]. Indian shields have been discussed at length by Petri. Slat shields were evidently rare, for statements are available only from the Chipewyan, Carrier, Lillooet, and Shuswap; the Slave also carried a wooden shield, but the type is not known[4]. Although the description does not fit very well with the type in question here, it should be noted that the Tanaina had a "clublike parrying shield made of pieces of bone fastened with spruce gum and bound with sinew"[5]. It is difficult to realize the exact character of a shield of this kind, which at best is quite unique, and the information may, perhaps, be a confused recollection of a slat shield. Oblong shields of wood covered with hide or made entirely of hide are common among many Plateaux tribes, who have, however, in many cases adopted the circular Plains type[6]. Shields did not occur on the coast except among the Eyak, who used a goat-skin shield apparently similar to that of the Plateaux tribes[7].

Head trophies must be included among the Northwest American elements. They are found all over the Northwest Coast, whence they have spread to the Alaskan Eskimo as far as Kuskokwim and Bristol Bay[8].

The Chugach *Feast of the Dead* had the same *potlatch* character as the corresponding ceremonies on the Northwest Coast and adjacent regions, and there can be no doubt that it was originally borrowed from there[9]. It is not surprising, therefore, that we must look to the same source for the origin of certain details in connection with the feasts: the *ceremonial paddles*, sometimes replaced by *eagle-feather wands*, and the *blowing of eagle down*[10]. The circular *jingle rattle* is another typical Northwest Coast element[11], and the same is true of the *hollow rattle*, which, however, is found outside the coast proper among many tribes of the Plateaux area[12]. There are no exact parallels to the *birdbone whistle* among the Eskimo, unless the Kodiak whistles mentioned by Davydov belong to this category[13]. On the other hand bone whistles, very often though not always made of bird bones, are common both on the southern part of the Northwest Coast and in northern

[1] Kodiak (Lisiansky 1814, 205). Tlingit (Holmberg 1856, 323. Kittlitz 1858, I 216. Krause 1885, 199. Niblack 1890, 270). Haida, Kwakiutl (Drucker 1950, 187). Nootka (Meares 1790, 254).

[2] Stählin 1774, 32. Coxe 1780, 112. Lantis 1946, 168.

[3] Coxe 1780, 155. Lowe 1842, 479. Hrdlička 1945. 135.

[4] Petri 1938, 8, 58. Morice 1890, 140. Fraser cited by Jenness 1932, 356 footnote.

[5] Osgood 1937, 111.

[6] Interior and Middle Columbia Salish, Okanagan, Coeur d'Alêne (Petri 1938, 55 ff, 59).

[7] Birket-Smith & de Laguna 1938, 145 f.

[8] Birket-Smith 1929, II 48. de Laguna 1934, 166. Cf. Friederici 1906, 11, 29.

[9] Cf. Birket-Smith & de Laguna 1938, 474: Quinault (Olson 1936, 112 f). Ahtena (Allen 1889, 265 f).

[10] Birket-Smith & de Laguna 1938, 475, 396.

[11] Birket-Smith & de Laguna 1938, 477. Add: Haida, Tsimshian (Drucker 1950, 198). Nootka (Drucker 1951, 106). Klallam (Eells 1889, 652). Aberrant forms of the same type occur among the Eyak (Birket-Smith & de Laguna 1938, 174 f) and Tanaina (Osgood 1937, 178).

[12] Tlingit (Portlock 1789, 282. Fleurieu, an vi, II 59. Krause 1885, 202. Volkov & Rudenko 1910, 45 f). Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl, Nootka (Niblack 1890, 331. Boas 1897, 439, figg. 209–12. Drucker 1950, 198). Nootka (Cook & King 1785, II 311. Jewitt 1896, 130. Drucker 1951, 106). Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 251). Klallam, Chimakum (Eells 1889, 678). Makah (Swan 1870, 77 fig. 44). Tahltan (Emmons 1911, 44). Carrier, Thompson, Chinook (Ray 1942, 186). Carrier (Morice 1893, 118, 221). Tanaina (Osgood 1937, 177).

[13] Dawydow 1816, 185 f. Cf. Holmberg 1856, 408.

helmets of the Pacific Eskimo and the Indians of the Northwest Coast[1]. The double-edged *copper dagger* is, of course, of Tlingit origin if not actually imported from them.

The large screens covering as much as twenty, thirty, or even forty warriors are limited to the Pacific Eskimo, but they seem to represent a further development of the square or rectangular *shield* made of wooden slats lashed together, which is found sporadically in the western parts of the continent, including, perhaps, Prince William Sound. It is known from both Kodiak and Nunivak[2], and the descriptions of the early authors of similar weapons from the Aleutians have recently beeen corroborated by cave finds made by Hrdlička[3]. Indian shields have been discussed at length by Petri. Slat shields were evidently rare, for statements are available only from the Chipewyan, Carrier, Lillooet, and Shuswap; the Slave also carried a wooden shield, but the type is not known[4]. Although the description does not fit very well with the type in question here, it should be noted that the Tanaina had a "clublike parrying shield made of pieces of bone fastened with spruce gum and bound with sinew"[5]. It is difficult to realize the exact character of a shield of this kind, which at best is quite unique, and the information may, perhaps, be a confused recollection of a slat shield. Oblong shields of wood covered with hide or made entirely of hide are common among many Plateaux tribes, who have, however, in many cases adopted the circular Plains type[6]. Shields did not occur on the coast except among the Eyak, who used a goat-skin shield apparently similar to that of the Plateaux tribes[7].

Head trophies must be included among the Northwest American elements. They are found all over the Northwest Coast, whence they have spread to the Alaskan Eskimo as far as Kuskokwim and Bristol Bay[8].

The Chugach *Feast of the Dead* had the same *potlatch* character as the corresponding ceremonies on the Northwest Coast and adjacent regions, and there can be no doubt that it was originally borrowed from there[9]. It is not surprising, therefore, that we must look to the same source for the origin of certain details in connection with the feasts: the *ceremonial paddles*, sometimes replaced by *eagle-feather wands*, and the *blowing of eagle down*[10]. The circular *jingle rattle* is another typical Northwest Coast element[11], and the same is true of the *hollow rattle*, which, however, is found outside the coast proper among many tribes of the Plateaux area[12]. There are no exact parallels to the *birdbone whistle* among the Eskimo, unless the Kodiak whistles mentioned by Davydov belong to this category[13]. On the other hand bone whistles, very often though not always made of bird bones, are common both on the southern part of the Northwest Coast and in northern

[1] Kodiak (Lisiansky 1814, 205). Tlingit (Holmberg 1856, 323. Kittlitz 1858, I 216. Krause 1885, 199. Niblack 1890, 270). Haida, Kwakiutl (Drucker 1950, 187). Nootka (Meares 1790, 254).

[2] Stählin 1774, 32. Coxe 1780, 112. Lantis 1946, 168.

[3] Coxe 1780, 155. Lowe 1842, 479. Hrdlička 1945. 135.

[4] Petri 1938, 8, 58. Morice 1890, 140. Fraser cited by Jenness 1932, 356 footnote.

[5] Osgood 1937, 111.

[6] Interior and Middle Columbia Salish, Okanagan, Coeur d'Alêne (Petri 1938, 55 ff, 59).

[7] Birket-Smith & de Laguna 1938, 145 f.

[8] Birket-Smith 1929, II 48. de Laguna 1934, 166. Cf. Friederici 1906, 11, 29.

[9] Cf. Birket-Smith & de Laguna 1938, 474: Quinault (Olson 1936, 112 f). Ahtena (Allen 1889, 265 f).

[10] Birket-Smith & de Laguna 1938, 475, 396.

[11] Birket-Smith & de Laguna 1938, 477. Add: Haida, Tsimshian (Drucker 1950, 198). Nootka (Drucker 1951, 106). Klallam (Eells 1889, 652). Aberrant forms of the same type occur among the Eyak (Birket-Smith & de Laguna 1938, 174 f) and Tanaina (Osgood 1937, 178).

[12] Tlingit (Portlock 1789, 282. Fleurieu, an vi, II 59. Krause 1885, 202. Volkov & Rudenko 1910, 45 f). Tlingit, Haida, Tsimshian, Bella Coola, Kwakiutl, Nootka (Niblack 1890, 331. Boas 1897, 439, figg. 209–12. Drucker 1950, 198). Nootka (Cook & King 1785, II 311. Jewitt 1896, 130. Drucker 1951, 106). Comox, Pentlatch, Nanaimo, Cowichan, Squamish, Sanetch (Barnett 1939, 251). Klallam, Chimakum (Eells 1889, 678). Makah (Swan 1870, 77 fig. 44). Tahltan (Emmons 1911, 44). Carrier, Thompson, Chinook (Ray 1942, 186). Carrier (Morice 1893, 118, 221). Tanaina (Osgood 1937, 177).

[13] Dawydow 1816, 185 f. Cf. Holmberg 1856, 408.

California as well as on the Plateaux[1]. Needless to add we also find them on the Plains and in other parts of North America.

Some Chugach games are widely distributed in North America, particularly in the northwestern parts of the continent. Thus, the *hand game* or stick game occurs nearly everywhere outside the Eskimo and southeastern areas[2]. As stated on a former occasion, *quoits* or partner game is an essentially western trait, which is found among the Alaskan Eskimo and some tribes on the Northwest Coast, in the Mackenzie area, and on the southern Plateaux[3]. *Shinny* has an even wider distribution than the hand game, covering all of the United States, southern Canada and the Pacific coast[4].

Certain purification rites, *viz. fasting, sweat baths, sexual abstinence,* and ritual *cleaning by means of smoke and plants,* are all typical Indian traits but essentially foreign to the Eskimo[5]. This also applies to *love magic*[6].

Elements of Local, Uncertain, and European Origin.

The use of a stuffed or blown-up sealskin as a *decoy* when hunting on the rocks is limited to the Pacific Eskimo. It is reported from Kodiak[7], but it is expressly stated to be unknown among the Indians on the Northwest Coast[8].

The *secondary arrow release* is, on the other hand, rather widespread, but so sporadically that no safe conclusions can be drawn from the distribution. Apart from the Chukchi, who use it occasionally[9], it is not known outside America, where it occurs among several widely scattered tribes[10]. Wissler has suggested that the secondary release might be a late outgrowth of the primitive, primary type[11], whereas Kroeber, while not entirely rejecting Wissler's view, points to the possibility that it is rather marginal in relation to the tertiary release[12]. The problem is, in fact, still unsolved.

The peculiar *throwing stick for stones* presents another puzzle. It has formerly been reported from the Eyak and the Crow River Kutchin, to which may now be added the Quinault; the Naskapi have a somewhat similar device, and it is possible that we have to do with an old element related to the ordinary throwing board[13].

Two-hole baidarkas are the result of a local development among the Aleut and Pacific Eskimo, whereas the three-hole craft is, as formerly mentioned, a Russian invention. The *siphon* used for sucking up water that has penetrated into the baidarka is known from the

[1] Nootka (Jewitt 1896, 130). Tillamook, Alsea, Siuslaw, Coos, Tututni, Tolowa (Barnett 1937, 174). Alsea (Drucker 1939, 89). Tolowa, Karok, Yurok, Wiyot, Hupa, Chilula, Sinkyone, Kato (Driver 1939, 338 f). Shasta, Achomawi, Atsugewi, Wintun, Maidu, Nisenan (Voegelin 1942, 94). Carrier (Morice 1893, 81). Lillooet (Teit 1900–08 a, 588). Shuswap (Teit 1900–08 b, 588). Coeur d'Alêne (Teit 1930, 165). Klikitat, Umatilla, Flathead (Ray 1942, 186). Kutenai (Chamberlain 1893, 561). Nez Percé (Spinden 1908, 231).

[2] Birket-Smith & de Laguna 1938, 481. Birket-Smith 1929, II 120. Add: Comox, Pentlatch, Nanaimo, Squamish, Sanetch (Barnett 1939, 252). Tillamook, Siuslaw, Coos, Sixes, Tututni, Galice, Chetco, Tolowa (Barnett 1937, 175). Flathead, Tenino (Ray 1942, 184). Quinault (Olson 1936, 130 f). Karok, Yurok, Wiyot, Chilula, Nongatl, Mattole, Sinkyone (Driver 1939, 340). Nisenan (Voegelin 1942, 99).

[3] Birket-Smith & de Laguna 1938, 481. Add: Siuslaw, Sixes, Galice, Chetco, Tolowa (Barnett 1937, 175). Klamath, Modoc, Wintun, Maidu (Voegelin 1942, 97). Ute (Stewart 1942, 292).

[4] Culin 1907, 622. Wissler 1926, 16. Birket-Smith & de Laguna 1938, 482. Add: Northwest Coast (Drucker 1950, 199. Barnett 1939, 252). Washington and Oregon (Barnett 1937, 175). Plateaux (Ray 1942, 182).

[5] Birket-Smith & de Laguna 1938, 485 f.

[6] Birket-Smith & de Laguna 1938, 490.

[7] Holmberg 1856, 396.

[8] Drucker 1950, 234.

[9] Bogoras 1904–09, 155.

[10] Tahltan (Emmons 1911, 67). Tsetsaut (Boas 1895, 563). Satudene (Osgood 1933, 61 f). Chipewyan (Birket-Smith 1930, 20). Karok (Driver 1939, 327). Ute, Paiute (Stewart 1942, 268. Stewart 1941, 385). Seneca, Ottawa, Zuñi, Tarahumare (Kroeber 1927, 291).

[11] Wissler 1926, 37 ff.

[12] Kroeber 1927, 291, 295.

[13] Birket-Smith & de Laguna 1938, 479. Olson 1936, 77.

technique is old among the Chugach. The question must remain open till further excavations have been carried out.

The occurrence of the *axe* presents another unsolved problem. There are only very few examples of true axes among the Eskimo, and those described from the northern Indians including the Eyak are all more or less doubtful[1]. In East Asia simple celts are found as far north as Manchuria and Japan, and grooved axes occur in Shantung and on Sakhalin[2], but it is not very likely that either of these types have any connection at all with the American axe.

I know of no exact parallels to the *spruce-bark tanning* of the Chugach. Dyeing by means of alder bark is known in the marginal regions of the Eskimo area[3] and is probably a Neo-Eskimo trait. It occurs also among the Coast Salish[4], and soaking or boiling of the skins with alder bark is found among the Plateaux tribes[5]. Alder bark is widely used for skin dyeing in northeastern Asia, and the Chukchi use larch bark for the same purpose[6]. Hatt mentions the use of alder bark from the Tungus, Yakut, Buryat, and Lapps, whereas the Asiatic Samoyed rub the skins with bark that for some time has been soaked in water, and the Lapps tan the skins with willow or birch bark before the dyeing process proper[7]. Hatt is probably right in believing that the use of vegetable materials in the preparation of skins was primarily a dyeing method[8], but so far it seems impossible to fit the Chugach procedure into the historical development.

The peculiar *sewing implement* described on p. 78 is sure to be of Russian origin, though it was apparently adopted indirectly via the Aleut. A somewhat similar device was employed on Kodiak[9].

It is not unlikely that *roasting of meat on a spit* is an Indian cooking method adopted by the western Eskimo; outside the Eskimo area it is extremely widespread and apparently very old[10]. *Smoking of meat and fish* is at all events intrusive among the Chugach as it is among other Eskimo[11], and if we may believe Portlock it was still unknown at the time of the discovery. Whether it was borrowed from the Indians or the Russians is difficult to tell. If it is really post-contact the latter supposition is, perhaps, the most likely, but Portlock may not be absolutely to be depended upon in this case, and if so we may rather suspect Indian influence.

Within the social culture of the Chugach there are also some elements of problematic origin. Our information about *partnership* is too scanty for drawing any conclusions[12]. The same applies to the remarkable custom of *greeting with weeping and lamentations*. Friederici mentions it from several South American tribes, from the Mississippi region and probably from the Caddo and Santee Dakota[13]. It is, however, also found among the Chipewyan and Loucheux[14] as well as in West Greenland and among the Netsilik Eskimo[15]. It seems safe to assume that our information regarding the distribution of this

[1] Birket-Smith & de Laguna 1938, 406 f. Add: Aleut (Hrdlička 1945, 441). Ingalik (Osgood 1940, 96 ff).

[2] Leroi-Gourhan 1946, 183. de Laguna 1947, 156.

[3] Bering Strait (Nelson 1899, 117). Labrador (Speck 1935, 10). West Greenland (Cranz 1770, I 220. Glahn 1921, 159 f. Birket-Smith 1924, 104 f). East Greenland (Thalbitzer 1914, 506).

[4] Comox, Cowichan, Sanetch (Barnett 1939, 234).

[5] Carrier, Shuswap, Coeur d'Alêne, Umatilla, Tanino, Chinook (Ray 1942, 126). Chilcotin, Shuswap (Teit 1900–08 b, 476, 764). Coeur d'Alêne (Teit 1930, 46).

[6] Chukchi (Bogoras 1904–09, 219, 221). Koryak (Jochelson 1905–08, 628 f). Yukagir (Jochelson 1926, 430). Kamchadal (Kracheninnikow 1770, I 55. Steller 1774, 111).

[7] Hatt 1914, 31 f.

[8] Hatt 1914, 29, 33.

[9] Birket-Smith 1941, 157 f.

[10] Birket-Smith & de Lagina 1938, 442 f.

[11] Birket-Smith & de Laguna 1938, 444.

[12] Birket-Smith & de Laguna 1938, 460. Add: Mackenzie Eskimo (Petitot 1887, 137 f).

[13] Friederici 1906 a, 32 f.

[14] Hearne 1795, 332 f. Simpson 1843, 100.

[15] Egede 1741, 84. Rasmussen 1931, 204.

custom is very fragmentary and that it is in reality much more widespread than it appears from these scattered observations.

As mentioned formerly (p. 223) the large *war screens* are probably local derivations of the ordinary shield. The *Victory Feast* is probably also a more or less local trait, for it is doubtful whether it has any connection with the scalp dances of the Indian tribes farther to the south. It seems rather to combine some elements of the ordinary Feast of the Dead with certain purification rites. True victory feasts do not otherwise exist among the Alaskan Eskimo in spite of the fact that their warfare consisted of organized raids[1]. The *Bladder Festival*, on the other hand, is well known among the Eskimo south of Bering Strait—as well as among the Ingalik[2]—although the Chugach pattern has a much more faded appearance than the elaborate ritual at the Bering Sea. This may be either because many of the details have been forgotten now or, what seems more likely, because Prince William Sound is marginal to the ceremonial centre, which, according to Margaret Lantis, is located on the coasts of the Bering Sea[3].

The wooden *membrane whistle* is an element the sporadic distribution of which prevents us from drawing further conclusions. It occurs among a few Eskimo tribes and among the Chukchi[4], and has also been described from some Indian tribes of the Boreal Woodlands[5]. According to Sachs it is known on Vancouver Island and is found sporadically in other continents[6]. The same principle is employed by some other tribes in a more primitive way, when they place a leaf of grass between the thumbs as a decoy for calling game[7].

A parallel to the *stick-tossing game* of the Chugach is found at Bering Strait and, in an aberrant form, among the Aleut[8]. The "jackstraws" of the Haida[9] is somewhat different but may be a related form. The Tlingit have a game in which bundles of grass are rolled on the ground, the participants in the game trying to catch them by means of short sticks[10], and perhaps we are entitled to see a connection with the Chugach *grass-bundle game.* Finally, something like the *rock game* is found among the Tanaina, of whom we are told that "sometimes stones are thrown at a stick. Each man has two stones and he wins two points every time he knocks down the stick"[11]. Games like *hide-and-seek, blind man's buff*, etc. may very well be original among the Eskimo, but at present it is impossible to determine in which cases they are genuinely American, and when they are imported from the outside[12].

The idea that witchcraft can be broken by *pointing with a bone* towards the sorcerer presents a very interesting but, unfortunately, so far unsolvable problem. Róheim, who has studied the use of the pointing bone for agressive magic, refers to two centres of distribution: Australia and America[13]. His discussion deals, however, mainly with the Australian concepts, and only a few, scattered examples are given from North America, for instance from the Northwest Coast, Blackfoot, Iroquois, Cheroki, and Choctaw. Besides, he cites Bogoras for the occurrence of the same idea among the Chukchi, but I have been unable to locate his reference. In West Greenland, however, it is told of a certain race of fabulous

[1] Cf. Lantis 1947, 34 f.
[2] Osgood 1940, 433, 457.
[3] Cf. Lantis 1947, 113 ff.
[4] Chukchi (Nordenskiöld 1870–71, II 134). Chukchi, Asiatic and Mackenzie Eskimo (Bogoras 1904–09, 398, 402). West Greenland (Birket-Smith 1924, 355). East Greenland (Thalbitzer 1914, 470).
[5] Beaver (Goddard 1916, 214). Cree, Penobscot, Naskapi (Birket-Smith 1930, 25 f).
[6] Sachs 1929, 19.
[7] Cf. Spier & Sapir 1930, 181. Osgood 1937, 121. Ray 1942, 187.
[8] Nelson 1899, 332. Jochelson 1933, 63.
[9] Culin 1907, 730.
[10] Swanton 1908, 445.
[11] Osgood 1937, 125.
[12] Cf. Birket-Smith & de Laguna 1938, 480.
[13] Róheim 1925, 90.

dwarf beings, the *inuarugdlikat*, that they have a peculiar "pointing weapon", and whenever they direct it towards the game it falls dead immediately[1]. As will be remembered, similar dwarf beings with practically the same name appear in Chugach folklore, and we also find them among the Copper, Netsilik, Iglulik, and Baffin Island Eskimo, but nowhere do we find any allusions to "pointing weapons"[2]. On the other hand, the Iglulik Eskimo have the custom when a whale is observed to point at it with the third finger of the right hand[3]. To this may further be added that the hero in a Loucheux tale "*avait fixé des os aigus à la pointe de ces raquettes, comme deux cornes*" and by this means he breaks the spell of his enemies[4]. Thus, the magic pointing is no doubt based upon a very old and widespread idea, but how it was acquired by the Chugach is at present impossible to know.

The Chugach share the peculiar cikmiq *amulet* with their kinsmen on Kodiak[5]. It must be identical with both the "lucky stone" which is considered to be a living being and is fed with red ochre by the Tanaina[6], and with "*der unter den Namen* tschimkich *bekannte Stein, der nur zuweilen von der See ans Ufer gespült wird*" of the Aleut[7]. According to Holmberg the object is a tropical fruit ("sea bean") which locally has been put to magic use on account of its rarity and extraordinary appearance.

The Building of Chugach Culture.

We have now examined 278 elements of Chugach culture, *i. e.* all the available material except mythology that would call for a specific investigation. The total of 278 should not, of course, be taken too strictly, for it is always to some degree a matter of opinion if a trait shall be considered an "element" or not, and not all elements are of the same cultural value. The number may, however, be taken as a rough estimate. Within the total amount the elements are distributed as follows:

Paleo-Eskimo	118	(ca. 42.4 pct.)
Neo-Eskimo	34	(- 12.2 -)
Other circumpolar	11	(- 4.0 -)
Circumpacific	32	(- 11.5 -)
Northwest American	49	(- 17.6 -)
Local South Alaskan	8	(- 2.9 -)
Uncertain	21	(- 7.6 -)
Post-Russian	5	(- 1.8 -)
Total...	278	(100 pct.)

Even if we leave the "uncertain" and post-Russian groups out of consideration this clearly shows that the building of Chugach culture is extremely complicated, probably even more so than that of the majority of Eskimo tribes.

In the preceding analysis we took our starting point in Eskimo conditions. It still remains to investigate how our results fit into the general scheme of cultural development in the arctic and subarctic regions. By this means we may hope to throw some light upon

[1] Rink 1868, 219. Birket-Smith 1924, 228 f.
[2] Cf. Boas 1888, 640. Jenness 1924, 84. Rasmussen 1931, 255. Rasmussen 1929, 212.
[3] Boas 1907, 499.
[4] Petitot 1886, 74. This reminds of the *manus cornuta* and *manus fica* of Roman antiquity as magic means to ward off evil.
[5] Lisiansky 1814, 209. Holmberg 1856, 395. Petroff 1884, 143.
[6] Osgood 1937, 175 f.
[7] Lowe 1842, 481.

the prehistory not only of the Chugach in particular, but to some extent on the cultural sequence of the circumpolar zone as a whole.

The first step towards establishing a cultural stratification here was taken by Hatt when he pointed out how the winter existence of the circumpolar inland hunters and reindeer nomads depended upon the use of snowshoes and skis[1]. Before the invention of the snowshoe, life was connected with the coasts and rivers, and the culture of the Eskimo was interpreted as a specialized form of this early coastal type of life. Hatt's hypothesis has been adopted and elaborated for instance by Hallowell, de Laguna, and the present author, who suggested that the terms Coast and Inland culture of Hatt should be replaced by the less ambiguous names Ice-hunting (or Ice-fishing) and Snowshoe cultures, thus emphasizing the most fundamental features of winter life.

Recently, however, the whole foundation of this view has been subjected to criticism by the late Father Cooper[2]. He argues first that the continuous distribution of the snowshoe over northern Eurasia and North America is only apparent, because we have really a great number of basically different types, and secondly he maintains that snowshoes are also known elsewhere in the world where nothing like a "Snowshoe culture" exists. It is possible—though I have my doubts—that one or two of the snowshoes employed in the mountainous parts of southern Europe may have arisen independently; but for the rest it seems clear that there are only two basically related, but in time highly specialized and divergent types: a crude netted or ladder type and a plank type. The former reached the peak of development in North America, although primitive forms still survive in sequestered places of the Old World, where otherwise the plank snowshoe in its most highly developed form, the ski, gained the upper hand. It is quite natural that the oldest and most primitive forms, which must have been separated for millennia, are also the most aberrant. Moreover, we find everywhere in the circumpolar zone the same characteristic hunting method combined with the snowshoe, *viz.* the running down of the game in the soft winter snow. Thus, in spite of Father Cooper, it seems safe to uphold the theory that at least within the circumpolar zone all snowshoe types are mutally related.

As for his second point, Father Cooper's idea seems to be that some sort of snowshoe must necessarily arise wherever it proves useful. However, outside the circumpolar regions he mentions but two instances, from the Pehuenche and Ona respectively, who wear a sort of grass clogs or tie small bundles of twigs under their sandals when walking in deep snow. However, I fail to see any connection between these makeshifts and snowshoes in the proper sense of the word. On the other hand, Father Cooper ascribes the lack of snowshoes among the Wachagga at Mount Kilimanjaro and the Maori of New Zealand to the facts that the economic activities of the former do not take them into the upland snowfields, while the Maori usually avoid the snowclad mountains for magico-religious reasons. Of course this may be true to some extent, but it also proves that the invention of a snowshoe is far from being an obvious thing.

Theoretically there must have been a period throughout the circumpolar zone when the snowshoe was unknown. If then the country was inhabited at all, no other way of winter subsistence was available for the population than fishing on the ice of the lakes and rivers. Traces of a basic stratum like this are still to be found in North America in northern California and the southern Algonkian regions; on the Plateaux and in the Great Lakes areas there seems to be a blend of Ice-fishing and Snowshoe culture traits, whereas

[1] Hatt 1914. Hatt 1916. Hatt 1916 a. Hatt 1919. [2] Cooper 1946, 280 ff.

on the Northwest Coast and among the Eskimo we meet with forms so modified by local development and foreign influences as to be scarcely recognizable[1]. All the areas mentioned are again marginal to the boreal forest zone where the typical Snowshoe complex is prevalent. I see no reason, therefore, to abandon a view which, in my opinion, gives the best explanation so far of the ethnological facts at hand. I readily admit, however, that the slight influence of the Snowshoe culture on both the Northwest Coast and Eskimo cultures is not due to historical conditions alone but probably to a still greater extent to geographical factors. It seems reasonable to believe that in both cases specialization and adaptation to the local environment set in at so early a period that an essential inland complex like the Snowshoe culture was unable to have any deep-going influence upon them. This is further strengthened by archeological evidence showing that both the Paleo-Eskimo and the Neo-Eskimo must have had some slight contact with peoples on the Snowshoe stage. We shall revert to this point presently.

As shown by Hatt, the culture of the Eskimo as a whole is primarily a specialization of the Ice-fishing stage. Despite all later modifications, the life of the Inland Eskimo, particularly that of the Caribou group on the Barren Grounds, may still present at fairly adequate picture of the mode of living on this primitive level[2]. Archeological proof of the Proto-Eskimo culture did not exist, however, till the recent excavations of Giddings and Helge Larsen, at Cape Denbigh and Trail Creek respectively, brought to light a pre-Ipiutaq flint complex with affinities both to the Ipiutaq proper and to certain Folsom and Yuma types as well as to the Old World Mesolithic and Upper Paleolithic[3]. Thus, the Proto-Eskimo stage seems to belong to an old and widespread series of circumpolar cultures probably ultimately derived from the Late Aurignacian of Siberia[4].

The Paleo-Eskimo culture is an outgrowth of the Proto-Eskimo horizon. Here again many, if not most, of the distinguishing features are probably of Siberian origin. This is true, for instance, of the chipped stone implements, which are closely related to the Mesolithic and Neolithic of the Baikal region[5], and it may also apply to some sealing methods (hunting in open water, hunting of seals basking on the ice and possibly hunting at the breathing holes, too), which mean the first approach of the Eskimo to the sea. Sealing at the breathing holes may, on the other hand, also be an original Dorset or Dorset-Thule trait and while thus, perhaps, still of Paleo-Eskimo origin, it is possible that it did not spread to the Pacific group till comparatively late. The undivided harpoon socket piece may be another late intrusion of a type originally belonging to the northern form of Paleo-Eskimo culture.

All Paleo-Eskimo elements with one or two exceptions belong to the Ice-fishing culture or are directly derived from it. The greater part have an extraordinary wide distribution in the circumpolar zone or are of such simple character that for this reason they must be supposed to be very old, while others, such as toggle harpoons, throwing boards, sinew-backed bows, the poncho cut of garments, lamps, "owner" concept, etc., occur mainly in the western parts of North America and may be later intrusions there. Two Paleo-Eskimo elements, both of which occur among the Chugach, cannot be included among the Ice-fishing traits, however: the wooden snowshoe and the two-handed scraper made of

[1] Birket-Smith 1918, 215 ff. Krause 1921, 64 f. Birket-Smith 1929, II 213 ff. Birket-Smith & de Laguna 1938, 531 ff.

[2] Birket-Smith 1929, II 123 ff, 219 ff. Birket-Smith 1950, 150 f.

[3] Giddings 1950, 194 ff. Larsen 1951, 70 ff, 88 ff.

[4] Cf. Bandi 1949–50, 85.

[5] Collins 1945.

a split tubular bone. Both of them belong to the Snowshoe complex, and this is, of course, highly suggestive, for it seems to indicate that even the Paleo-Eskimo had some slight contact with peoples on the Snowshoe stage.

The Neo-Eskimo elements of the Chugach are far less numerous than those of the Paleo-Eskimo group, a fact which to some extent also applies to the Eskimo as a whole. Most of them were evidently introduced from the Old World, but they do not constitute a homogeneous complex. Many of them occur over large areas in northwestern North America and northern Eurasia and may be ascribed to a late phase of the Ice-fishing stage, as for instance polished slate implements, nets, etc. The source of harpoon whaling is uncertain, but it is sure to be an Old World invention. However, as in the Paleo-Eskimo culture so also in that of the Neo-Eskimo a few elements are evidently derived from the Snowshoe complex. At least this applies to the toboggan and to hair embroidery. Besides, there are some elements which cannot be classed in either the Ice-fishing or the Snowshoe cultures, as for instance arrow feathering of three feathers, bow and strap drills, thimble, and the concept of spirit intrusion. The sail must have reached the Eskimo from East Asia, and the same may be the case of the sea-mammal drive. From the preceding analysis it will appear that many Neo-Eskimo elements of Asiatic origin occur on the Northwest Coast, too, but besides there are a few which may actually have originated there: the harpoon float, urine tanning (which, however, is probably related to the far more widespread custom of washing in urine), rectangular boxes, etc. Finally one or two elements are evidently Eskimo inventions, for instance gutskin coats and window panes.

It is not surprising that some late Asiatic intrusions have found their way to the Chugach, such as the torsion trap and the belief in spirits having a pointed head[1]. Much more remarkable is the fact that we find so many Snowshoe culture elements which otherwise do not occur among the Eskimo. Some of them are also found among the Eyak, and one or two, for instance the springpole snare, may be known to this tribe but have escaped our notice. Others, however, are rather certain to be foreign to the Eyak: fish weirs of wooden stakes, folded bark containers, the carrying cradle, and the apology to the bear before killing. It is at present, I believe, impossible to decide when and whence these Snowshoe elements were adopted by the Chugach. The probability is that they arrived at different times and from different sources. Some may have come from the Northwest Coast, in the first instance those which the Chugach share with the Eyak, but also the apology in bear hunting, which corresponds rather closely to the Tlingit custom. In other cases, however, this route of travelling is unlikely. Thus, folded bark vessels are rare on the Northwest Coast, where they are known only from the Tsimshian. The Chugach cradle is, to be sure, of the same general type as the Northwest Coast cradle but is more like that of the Aleut, and as far as we know, the Eyak never used cradles but were content to place the new-born infant in a basket.

The circumpacific elements occur, as the term implies, on both sides of the Ocean, but here again it is evident that we have to do with a heterogeneous group. Some of them are definitely of Asiatic origin, for they are found in the Old World not only along the northern shores of the Pacific but also far to the south, whereas their distribution on American soil is often rather restricted. Here I refer to such elements as poisoned-lance whaling, the conical hat, slat armour, etc. Other traits, however, were no doubt adopted from the

[1] Here it is worth noticing that the Chugach word for spirit, kaʟa·q or kaʟagaq, is identical with the Chukchi and Koryak terms (*kele, kala*).

Tlingit even though they may ultimately have spread from Asia, for instance the plank house, which was used neither by the Kodiak Eskimo nor by the Aleut, and the zoomorphic vessels, which have undergone a special development on the Northwest Coast. In other cases again it is impossible to decide whether the elements originated on the Asiatic or the American side of the Ocean.

Like the circumpacific so also the Northwest American group comprises elements of different origin. A few are extremely widespread and must be of very great antiquity in the New World, for instance the earth oven, shinny, etc., but seem to have reached the Chugach from the Northwest Coast. Most of them, however, are characteristic only of the northwestern parts of the continent. Nevertheless some may originally have spread from Asia. Thus, the beaver-tooth knife may well have occurred in Siberia before iron came into general use, and distant parallels to the bark-stripping wedge are still to be found in Eurasia. I have also some doubt as to whether the splitting adze is of American origin. The avunculate is, of course, linked with the matrilineal descent on the Northwest Coast, but it is not improbable that the matrilineal organization here is rooted in an old pre-Chinese culture[1]. Even the secret society, head trophies, and *potlatch* institution may have Old World affinities. The netted snowshoe of the Chugach is included among the Northwest American elements as it is fairly certain that it is an imitation of the Athapaskan type.

Both the circumpacific and the Northwest American elements are of paramount importance to Chugach culture, because they have to a very considerable degree impressed it with a distinct stamp that sets it apart from the typical Eskimo pattern. In this respect it is significant that taken together they amount to nearly one third of the total number of elements, whereas the Paleo- and Neo-Eskimo elements come to little more than one half. While it is clear that they have arrived by different routes and at different times, most of them nevertheless seem to be rather recent among the Chugach. This assumption is founded on both direct archeological and indirect, distributional evidence. Examples of the first kind we have in the case of the splitting adze and the stone saw. Distributional evidence is offered by the fact that comparatively few circumpacific and Northwest Coast elements were absorbed into the Neo-Eskimo culture and carried eastwards with the Thule migration. This would suggest that the majority of these elements were later among the Eskimo than the rise of the Neo-Eskimo culture, and this view is furthermore corroborated if, as seems plausible, there are traces of the Neo-Eskimo harpoon-whaling complex among the Chugach besides the recent poisoned-lance method.

We may now summarize the cultural history of the Chugach as follows. Basically it is an Eskimo culture and thus deeply rooted in the old circumpolar Ice-fishing stratum. We find among the Chugach an impressive array of Paleo-Eskimo elements which form the foundation of all later development. Dr. de Laguna has suggested a specific affinity between Pacific Eskimo and Dorset types[2], and the conformities are, indeed, striking, but as the Ipiutaq culture with its highly specialized art can hardly represent the first Paleo-Eskimo stage in Alaska north of the Peninsula I should not be at all surprised if one day a more Dorset-like Alaskan Eskimo culture was discovered that would link the Pacific region with the eastern Arctic. So much is certain, however, that some ancient Paleo-Eskimo traits have survived on the Pacific coast, as for instance the small blubber lamps, stone boiling (?), the partiality for barbed harpoon heads (which must have been

[1] Cf. Gahs 1929. Koppers 1930. Eberhard 1936.

[2] de Laguna 1947, 13 & *passim*.

further strengthened by the introduction of barbed harpoon arrows from the Northwest Coast), certain crude linear designs, plank-lined graves, death masks (?), and the custom of erecting a pole at the grave. It is possible that the long hood-less fur coat should also be included here, but on the other hand this type may be associated with the use of small animals' skins, which is apparently a circumpacific trait.

Superimposed upon the Paleo-Eskimo layer is the Neo-Eskimo complex. In fact, we find here all its most distinguishing elements: harpoon whaling, umiaq and sail, nets, polished slate implements, gutskin, bow and strap drill, urine tanning, etc. There is but one important exception, *viz.* pottery, which does not occur on the Pacific coast east of Kodiak. However, pottery has a peculiar position within the Neo-Eskimo culture. The crude arctic type, which is found from Bering Strait to Hudson Bay but is lacking farther east, is related to the so-called comb-ceramic ware of northern Eurasia. In South Alaska, on the other hand, we find a different type, derived, perhaps, from the pottery of the Japanese Stone and Stone-Bronze Age (cf. p. 180).

All things considered it seems safe to conclude that the culture of the Chugach is fundamentally Eskimo. This is in accordance with the archeological results from Cook Inlet set forth by Dr. de Laguna. I have formerly expressed the opinion that the Pacific Eskimo and the Aleut were descendants of a foreign, Eskimoized stock[1], but this view can no longer be upheld after the present analysis.

If, however, it can thus be stated that the culture of the Chugach is built upon Eskimo foundations, it must also be emphasized that like that of the other Pacific groups it occupies a remarkably isolated position and has only to a slight degree taken part in the development which took place at Bering Strait. There are no traces of the northern art styles characteristic of the Ipiutaq, Okvik, and Old Bering Sea phases. The Neo-Eskimo complex south of the Alaskan Peninsula has a somewhat faded or, perhaps, better a generalized appearance. Collins derives with good reasons the modern art of the Yukon-Bristol Bay region from the Punuk[2], and disintegrated Punuk designs occur at least on Kodiak. This might indicate that the Punuk phase is responsible for the spread of the Neo-Eskimo culture to the Pacific Eskimo, but the full answer cannot be given before their archeology is better known than at present. Of the Thule "backwash", which affected the culture of North Alaska to such a marked degree, there are no indications at all.

The Pacific Eskimo, including the Chugach, were, however, subject to very strong influences from the outside. A few Snowshoe elements may have filtered in from the interior, while other Snowshoe traits, which do not occur among the Eskimo outside the Pacific group, probably came in a round-about way from the Northwest Coast. The majority of influences, however, are of either circumpacific or Northwest American origin, but even the first-mentioned category seems, for the greater part, to have spread from the Northwest Coast. These influences must have begun to assert themselves even before the Thule migration to the east (urine tanning), but as a whole they belong to a rather recent period. Nor can poisoned-lance whaling be very old, as it has replaced a typical Neo-Eskimo hunting method like harpoon whaling.

Another point of importance which results from our analysis is the fact that the outside influences have not taken place in definite waves. On the contrary, both the American Northwest Coast and Asia have rather acted as steadily flowing sources from which the

[1] Birket-Smith 1929, II 229.

[2] Collins 1937, 288.

elements have slowly trickled to the Chugach during long periods, culminating in the last few centuries.

The general outcome of our research must be that the culture of the Chugach, and probably to some extent of the Pacific Eskimo as a whole, is essentially an Eskimo culture based upon both Paleo- and Neo-Eskimo foundations, with some archaic and a few local or at least South Alaskan traits, but highly modified by foreign influences, some of which spread from the interior of Alaska and others directly from Asia, while the majority was derived from the Northwest Coast of America.

APPENDIX I

LINGUISTICS

Phonetics.

Although linguistic work did not enter into the plans of the expedition and no one of our party had any special linguistic training, I took the opportunity of compiling a short word list on the same lines as those of my comparative vocabulary of Greenland and Central Eskimo dialects[1]. The symbols adopted in recording the present notes are essentially the same as those used by Thalbitzer in *Handbook of American Indian Languages* and very nearly like the system employed by *l'Association phonétique internationale.*

The phonetic system of the dialect spoken in Prince William Sound is typically Eskimo. As far as I can see there is not a single sound which does not occur in other Eskimo dialects. As might be expected the closest affiliation seems to be to those of the Bristol Bay-Lower Yukon region, characterized *i. a.* by some consonant clusters unknown in the eastern Eskimo area, and by the dropping of the vowel "i" in certain combinations, in which case, however, a faint "ə" is often heard between a "k" and a following consonant, *e. g.* kᵊnɪq, fire (Polar Eskimo: iŋnɛq). Another characteristic is that the surd "ʀ" is often substituted for the voiced "r" of the eastern dialects. There are also tendencies towards replacing the semi-closed vowels "e", "ɛ", "o", and "ɔ" of the eastern dialects with their more closed equivalents "ɪ", "ɪ", "ʊ", and "ʊ", and towards reducing the clear vowels in unstressed syllables to an indistinct "ə". As a rule the vowels are uvularized before the uvular consonants "q", "ɾ" and "ʀ", but it seems often to be somewhat less pronounced than elsewhere among the Eskimo. Nasalized vowels I have only noticed in the case of an "a" before a nasal consonant, and besides, this was apparently an individual more than a typical trait. On the other hand "k" was distinctly nasalized when occurring in a similar position. A voiced fricative (ʒ) appeared only once, *viz.* in the Russian loan-word for scissors: nʊ·ʒicuq (ножницы).

The phonetic system is as follows:[2]

Consonants	Plosives		Fricatives		Nasals	Semivowels
	Unvoiced	Voiced	Unvoiced	Voiced		
Bilabial	p	—	f	v	m	w
Dental	t	—	s	—	n	—
Palatal	c	—	ʃ	(ʒ)	—	j
Velar	k	—	h x	ɣ	ŋ	—
Uvular	q	—	ʀ	ɾ	—	—
Lateral	—	—	ʟ	l	—	—

Vowels	Open	Semi-open	Semi-closed		Closed	
			not rounded	rounded	not rounded	rounded
Normal	a	ä ə	e ɪ	o ʊ	i	u
Uvularized	ᴀ	—	ᴇ ɪ	ɔ ʊ	—	—

[1] Birket-Smith 1928.

[2] In the text I have used a simplified system for the recording of names, whether geographical, tribal, or personal: sh = ʃ, ty = c, kh = x, gh = ɣ, rh = ʀ, ng = ŋ. The vowels are a, e, i, o, and u. Length of sounds is not indicated.

An exponent denotes a faint glide towards the sound of the exponent or a very faintly articulated and, therefore, scarcely audible sound.

Regarding the pronunciation the following particulars may be added:

a: as in French *aller*; "au" and "ai" are always diphtongs.
ɑ: the uvularized sound corresponding to "a", as in English "far".
ä: most frequently as in English "hat", but at times approaching ordinary "a".
c: palatal "t".
e: as in French *été*.
ɐ: uvularized "e".
ə: like "e" in German *bitte* and "a" in English "above".
f: bilabial sound, different from English and French labiodental "f".
ɡ: a voiced, fricative sound, corresponding to the unvoiced "x", as in North German *Regen*, Danish *age*, or Russian когда.
h: intermediate between "x" and the simple expiration of English "h"; pronounced with a slight velar contraction.
i: as in French *ici*.
ɪ: intermediate between "i" and "e".
ɪ: uvularized "ɪ".
j: as English "y" in "yard", Danish and German "j".
k: faintly aspirated sound as in French *cas*.
ƙ: nasal stop, an intermediate sound between nasalized "h" and "k".
l: as in French *aller*, different from the "hollow" English sound in "always" and from Russian л. Sometimes it is preceded by a faint d-sound.
ʟ: unvoiced "l".
m: as in English "man".
n: as in English "no".
ŋ: as "ng" in English "sing.".
o: as French *eau*.
ɔ: the uvularized sound corresponding to "o".
p: faintly aspirated sound as in French.
q: uvular "k".
r: uvular, untrilled sound as in Danish and North German, but very different from the English point "r" and the Parisian trilled "r".
ʀ: unvoiced sound, as "ch" in German *ach* or Scottish "loch".
s: as in English "sing.".
ʃ: an unvoiced palatal sound, somewhat different from English "sh", although probably more like it than the corresponding Central Eskimo and Greenland sound.
t: faintly aspirated sound as in French.
u: as Danish and German "u", French *ou*.
ʊ: intermediate between "o" and "u".
ʊ: uvularized *ʊ*.
v: bilabial "v", different from the English and French labiodental "v".
w: as in English "wing".
x: unvoiced sound corresponding to ɡ, as in German *ich*.

The length of a sound is expressed by an inverted period (·) after the sign in question. As in other Eskimo dialects the quantity is of essential importance, whereas the dynamic accent plays a minor part and is often but slightly differentiated, although there is a tendency to stress long vowels, vowels before a long consonant, and the final syllable.

Vocabulary.

Universe and Division of Time.

Air; breath: anɛr·ɪnɛq.
Amber: aumaq.
Autumn: ukʃuaq.

Bay: kaŋɪrquluk.
Beach: quta.
Birds' nest: uŋlo.
Breathing hole (of seal): ukɪ·tlɪq.

Cave: ᵊŋilo.
Cloud: amirəluq.
Copper: kanuaq.

Day: ər·ᵊnaq.
Daylight: arTuq.
Drop: kʋcɪq.

Evening: akxʋaq.

Fire: kᵊnɪq, ķnɪq.
Fog: taituk.

Hail: kauktɪ·t.

Ice (both fresh and salt water): cɪkuq.
Iron: ut·iʋq.
Island: qɪqᵊrtuaq.

Land: nuna.
Lightening: naniaq.

Moon: tanrɪk.
Mountain: ɪŋɪq.
Mountain top: kakķna.*
Morning: un·ʋaq.

Naze: ciŋiknəq.
Night: unuk.
Northern light: kiʋgriat.

Path: apʀun.
Pumice stone: maŋɪ·ᵍlu·n.

Rain: qɪtəq.
River: kuik.
River mouth: kʋim-paiŋa.

Salt: ta·xaɔq.
Sand: qauʷɪaq.
Sea: imaq.
Season: iti·uaq.
Sky: qiläk.
Slope: pķnaq.
Smoke: apʃuq.
Snow (falling): qaniq.
Snow (on ground): nata·riq.
Soot: kek·lula.*
Sound: anʀ·caq.
Spring: iciguaq.
Star: mitaq.
Stone: ja·maq.
Summer: kiak.
Sun: macaq.
Swamp: məc·uuq.

Thunder: kalɪq.

Universe: ᵗla.

Water (fresh): muq.
Water (salt): ta·rᵊjuq.
Wave: qailik.
Wind: aqlaq.
Wind, E.: kanak·əq.
Wind, ENE. (?): kanak·əm-kilɔqlɪa.
Wind, N.: klʋ·gaq.
Wind, NE.: ja·kəq.
Wind, NNE. (?): täikʃarᵊnɛq.
Wind, NNW. (?): ɹʃarᵊnɛq.
Wind, NW. (?): ta·tɪlɛrᵊnɛq.
Wind, S.: wɔ·rkɛq.
Wind, SE. (?): wɔ·rʋnɛq.
Wind, SW. (?): qʋ·aq.
Wind, W.: nigəq.
Wind, WNW. (?): qʋkərɪnɛq.
Winter; Year: ukʃuq.

Plants.

Alder: uqʰvik.
Algæ (different sp.): caralqät, caralarpagät, ɪ·rut, kala·gät, cauqarälqɪ·t.

Bark: akulpaq.
Bark, cambium layer: kiᵈli·t.
Beach pea: kulu·xiät.
Blackberries: pak·ɪ·t.
Blueberry: ɔqɔrolɪ·t.

Celery, wild (?): cɪŋkat.
Cinque-foil (cf. Dandelion): ciLqaqutaq.
Cloud berries: cu·rät.
Cow parsnip: uqju·tɪt.
Crab apples: luku·luxpit.
Cranberries, high-bush: qala·kuät.
Cranberries, mountain: kɪnɪx·ta·t
Crowberries: pak·ɪ·t.
Currants, red or black: quni·sit.
Currants, white: uqo·niliŋʋt.

Eel grass: cu·laguit.
Elder: aŋutxuarutät.
Bunchberries (cf. Monkeyflower): cɪlqaqutät-al·ɪ·t.

Dandelion (cf. Cinque-foil): ciLqaqutaq.
Dodecatheon pauciflorum: cu·rɔruät.
Devil club: cukilanarpaq.

Eatable plants (diff. spp.): aʃarquit, qᴵʀqät, ulait.

Fireweed: qaŋa·naruät.
Flower (cf. Springbeauty): nan·aruaq.

Grass: qɪaq.

Hemlock: al·ciq.

Kamchatka lily: ʃupuxnät, la·q.
Kelp (different sp.): nuakataq, ɪ·tuq, ʃit·a·lät.

Lagoonberries: pujurʋnɪ·t.
Lagoonberries (yellow): aqagvɪt.
Ligusticum: taranɪ·ŋuasagät.
Lupine: aka·tarutät, aka·tät.

Menziesia ferruginea: əm·aruarutät.
Monkeyflower (cf. Bunchberries): ciLqaqutät-al·ɪ·t.
Moss berries: pak·ɪ·t, uʃkorʋ·tät.

Nettle: paumnät.

Plant, fern-like: tuqujuiliŋuq.
Polypody: plu·t.
"Pumpkin": kun·aq.

Rockweed (different sp.): nup·uaq, lɔrtuin·ät, ata·guit.
Root: ac·ia.*

Salmonberries: qiumalʌ·qutät, qiumala·t.
Salmonberries (yellow): qa·tɩgia·tʌrvät.
Sandwort: kəxtutrv·tät.
Sorrel: qun·ʌralɪq.
Springbeauty (cf. flower): nan·ʌruät.
Spruce: aŋq'nʌralɪq.
Strawberry: atsʌ·q, atsʌ·qutʌq.

Tree: nɩko·rʌqtɔq.

Violet (cf. flower): nanʌruät.

Willow: cvät.
Wood (material): kɩnɛrkʌq.

Yarrow: qani·tḳnät.
"Parship": ciŋkat.

Animals.

Bear, brown: laklʌq.
Bear, black: tan·ʌralɪq.
Beaver: ʃnɪq.
Blackfish (killerwhale?): ʌqluk.
Bull-head (diff. spp.): uli·xtʌq, ujaŋtʌq, kala·q.
Bumble bee: uqvtɩ·tuʌq.
Butterfly: caralnataq.

Caribou: rᵉn·arq.
Clam, butter: ʃalʌq.
Clam, geoduck: ʃala·tʌrpak.
Clam, horse: tuqa·tɪq.
Clam, razor: cɩŋta·tʌq.
Clam (small, sp.?): ʃit·a·lik.
Cockle: tauxtʌq.
Cod: amu·tʌq, naqinɩʌq (obsolete).
Cod, kelp: suluxpuʌq.
Cormorant: aga·juq.
Crane: juʌrɔrtulɪq.
Cuttlefish: amɩ·kuq.

Diver northern: tu·lɩk.
Dog: piuxta.
Duck, long-tailed: ʌraŋkiluk.
Duck (mallard): ʃɪqta·q.
Duck (teal): apa·rilɩŋuq.
Duck ("sprake"): tiŋ·iuq.

Eagle, baldheaded: qutʃkalʌq.
Eider: qaja·rɪq.
Eider (brown): qa·nɩlqa·tɪq.
Ermine: amɩ·tatvk.

Fly (small): an·ɩʌq.
Fly ("blue bottle"): anaulɪq.
Fox, red: uicu.

Goose (spec.?): tɩməŋiʌq.
Ground squirrel: kaŋa·nʌq.
Guillemot: cugʌq.
Gull (spec.?): nʌrua.

Halibut: ʃagɪq.
Herring: jikalvxpʌq.
Humming bird: məxtarpʌq.

Killerwhale (blackfish?): takxukuäk.
Kittiwake: ukigiʌq.

Land otter: kᵉp·arkʌq.
Louse: kiʃta, nərɩʃta.
Lynx: atərtulik.

Marmot: quɪr·ɪq.
Marten: kvxcicuaq.
Mink: ldquaq.
Moose: tɩxlɪq.
Mosquito: kᵉxturiʌq.
Mountain goat: ʃᵉp·a·q.
Mouse: kvpilɩŋaq.
Musk rat: ʌra·la·luk.
Mussel: am·iʌq.

Olachen (different sp.): kv·cat, tuka·tlit.
Owl: jʌrtu·lɪq.

Porcupine: qaŋa·tʌq.
Porpoise (different spec.): maŋʌq, cdpɪq.

Salmon, dog: aliŋartvlɪq.
Salmon, humpback: amartɔrpiʌq.
Salmon, king: ɪra·tluxpäk.
Salmon, pink: nikliq.
Salmon, silver: ca·juaq.
Seal, fur: a·tak.
Seal, ribbon (?): aliŋa·lik.
Seal, spotted: qäg·iʌq.
Sea lion: vɪ·na.
Sea otter: dkam·ʌq.
Sea slug: tardlaq.
Shark: caŋḳnulu·qɪq.
Snapper, red: uʃmaq.
Spider: atməlarijuaq.
Squirrel: ildkiaq.
Swan: uqverpaq.

Tail (of mammal): pamɩva.*
Tail (of bird): kɩŋv·me.*

Whale, white: anarqa·nʌq.
Whale (humpback?): qɪn·ɩŋ·ulik.
Whale (sperm?): kula·mak.
Wing: ʃʌqa.
Wolf: kigilu·nəq.
Wolverine: tɩgdliŋʌralɪq.

Man and the Human Body

Arm: talɪq.

Back: qudlɩk.
Beard: uŋ·e.
Blood: auk.
Bone: nanɪq.
Boy, halfgrown: tanɩvaŋuasʌq.
Boy, ab. 18–20: tanɩvʌq.
Brain: dquq.

Cheek: ulvʌq.
Child: ujukuiL·A·q.

Ear: cv·n.
Eye: ɩ·.
Eyebrows: qauglut.
Eyelashes: qamar·iät.
Excrement: anʌq.

Face: xɩ·nʌq.
Finger, fore: tik·qa.
Finger, little: ɛqilquqa.
Finger, middle: qukʌqlɛqa.
Finger, ring: tuŋilɪqa.
Finger, thumb: naŋinra.
Foot: ɩ·tʌq.

Girl, halfgrown: qanɩklaŋuasʌq.
Girl, ab. 18–20: qanɩklʌq.
Gum: əŋkiʌq.

Hair (sing.): nvʌq.
Hand: aigʌq.
Head: näʃquq.
Heart: napan.
Hip: makitra.*

Intestines: qidlue.*

Kidney: tarto.
Knee: cɩʃquq.

Leg: ɪruk.
Lip, upper: qʌqlva.*
Liver: tiŋuk.
Lung: kumaginaq.

Mamma: mʊk.
Man (human being): ʃuk.
Man (male): nʊpaʟkiaq.
Man, old: aŋun.
Man, very old: aŋu·kasaq.
Milk: muluk·uq.
Mouth: qanɪq.

Neck: juaquq.
Nose: q^{a}ŋaq.

Palate: qila·gua.
Rib: tʊlɪ·maq.

Shoulder: tʊ^{d}ja.*
Shoulder blade: a^{d}lɪaruaq.
Skin: amɪq.
Stomach: aqxaruq, aqʃe·.

Toe: naŋinra.*
Tongue: ulu.
Tooth: ku·n.

Urine bladder: paga·tɪq.

Virgin: kaŋɪrla·tak.
Voice: re·ne.

Woman: arənaq.
Woman, old: uci·ŋuq.
Woman, menstruating: arənaq arum·a^{d}la.

Dress.

Apron: juŋ·iaq.

Back scratcher: paumiʃun. paumʊt^{a}ŋka.
Belt: maɾi·utaq.
Boot: kamuk.

Cap: nacarpaq.
Coat, fur: kamlɪ·kaq.
Coat, gutskin: kanaxlʊk.
Comb: ilɪrtu·tat.

Eye shade: qɪk·ia.

Glove: aixaruät.

"Half jacket": akuilitaq.
Hat (basketry): ariugnaq.
Hat (wooden): ʃakoaq.
Head band (woman's): taukaruaq.

Labret: qatɛq.

Mitten: arɪ·tik.

Nosepin: kutuq.

Skin, hairy: aʟɪ·raq.
Skin, white: nɪŋurtaq.
Sleeve: alɪq.
Sole, boot: nataruaq.

Dwellings and Furniture.

Basket: qa·gɪq.
Basket, cooking: cɪrɪ·tikcäk.
Bath room: mare.
Blanket (sleeping): ʃaragwia.
Boards for spreading smoke: cukelrutät.
Bowl (for eating): cɪquq.
Bowl, wooden: qantarpaq.
Box, wooden: kaŋiartulik.

Cache: ɪ·ra.
Corner: kaŋɪrqʊlʊk.

Dipper, water: imɪ·n.
Door: ame·ŋa-anəm.
Drying rack for fish (over fire place): inɪ·tarät.

Fire place: ʁnɪ·ʟəq.

House, log: ^{e}na, n·a.
House, smoke (cf. bath room): mare.

Ladle: qaqʊ·taq.
Lamp: ku·maq.

Marrow extractor: ima·ruiʃu·n.

Pit (for burying fish to ferment): uqʃut.
Pot, chamber: etqu·q.
Pot, cooking: ku·pɪk.

Refuse heap: kuguʟ·ɪt.

Roof: cɪ.a·*

Sleeping room: ^{ə}nlaq.
Spoon: aloronan.
Storing place (on top of sleeping room): qulɛ·ruät.

Urine tub: ətqɪŋcaik.

Water pail, basketry: əm·u·n.
Water pail, wooden: em·u·ʟukuaq.
Window: ga·leq.

Communication.

Baidar (umiaq): akɪ·k.
Baidar, stem: cu·ŋa.*
Baidar, stern: aqua.*
Baidar, thwarts: iŋu·te.
Baidarka (kayak): qaja·ŋ·uaq (1 man), qajarpaq (2 men), paita·lɪk (3 men).
Baidarka, cross piece: aja·ge.
Baidarka, gunwale: apa·mak.
Baidarka, hand rest: aja·paqvik.
Baidarka, keelson: naŋun·a.
Baidarka, man-hole coaming: paiŋa.*
Baidarka, prow pieces: qalɪ·rqʊcik.
Baidarka, ribs: a^{d}liarät.
Baidarka, ridge pole: qulaq.
Baidarka, ridge pole prop: ilu·tutac·aq.
Baidarka, ring outside man-hole coaming: qaglaq.
Baidarka, side streaks: ʊnarät.
Baidarka, stem: nucugvia.*
Baidarka, stern: aqʊa.*
Baidarka siphon: qalun.
Boat hook: klu·gaq.

Dug-out: araqvik.

Snowshoe: taŋlʊ.
Skin boat, 2 masts: aŋiaq.

Hunting and Fishing.

Arrow: ruq.

Bag for spear heads: inartaq.
Blade (of harpoon and lance): ipugiaq.
Bow: ulimaruaq.

Club, sealing: axaun.

Decoy seal: nulʊ·run.
Dead fall: nanariaqpaq, cɪrkuaq (for land otter).
Deadfall, frame supporting roof of: pauk.
Deadfall, pole supporting roof of: tutʃta·.*

Rattle: kaʟakuagruät (pl.), kaʟa·kuaʀuaq.

Shaman: kaʟa·lik.
Skipping (after whale hunt): kapaŋara·xäk.
Slave: ajɪʀkaq.
Song: at·ʋ·n.
Song (derisive): ɪ·ruŋuaq.
Song (hunting): pisɔrʃun-at·u·n.
Soul: ʃʋgʋnraq.
Spirit: kaʟa·q, kaʟagaq.

Village: nunat.

Whale hunter: kula·maqxuʀta.
Whistle: qa^{d}lɪ·ruaq.

Pronouns.

All (of them): tamaʀ^{a}mäŋ.
All (of us): tamamta.
All (of you): tamaʀpɪci.

Both (of them): tamaʀ^{a}mäk.
Both (of us): tamamenuk.
Both (of you): tamaʀpɪtɪk.

He, she, it: äʟ·ɪ·n.

I: x^{w}i.
I alone: kɪ·ma.

We (dual.): xwaŋkunuk.
We (plur.): xwaŋkuta.

They (dual.): äʟɪxk·a.
They (plur.): äʟɪ·ta.

You (sing.): äʟpät.
You (dual.): äʟpitik.
You (plur.): äʟpici.

Numerals.

One: aʟ·ɪŋɔ·q, atʋ·ʃɪq.
One (of two): kɪ·kia, aipa.
Two: a^{d}läk, malʋk.
Three: piŋaun.
Four: ʃta·män.
Five: täʟɪ·män.
Six: aʀwɪulin.
Seven: maʟrʋ·ŋin.
Eight: ɪŋilulin.
Nine: qʋliŋuän.
Ten: qʋlin.
Eleven: qʋla-aʟ·ɪŋʋ·mik.
Twelve: qʋla-a^{d}lägɪnik.
Thirteen. qʋla-piŋaunik.
Fourteen: qʋla-ʃta·mänik.
Fifteen: qʋla-täʟɪ·manik.
Sixteen: qʋla-aʀwɪnlɪgɪnik.
Seventeen: qʋla-maʟrʋŋinik.
Eighteen: qʋla-ɪŋiluligɪnik.
Nineteen: qʋla-qʋliŋuanik.
Twenty: ʃʋinaq.
Twenty-one: ʃʋinaq-aʟ·ɪŋʋ·mik.
Thirty: ʃʋinaq-qʋlinik.
Forty: ʃʋinaq-a^{d}lik.
Fifty: ʃʋinaq-a^{d}lik-qʋlinik.
Sixty: ʃʋinaq-piŋaun.
Seventy: ʃʋinät-piŋaun-qʋlinik.
Eighty: ʃʋinät-ʃta·män.
Ninety: qaŋa·nak·äm-qʋp·e.
Hundred: qaŋa·nagaq.
Hundred and one: qaŋa·nagaq-aʟ·ɪŋʋ·mik.
Two hundred: a^{d}läk-qaŋa·nagaq.
Thousand: tɪ·ʃɪtʃaq (тысяча).

Particles etc.

Down (at sea): una·ne.
"Go ahead!": kita.
"Go on!": agʋa.
How: qaiʟʋn.
Inland: ilʋ·me.
Inside: qama·ne.
Long ago: qaŋɪn.
Never: a·^{t}ʟa.
No: aŋo.
Now: nut·an.
Other: aʟ·a.
Outside: qakmane.
Perhaps: xwaʟ·o.
Soon: cuka.
Thank you: quan·a.
"The same to you!" (after expression of thanks): quanɪ·tuq.
This: una.
That there: tauna.
Thing: cacaq.
End (of something): ɪrqua.*
Inside (of something): i^{d}lua.*
Middle (of something): qʋk·a.*
Opposite side (of something): ik·a·xun.
Outside (of something): ^{t}ʟa·te.
Thus: toak^{a}n.
Today: ər·^{a}naqpaq.
Tomorrow: un·uaro.
Tonight: unuxpaq.
What (interrog.): caca.
When (future): qaŋʋaq-ai.
When (past): qaŋʋaq.
Where (interrog.): nama.
Who (interrog.): kina.
Yes: a·.
Yesterday: unuk.
Yonder: ɪka·ne, aguane (farther away), jaqʀuane (far away).

Verbs and Adjectives.

Accompanies him: malixta·.
Afraid (is): alɪ·ŋuq.
Angry (is): ilʋ·tixkʋaʀtuq.
Answers him: kɪuga·.
Ashamed (is): qɪk·iuq.
Asks him: apqara·.
Astonished (is): tupäxtuq.
Awakens: ^{a}ʃaʀtuq.
Away (is): jakʃɪxtuq.

Bad (is): aʃɪ·tuq.
Bathes: maq·ɪuq.
Beats it: pɪqura·.
Beats it (with hand): pɪara·.
Bed, goes to: ɪnaʀtuq.
Bends it: p^{a}r^{a}ta·.
Bites: kixmaʀtuq.
Black: tan·arqaq.
Blows: aqlatuq.
Blue: cʋŋarqaq.
Boils: nər·ɪniaʀtuq, qaʟ·uq.
Boils it: qaläxkʋara·.
Brings it: taita.
Busy (is): agɪnaʀtuq.
Buys: uka·rtuq.

Capsizes: kitķŋuq.
Carries it: aŋarura.
Carries it (across chest): atmaga·.
Clean (is): ɪqɪ·tuq.
Cohabits (with spirit): kaʟa^{E}rkuq
Cold (it is): uʃuan·aʀtuq.
Comes: taj·uq.
Coughs: quɛʀtuq.
Cuts it: ʃiaxtura·.

Dances: agŋuaʀtuq.
Dark (is getting): tan·ariuq, unuxtuq.
Deep: ^{a}tɪguq.
Difficult: ajʋ·qənta.
Dirty: ɪqa·ga.
Dirty (is): ɪqouq.
Dives (bird): cɪktuq.
Dries it: kɪnɪrcɪra·.
Drifting (snow is): pɪqcɪrtuq.
Drills: ukɪrutqtuq.
Drinks (water): mərtuq.

Deadfall, roof of: cirqvaq.
Deadfall, stones on top of: nixte.*
Deadfall, trigger: kitiŋia.*

Fish hook, cod: kaluxtaq.
Fish hook, halibut: katnaxpaq.
Fish line: namɔr·iaq.

Gaff hook: kᵊluk.
Gorge: qatɔqmaq.

Harpoon, barbed: tuqʃiq.
Harpoon, salmon: kapurqaun.
Harpoon, sea otter: ərqarvn.
Harpoon, toggle: paiktuq, kᵊlv·gvaq.
Harpoon bladder: aqxaruq, maqartaq.
Harpoon foreshaft: atɹlikar·uaq.
Harpoon head (sea otter): agla·q.
Harpoon head, spur of: aqra.*
Harpoon line: tuqxɹ·k.

Lance: akliguaq.
Lance shaft: aja·run.
Leister (herring): kaki·vaq.

Net, bag: ra·kiq.
Net, bird: ulurʃik.

Quiver: qalu·jvŋiaq.

Salmon weir: ʃapu·tɹn.
Sling: aŋ·uaq.
Snare: niqaq.
Spear (cf. gaff hook): kᵊluk.

Throwing board: nuraq.
Throwing stick (for stones): ᵗluquq.
Trap, torsion: klipcaq.

Food.

Blubber: uruq.

Egg: pᵊkʃu·q.

Fat (goat): tvnuq.

Dried halibut put up in seal oil: ki·nu·malaʃagiq.
Dried humpback salmon put up in seal oil: amartɔq.
Dried silver salmon put up in seal oil: ca·juaq.

Fishroe: ᵗlv·gɹ·t.
Food: nᵊqa.

Marrow: ɹmarua.
Meat: kᵊmək.
Meat, dried: iniakunaq.
Meat, frozen: qumilaxkɹ-kᵊmäk.

Tools and Technique.

Adze, planing: cu·k.
Adze, splitting: cikLv·n.
Awl: ʃɹ·laq.

Bag, tool: ipigiarun.
Bag, sewing: kakigiguit.
Baleen: niqarkaq.

Digging stick: nuniɔrʃun.
Drill, hand: ukɹ·run.
Drill, bow: punvŋuaq, ukɹ·utaq.

Edge (e.g. of adze): xɹ·naq.

Fire drill (strap): amu·taq.

Graver: putʃu·tᵊŋka.

Knife, meat: nᵊru·ʃiq.
Knife, whittling: pujun.

Maul: nixta·ruʃun.

Needle (ordinary): mer·un.
Needle (for heavy skin): kapv·taq.
Needle case: mer·utu·tⁱka.

Paints (earth): padjaq, umxlik (black), oɹ·taq (dark), qat·aq (red).

Root lashing: qan·aq.

Sealskin (hairy): ale·raq.
Sealskin (white): niŋurtaq.
Sewing bag: kalauʃiq.
Sewing stand: kaʃiq.
Sinew thread (ordinary): jua·lɔq.
Sinew thread (whale): kulamim-jualua.
Snow shovel: sariutaq.
Stone saw: kuku·gnaŋuaq.
Stretching frame: nilăk.
Thimble: tikaq.
Thong: qəlo.
Tool (in general): putʃun.

Wedge: quqv·taq.
Wedge, bark stripping: kᵊlɹk. ki·utaq.
Whetstone: kaja·ruaq.
Whetting implement (beaver tooth): warcu·n.
Woman's knife: uluaq.

Sociology and Religion.

Amulet: ɹ·n·u.
Amulet (kind of): cikmiq.
Armour, rod: perimaŋuät.

Bladder feast: kaʃɹ·gvn, kaʃɪ·ru-lutiŋ.
Braining stone: aŋ·uaq.
Buzz: nucvxtaq.

Chief (first): tujuq.
Chief (second): saka·nʃɹk.
Claw trolls: kala·gät ʃtulɹ·t.
Club (war): aʃaun qirvaʃun.
Couple, married: kaʃutLikava.

Dagger: narv·caq, nᵊrucaq.
Dagger, stone: ca·xkuLɔq.
Drum: alɹ·iaq.
Drumhandle: tᵊgv·xvia.*
Drumstick: patxuta.*
Dwarf people: inuarul·u·t, inuarul·u·t-kiɹ·kɹt.

Flute: ʃukvmiaruaq.
Friend: kiuniruaq.

Games: (see text p. 103ff).
Giant people: ʃuxpaq (sing.).

Hand game: kupurät.

Juggling with stones: apv·ḳŋarlune.

Kinship: (see text p. 82).

Mask: qaqɹ·maq.
Medicine man: ilu·liɔrta.

Name: atiq.

"Owner": ʃva.*

Drips: kʊcɪrtuq.
Dry: kɪ'nʊ'muq.
Dull (is): ipxiatuq.

Enters (a house): itərtuq.
Even (is): tumkxtuq.
Expects it: uta'qaga'.

Falls: palukʃɪrtuq.
Fat (is): ururtuq.
Flees: arulartuq.
Finds it: na^{t}lka'.
Flies (bird): tɪŋurtuq.
Far away (is): jakʃixtuq.
Finds it: nalka'.
Finished (is): tarquq.
Fire, starts a: knɪrtuq.
Forgets it: agura'.

Glad (is): ip'ɪuq.
Goes out: an'uq.
Good (is): aʃɪrtuq.
Good, tastes: pɪturnɪrtuq.
Great: aŋ'uq.
Green: k^{ə}dlim-qaqa^{d}lerua.
Growls: uerlartuq.

Hears it: nɪ'ta'.
Helps him: ilɪ'lera'.
Hides it: ɪ'ra'.
High: qucɪrtuq.
Hovers: ɪqkɪduq.
Hummocky (is): tʊmlʊxtuq.
Hungry (is): kaixtuq.
Hunts (sea mammals): ajʊ'giuq.

Knows it: nalun'ta'.
Knows (it) not: na^{t}lʊa.

Laughs: ^{ə}ŋilartuq.
Licks it: alʊŋtura'.
Lies down: inariŋuq.
Lies (tells falsehood): iqluq.
Lifts it: kuiga'.

Many: amələrqait.
Meets him: paerta'.
Moistens it: micuŋ^{ə}t'a'.
Moonshine (it is): tanrɪlertʃtuq.

Near (is): qantuq.
New: nuta'q.
Noise, makes: məxluxtuq.

Old: qaŋɪrluɔq.

Paddles: pakiurtuq.
Pain (it gives): aŋq^{ə}tuq.
Paints: mɪŋu'giuq.

Rains (it): qɪtartuq.
Red: kauirqaq.
Remembers it: ən'aqa'maga'.
Returns: tajuq.
Rises: maktuq.
Round (it is): uixta'n^{ə}rtuq.
Rubs it (a skin): ulu'ga'. k^{ə}lɪ'qa'.
Rubs (noses): cɪŋa'ra'.

Says: nipuxtuq.
Scents (dog): pɪ^{t}lartuq.
Seizes it: taŋra'.
Sells: akɪ'cartuq.
Sews: mɪŋruq.
Sharp (is): ipəxtuq.
Sharpens it: ip^{ə}xcara'.
Shoots (arrow): pɪtixartuq.
Shouts: qajagʊrauq.
Sings: aturtuq.
Sinks: kit'uq.
Sits down: aqʊ'muq.
Sky (blue, clear): aguinruq.
Sleeps: ʃar'uq.
Sleepy: ʃara'niuq.
Small: miktuq.
Smells it: nara'.
Sneezes: ariʃkŋartuq.
Snows (it): qanirtuq.
Snow (it begins to): qan'ɪurta.
Sorry (is): cajartuq.
Sour (is): qʊ'nartuq.
Stabs it (with spear): kapo'qara'.
Starry sky (it is): micertuq.
Steals: tɪg^{ə}lirtuq.
Stinks: tipluxtuq.
Strong (is): tuknixtuq.
Subsides (wind): kajʊera.
Sunshine (it is): macartuq.
Swallows: ɪga.
Sweats: uruxtuq.
Sweet (is): naknirtuq.
Swims: kuimuq.

Thinks: umi'uarturtuq.
Thirsty (is): məqsurtuq.
Throws (harpoon): ɪxqarkŋuartuq.
Throws (stone): aglajʊ'ta'.
Tide (high): tatigmixtuq.
Tide (low): k^{ə}n'tuq.
Tired (is): marənɔrtuq.
Travels: ilruq, ajʊ'giuq.
Tries it: pitarqa'.

Unpalatable (is): piturʊnɪ'tuq.
Uses it: atu'ra.

Walks: ag'uq.
Wakes up (shaman, from trance): cum'ərtuq.
Warm (it is): marartuq.
Washes: ermixtuq.
Weeps: qɪ'juq.
Wet: məcʊ'ŋuq.
Wet (wood): məcʊluguq.
Whispers: agiumiruartuq.
White: qatarqaq.
Winter (it is): ukʃurtuq.
Wishes: umiuarturtuq.
Writes: jartuq.

Yawns: aitorauq.
Yellow: anarqa^{d}leruaq.

Modern Words[1].

Accordion: atʊ'vatstat.
Aeroplane: tɪŋu'la.
American: meikansaq (американец).
Apple: ia'palaqɪq (яблоко).
Ash tray: puju'valit.
Axe: tupu'luq (топорик).

Barrel: putʃkaq (бочка).
Bed: ŋ'əluq.
Blanket: ka'leq.
Bread: li'paq (хлеб).
Bullets: i'mat.

Calendar: casla't (cf. час).
Candle: ʃuitʃkaq (свеча, свечка).
Candy: kanvuitaq (конфетка).
Chair: aku'mluq.
Church: arajuiq.
Cigarette: puju'vaq.
Clock: casaq (часы).
Coal: mats'naq.
Coffee: ku'viaq (кофе).
Cooking pot: ku'piq.
Comb: il'ɪrtutat.
Corn: kuluviq (cf. колос).

[1] Most of the words were written down by Norman Reynolds, for which reason I dare not vouch for the correctness of the spelling in all cases. The amount of Russian loan words is considerable.

Cotton: lɪma·xaq.
Cow: kulu·aq (корова).
Cup: saskaq (чашка).

Diamond: taimanɪt.
Dresser: atku·təq.
Drum: palapa·naq (барабан).

File: pi·laq (пила).
Filipinos: filipi·nat.
Finger ring: ku·lun.
Flour: mokaq (мука).
Frenchmen: frensmanɪt.
Frying pan: sku·lutaq (сковорода).

Germans: tʃɐrɪmanɪt.
Glass: stik^{a}luq (стекло).
Gold: ʃɪpa·t.
Guitar: kita·laq (гитара).
Gun: nutʀu·tuq.

Hairbrush: prə·ʃɪt (brush).
Hammer: molu·tuq (молоток).
Handkerchief: pəlatu·guaq (платок).
Horse: ku·niuq (конек).

Leather: itɪʀqaq.
Lemon: kuɪʀsu·tɪvat.

Magazine: kali·kat.
Match: spi·tʃkaq (спичка).
Mattress: aʟɪ·akaq.
Mirror: tan·uɪotɪq.
Money: a·kit.
Motorboat: pulutəŋuasaq (cf. пароход).
Mouth organ: ʃuptaruat (cf. зубчатый).

Nail: qɔʀkaq.
Necktie: juaquaq.
Negroes: ala·pat (арап).
Newspaper: kaʃɪtaq (газета).
Norwegians: nɔrvitʃenɪt.

Oar: utuqɪaq.
Onion: lu·q (лук).
Orange: kavərka·uaq.

Paper: kali·kaq.
Pencil: iarotaq.
Pepper: pi·litsaq (перец).
Pig: ʃi·tinɪkaq.
Pillow: poluskaq (полушка).
Plate: ciquq.
Pocket watch: kalmanəqʃvn (карманный . . .).
Potato: kaltuvaq (картофель).
Priest: ka·saq (казак).

Rubber: alepapuq, alepapu·ruaq.
Russian: kasa·kaq (казак).

School: sku·luq (школа).
School teacher: sku·luʀta.
Scissors: no·ʒicuq (ножницы).
Silk: ʃu·quq (шелк).
Silver: silipɑli·naq (серебряник).
Spectacles: iŋuq.
Steamship: puluhu·taq (пароход).
Stove: kami·naq (камин).
Sugar: saxalaq (сахар).
Swedes: sui·dat.

Table: stu·luq (стол).
Table spoon: lu·ʃkaq (ложка).
Tea: ca·ut (чай).
Tea kettle: tʃainɪq (чайник).
Tea pot: tʃaini·kuaq.
Tea spoon: lu·ʃkaŋuasaq (cf. ложка).

Vase: staka·naq (стакан).
Vinegar: u·qɪusaq (уксус).
Violin: skli·pkaq (скрипка).

Wall (of house): ʃtɪnaq (стена).

Grammatical Notes.

The following grammatical notes are both imperfect and scattered, and I am even afraid that some of the forms may be incorrect. In consideration of the fact that the dialect of Prince William Sound has so far been entirely unknown I have nevertheless ventured to publish my observations in the hope that they may prove to be of some help for a more thorough investigation of the language in the future. The amalgamating and incorporating character of its structure and, in short, its close affinity to other Eskimo dialects as a whole are strikingly apparent.

The nouns have no genders but three numbers, singular, dual, and plural, and two ordinary cases, absolutive and relative. Thus:

	Sing.	Dual.	Plur.
Eye	ɪ·	ɪ·k	ɪ·t
Dog	piuxta	piuxtɪk	piuxtɪt
Gull	naɪua	naɪuäk	naɪuät
Spirit	kaʟagaq	kaʟagäk	kaʟagät
Baidarka	qajaq	qajäk	qajät
Spotted seal	qäg·iaq	qäg·iäk	qäg·iät
Brown bear	laklaq	lakläk	laklät
Edge	xɪ·naq	xɪ·nagɪk	xɪ·nät
Head	näʃquq	näʃquk	näʃqut
Bowl	cɪquq	cɪqvk	cɪqvt
Long-tailed duck	aʀaŋkiluk	aʀaŋkilu·k	aʀaŋkilut
Planing adze	cu·k	cu·guk	cu·gut
Boot	kamuk	kamguk	(kamgut)
Splitting adze	cɪklu·n	cɪklu·tɪk	cɪklu·tit
Water basket	əm·u·n	əm·u·tik	əm·u·tit

In the relative case the singular ending is -m, whereas in dual and plural the absolutive and relative are the same, for instance:

	Sing.	Dual.	Plur.
Dog	piuxtam	piuxtık	piuxtıt
Splitting adze	cıklu·tım	cıklu·tık	cıklu·tit
Brown bear	laklam	lakläk	laklät

The relative case is used as an expression of relation both between two nouns (*i. e.* as the genitive) and between a noun and a verb with an object. Thus: ʃu·m-ı·ŋa, the man's eye; ʃu·m-cu·gva, the man's adze; ʃu·m-cu·gve, the man's (several) adzes; piuxtık-näʃqukək, the (two) dogs' (two) heads; laklät-näʃqve, the bears' heads; ʃu·m taŋʀa· piuxta, the man sees the dog; ʃu·kək taŋʀa·k piuxta, the (two) men see the dog; ʃu·kət taŋʀä·t piuxta, the (several) men see the dog.

Beside the ordinary cases the nouns have certain local endings. Thus, the following forms may be derived from qajʌq, a baidarka:

	Sing.	Dual.	Plur.
Locative	qaja·me	qajagıne	qaja·ne
Allative	qaja·mvn	qajagınvn	qaja·nvn
Ablative	qaja·mık	qajagınık	qaja·nık
Vialis	qaja·gun	qajagıgun	qajätxun

The personal cases or possessive inflection of the nouns, which here seem also to be equivalent to the verb "have", will appear from the following examples:

Person		Sing.	Plur.
Sing.	1.	qajʌra	qajäŋka
	2.	qajän	qaja·tin
	3.	qaja·	qaje·
Dual	1.	qajʌrpäk	qajʌ·rpäk
	2.	qajʌrtik	qajʌ·rtik
	3.	qaja·k	qaja·kək
Plur.	1.	qajʌrpät	qajʌ·rpät
	2.	qajʌrci	qaja·ci
	3.	qaja·t	qajı·t
Sing.	1.	piuxtika	piuxtəŋka
	2.	piuxtin	piuxtətin
	3.	piuxta·	piuxte·
Dual	1.	piuxtixpäk	piuxtəpäk
	2.	piuxtik	(piuxtətik)
	3.	piuxtı·k	(piuxtəkək)
Plur.	1.	piuxtixpät	piuxtəpät
	2.	piuxci	piuxtıci
	3.	piuxtıt	piuxtı·t

The negative form is expressed by the suffix -tua, which is probably conjugated as a verb, as for instance: piuxtitua, I have no dog, qajı·tua, I have no baidarkas.

The relative cases of the nouns with possessive suffixes are the following:

		Sing.	Dual.
Sing.	1.	piuxtma	piuxtiŋma
	2.	piuxtixpät (?)	piuxtixpät
	3.	piuxtı·n	piuxtıxkän

		Sing.	Dual.
Dual	1.	piuxtimnuk	piuxtimnuk
	2.	piuxtixpitɪk[1]	piuxtipitɪk[1]
	3.	piuxtɪxka	piuxtɪxk·a
Plur.	1.	piuxtimta	piuxtimta
	2.	piuxtixpici	piuxtixpici
	3.	piuxtɪ·ta	piuxtɪxk·a

Unfortunately, the notes on the conjugation of the verbs are even more deficient; thus, the complete lack of information of interrogative and optative forms, etc., is a serious shortcoming. In the indicative we find the following forms of the intransitive verb pᵊxᵗʟa (-ʌq?), he walks:

		Affirmative	Negative
Sing.	1.	pᵊxᵗʟa·ŋa	pᵊxtɪnɪŋua
	2.	pᵊxᵗʟa·tən	pᵊxtɪnɪŋu·tin
	3.	pᵊxᵗʟa	pᵊxtinɪŋɔ·q
Dual	1.	pᵊxᵗʟa·kuk	pᵊxtinɪŋo·kuk
	2.	pᵊxᵗʟa·cik	pᵊxtinɪŋo·tik
	3.	pᵊxᵗʟɪ·k	pᵊxtinɪŋv·k
Plur.	1.	pᵊxᵗʟa·kut	pᵊxtinɪŋo·kut
	2.	pᵊxᵗʟa·ci	pᵊxtinɪŋo·tit
	3.	pᵊxᵗʟɪ·t	pᵊxtinɪŋv·t

The following forms may serve as examples of the conjugation of the transitive verb taŋʀa·, he sees him:

(Object 3. person singular: he sees him)

		Affirmative	Negative
Sing.	1.	taŋʀara	taŋɪn·tara
	2.	taŋʀan	taŋɪn·tan
	3.	taŋʀa·	taŋɪn·ta
Dual	1.	taŋʀarpäk	taŋɪn·tarpäk
	2.	taŋʀartik	taŋɪn·tartik
	3.	taŋʀa·k	taŋɪn·tak
Plur.	1.	taŋʀarpät	taŋɪn·tarpät
	2.	taŋʀarcɪ	taŋɪn·tarcɪ
	3.	taŋʀä·t	taŋɪn·tä·t

(Object 3. person dual: he sees them)

Sing.	1.	taŋʀäxka	taŋɪn·tänka
	2.	taŋʀäxkin	taŋɪn·tan
	3.	taŋräk	taŋɪn·täk
Dual	1.	taŋʀa·päk	taŋɪn·ta·päk
	2.	?	taŋɪn·tartik
	3.	taŋʀa·k	taŋɪn·täk
Plur.	1.	taŋʀa·pät	taŋɪn·ta·pät
	2.	?	taŋɪn·tarci
	3.	taŋʀä·t	taŋɪn·ta·t

[1] The singular and dual forms of 2. person dual are probably confused.

(Object 3. person plural: he sees them)	Affirmative	Negative
Sing. 1.	taŋʀänka	taŋin·tənka
Sing. 2.	taŋʀa·tən	taŋin·ta·tən
Sing. 3.	taŋʀe·	taŋin·te·
Dual 1.	taŋʀa·päk	taŋin·tapäk
Dual 2.	?	?
Dual 3.	taŋʀe·t (taŋʀe·k?)	taŋin·cɪ·t (taŋin·cɪ·k?)
Plur. 1.	taŋʀa·pät	taŋin·tapät
Plur. 2.	?	?
Plur. 3.	taŋʀe·t	taŋin·cɪ·t

(Object 1. person singular: he sees me)		
Sing. 2.	taŋʀarpɪŋa	taŋin·tarpɪŋa
Sing. 3.	raŋʀa·ŋa	taŋin·ta·ŋa
Dual 2.	taŋʀarpitiginiŋa	taŋin·tarpätɪgɪnɪŋa
Dual 3.	taŋʀaginiŋa	taŋin·tägɪnɪŋa
Plur. 2.	taŋʀarpica	taŋin·tarpäca
Plur. 3.	taŋʀätŋa	taŋin·tätkŋa

(Object 1. person dual: he sees us two)		
Sing. 2.	taŋʀarpikʊk	taŋin·tarpɪkʊk
Sing. 3.	taŋʀa·kʊk	taŋin·ta·kʊk
Dual 2.	taŋʀarpikʊk	taŋin·tarpɪkʊk
Dual 3.	taŋʀetikʊk	taŋin·ta·kʊk
Plur. 2.	taŋʀarpicɪ·kʊk	taŋin·tarpicikʊk
Plur. 3.	taŋʀetikʊk	taŋin·ta·kʊk

(Object 1. person plural: he sees us)		
Sing. 2.	taŋʀarpikʊt	taŋin·tarpikut
Sing. 3.	taŋʀa·kʊt	taŋin·ta·kʊt
Dual 2.	taŋʀarpikʊt	taŋin·tarpikʊt
Dual 3.	taŋʀetikʊt	taŋin·tetikʊt
Plur. 2.	taŋʀarpɪcɪkʊt	taŋin·tarpicikʊt
Plur. 3.	taŋʀetɪkʊt	taŋin·tetɪkʊt

(Object 2. person singular: he sees thee)[1]		
Sing. 1.	taŋʀakin	taŋin·takin
Sing. 3.	taŋʀan	taŋin·ta·tən
Dual 1.	taŋʀakin	taŋin·ta·kən
Dual 3.	taŋʀaxtin	taŋin·ta·tin
Plur. 1.	taŋʀamkɪn	taŋin·ta·kən
Plur. 3.	taŋra·tin	taŋin·ta·tin

(Object 2. person dual: he sees you two)		
Sing. 1.	taŋʀamkin	taŋin·tamtik
Sing. 3.	taŋʀa·tik	taŋin·ta·tik

[1] There seems to be a confusion of several forms of both object 2. person singular and 2. person dual.

		Affirmative	Negative
Dual	1.	taŋʀamkin	taŋin·tamtik
	3.	taŋʀamci	taŋin·ta·cɪ
Plur.	1.	taŋʀaxtin	taŋin·tamcɪ
	3.	taŋʀa·tin	taŋin·ta·ci

(Object 2. person plural: he sees you)

Sing.	1.	taŋʀamcɪ	taŋin·tamcɪ
	3.	taŋʀa·cɪ	taŋin·ta·cɪ
Dual	1.	taŋʀamtik	taŋin·tamcɪ
	3.	taŋʀa·cɪ	taŋin·ta·cɪ
Plur.	1.	taŋʀamcɪ	taŋin·tamcɪ
	3.	taŋʀa·cɪ	taŋin·ta·cɪ

Of the intrasitive verb pᵊxᵗʟa, he walks, and the transitive verb taŋʀa·, he sees him, the future tense or conditional proposition, corresponding to English "when" (future) and "if", is expressed as follows:

		Affirmative	Negative
Sing.	1.	pᵊkɪxkʊ·ma	pɪ·nɪʟkʊ·ma
	2.	pᵊkɪxkʊ·t	pɪ·nɪʟkʊ·t
	3.	pᵊkɪxkʊ·ne	pɪ·nɪʟkʊ·ne
Dual	1.	pᵊkɪxkʊ·mᵊnʊk	pɪ·nɪʟkʊ·mᵊnuk
	2.	pᵊkɪxkʊ·tik	pɪ·nɪʟkʊ·tik
	3.	pᵊkɪxkʊ·nik	pɪ·nɪʟkʊ·nik
Plur.	1.	pᵊkɪxkʊ·mᵊta	pɪ·nɪʟkʊ·mᵊta
	2.	pᵊkɪxkʊ·cɪ	pɪ·nɪʟkʊcɪ
	3.	pᵊkɪxkʊ·niŋ	pɪ·nɪʟkʊ·niŋ

(Object 3. person singular: if he sees him)

Sing.	1.	taŋʀkʊmko	taŋin·ɪʟkʊmko
	2.	taŋʀko	taŋin·ɪʟko
	3.	taŋʀkʊnio	taŋin·ɪʟkʊnio
Dual	1.	taŋʀkʊmiginɪko	taŋin·ɪʟkʊmkɪn
	2.	taŋʀkʊxtᵊgɪnɪgo	taŋin·ɪʟkʊmᵊgɪnɪgo
	3.	taŋʀkʊgɪnɪgo	taŋin·ɪʟkʊnɪgo
Plur.	1.	taŋʀkʊmtᵊxo	taŋin·ɪʟkʊmkɪn
	2.	taŋʀkʊnäxtɪgo	taŋin·ɪʟkʊtᵊgɪnigo
	3.	taŋʀkʊnixtigo	taŋin·ɪʟkʊnɪxtigo

The past tense or causal proposition, corresponding to English "when" (past) and "because", has the following forms of the two intransitive verbs pᵊxᵗʟa, he walks, and tajuq, he comes:

Sing.	1.	pᵊko·ma	taiŋama
	2.	pᵊko·t	taiŋʊ·t
	3.	pᵊkʊ·ne	taiŋane
Dual	1.	pᵊkʊmɪnʊk	taiŋamɪnʊk
	2.	pᵊkuʀtɪk	taiŋuxtɪk
	3.	pᵊkʊ·nɪk	taiŋamɪk

Plur.	1.	pᵊkʋmta	taiŋamta
	2.	pᵊkURCɪ	taiŋuxcɪ
	3.	pᵊkʋ·nɪn	taiŋamɪn

The imperative will appear from the following forms of pᵊxᵗLa, he walks, and ʃiaxtura·, he cuts it, *e. g.* a salmon:

	Sing.	Dual	Plur.
	pɪkʋ·t	pɪkURtɪk	pɪkURCɪ
Object sing.	ʃiaxo	ʃiaxtigɪnɪgo	ʃiaxco
Object dual	ʃigi·ge	ʃigi·tigɪnɪge	ʃigi·cɪge
Object plur.	ʃiARtURke	ʃiARtURtigɪnɪge	ʃiARtURCɪge

APPENDIX II

PLANTS COLLECTED IN PRINCE WILLIAM SOUND

Determined by

Johs. Gröntved, M. Sc. and *Eric Hultén*, Ph. D.

Polypodiaceae.

Cystopteris fragilis (L.) Bernh. — Hawkins Island, June 6.

Polypodium vulgare L. subsp. *occidentale* (Hook.) Hult. — Hawkins Island, May 25.

Juncaginaceae.

Triglochin maritimum L. — Hinchinbrook Island, June 12. Hawkins Island, June 18.

Cyperaceae.

Carex anthoxanthea Presl. — Chenega Island, July 27. and 31.

Carex Hindsii Clarke — Montague Island, July 24.

Carex Lyngbyei Hornem. subsp. *cryptocarpa* (A. C. Mey.) Hult. — Hinchinbrook Island, June 12. Hawkins Island, June 18.

Carex phyllomanica W. Boott — Chenega Island, July 27.

Carex pluriflora Hultén — Chenega Island, July 27.

Carex polygama Schkuhr (*C. Buxbaumii* Wg.) — Chenega Island, July 27.

Eriophorum polystachyum L. ssp. *scabriusculum* Hultén — Evans Island, July 24.

Scirpus caespitosus L. subsp. *austriaca* (Pallas) Aschers. & Graebner — Chenega, Island, July 27.

Gramineae.

Agrostis exarata Trin. — Hawkins Island, June 24. Montague Island, July 24.

Calamagrostis Langsdorffii Trin. — Chenega Island, June 26. Hawkins Island, July 16.

Elymus arenarius L. subsp. *mollis* (Trin.) Hult. — Hawkins Island, June 17.

Festuca rubra L. — Hawkins Island, June 24.

Hierochloë odorata (L.) Wahlenb. — Hawkins Island, June 22. and 30.

Hordeum brachyantherum Nevski — Montague Island, July 23. Chenega Island, July 26.

Poa eminens J. S. Presl. — Hawkins Island, July 2. Evans Island, July 24.

Poa pratensis L. forma. — Chenega Island, July 31.

Poa stenantha Trin. — Hawkins Island, June 30.

Poa cfr. *Williamsii* (Nash) Hult. — Hawkins Island, June 25.

Trisetum spicatum (L.) Richt. — Hinchinbrook Island, June 18. Montague Island, July 24.

Colchicaceae.

Tofieldia occidentalis S. Watson — Chenega Island, July 29.

Liliaceae.

Fritillaria camschatcensis (L.) Ker.-Gawl. — Hawkins Island, June 11.

Convallariaceae.

Majanthemum dilatatum (Howell) Nels. & Macbr. — Hawkins Islands, June 18. and 25.
Streptopus amplexifolius (L.) DC. — Hawkins Island July 2.

Iridaceae.

Iris setosa Pall. ex Link — Hawkins Island, June 24.

Orchidaceae.

Platanthera dilatata (Pursh) Lindl. ex Beck — Evans Island, July 24.
Spiranthes Romanzoffiana Cham. & Schlecht. — Chenega Island, July 29.

Urticaceae.

Urtica dioica L. — Hinchinbrook Island, June 18.

Polygonaceae.

Rumex (*occidentalis* Wats.) — Hinchinbrook Island, June 18.

Caryophyllaceae.

Honckenya peploides (L.) Ehrh. subsp. *major* (Hook.) Hult. — Hawkins Island, June 13. and 17.
Sagina intermedia Fenzl — Hawkins Island, July 9.
Stellaria humifusa Rottböll — Montague Island, July 28.

Chenopodiaceae.

Chenopodium sp. — Montague Island, July 28.

Portulacaceae.

Claytonia sibirica L. — Hinchinbrook Island, June 12. Hawkins Island, June 17.

Ranunculaceae.

Aconitum delphinifolium DC. — Jackpot Bay, July 27.
Actaea rubra (Ait.) Willd. subsp. *arguta* (Nutt.) Hult. — Hawkins Island, June 9.
Anemone narcissiflora L. — Hinchinbrook Island, May 23.
Anemone parviflora Michx. — Jackpot Bay, July 27.
Aquilegia formosa Fisch. — Hawkins Island, June 16.
Ranunculus septentrionalis Poir. — Hawkins Island, June 25.

Cruciferae.

Arabis hirsuta (L.) Scop. subsp. *Eschscholtziana* (Andr.) Hult. — Hawkins Island, May 25.
Arabis lyrata L. subsp. *camchatica* (Fisch.) Hult. — Hinchinbrook Island, June 12. Hawkins Island, June 22. and July 2.
Barbarea orthoceras Ledeb. — Jackpot Bay, July 27.
Cardamine umbellata Greene — Hawkins Island, June 9.
Cochlearia officinalis L. coll. — Montague Island, July 23.
Draba aurea Vahl — Hinchinbrook Island, June 6. Hawkins Island, June 11.
Rorippa (*palustris* (L.) Besser) — Hinchinbrook Island, June 18.

Violaceae.

Viola glabella Nutt. — Hawkins Island, May 25.

Geraniaceae.

Geranium erianthum DC. — Hawkins Island, June 16.

Saxifragaceae.

Saxifraga punctata L. ssp. *pacifica* Hultén — Hawkins Island, June 21.
Tellima grandiflora (Pursh) Douglas — Hinchinbrook Island, June 18. Hawkins Island, June 30.
Tiarella trifoliata L. — Hawkins Island, June 18. and 25.

Ribesiaceae.

Ribes Hudsonianum Richards. — Hawkins Island, May 31.
Ribes laxiflorum Pursh — Hinchinbrook Island, May 23.

Rosaceae.
Aruncus sylvester Kostel. — Hawkins Island, June 30.
Fragaria chiloënsis (L.) Duchesne — Hinchinbrook Island, June 12.
Geum calthifolium Menzies — Chenega Island, July 29. Hawkins Island, June 16.
Geum macrophyllum Willd. — Chenega Island, July 26.
Luetkea pectinata (Pursh) Kuntze — Jackpot Bay, July 27.
Potentilla pacifica Howell — Hawkins Island, June 16.
Potentilla villosa Pall. ex Pursh — Hawkins Island, June 3.
Rubus spectabilis Pursh — Hawkins Island, May 25.
Sanguisorba sitchensis C. A. Meyer — Chenega Island, July 29.

Pomaceae.
Malus fusca (Rafin.) Schneider — Hawkins Island, June 22.

Leguminosae.
Lathyrus maritimus (L.) Bigelow — Hawkins Island, June 7.
Lupinus nootkatensis Donn — Hinchinbrook Island, June 12.

Oenotheraceae.
Epilobium angustifolium L. — Hawkins Island, May 25. and July 16.
Epilobium glandulosum Lehm. — Montague Island, July 24.
Epilobium Hornemanni Rchb. — Chenega Island, July 26.
Epilobium latifolium L. — Montague Island, July 24.

Cornaceae.
Cornus canadensis L. — Hawkins Island, June 3.

Araliaceae.
Oplopanax horridus (Sm.) Miquel — Hawkins Island, July 8.

Umbelliferae.
Heracleum lanatum Michx. — Hinchinbrook Island, June 18.
Ligusticum Hultenii Fern. — Hinchinbrook Island, June 18. Hawkins Island, June 30.

Pyrolaceae.
Moneses uniflora (L.) A. Gray — Hawkins Island, July 2.

Rhodoraceae.
Ledum palustre L. subsp. *decumbens* (Ait.) Hult. — Hawkins Island, June 18.
Menziesia ferruginea Sm. — Hinchinbrook Island, June 18.

Ericaceae.
Cladothamnus pyrolaeflorus Bong. — Jackpot Bay, July 27.

Vacciniaceae.
Oxycoccus microcarpus Turcz. — Hawkins Island, June 18. Chenega Island, July 29.

Primulaceae.
Dodecatheon macrocarpum (Gray) Kunth — Hawkins Island, May 22. and June 8.
Glaux maritima L. — Montague Island, July 23.
Trientalis europaea L. — Hinchinbrook Island, June 12.

Hydrophyllaceae.
Romanzoffia sitchensis Bong. — Hawkins Island, May 25.

Boraginaceae.
Mertensia maritima (L.) S. F. Gray — Montague Island, July 23.

Scrophulariaceae.
Mimulus guttatus DC. — Hawkins Island, June 20.
Pedicularis parviflora Sm. — Chenega Island, July 29.
Veronica americana (Raf.) Schweinitz — Hawkins Island, July 2.

Lentibulariaceae.
Pinguicula vulgaris L. — Hawkins Island, June 18.

Plantaginaceae.
Plantago juncoides Lam. — Hawkins Island, June 30.

Gentianaceae.
Fauria Crista-galli (Menz.) Makino — Evans Island, July 24.
Gentiana platypetala Griseb. — Chenega Island, July 29.
Swertia perennis L. — Evans Island, July 24.

Rubiaceae.
Galium Aparine L. — Montague Island, July 23.

Caprifoliaceae.
Sambucus racemosa L. ssp. *pubens* (Michx.) Hult. — Hinchinbrook Island, June 12.
Viburnum edule (Michx.) Raf. — Hawkins Island, June 25.

Valerianaceae.
Valeriana sitchensis Bong. — Jackpot Bay, July 27.

Campanulaceae.
Campanula rotundifolia L. — Hawkins Island, June 1.

Compositae.
Achillea borealis Bong. — Hawkins Island, May 25. and June 30.
Apargidium boreale (Bong.) Torr. & Gray — Evans Island, July 24.
Arnica amplexicaulis Nutt. subsp. *prima* Maguire — Chenega Island, July 27.
Chrysanthemum arcticum L. — Evans Island, July 24.
Erigeron peregrinus (Pursh.) Greene — Hawkins Island, June 18. Evans Island, July 24.
Prenanthes alata (Hooker) D. Dietrich — Chenega Island, July 26.
Taraxacum cfr. *hyperboreum* Dahlst. — Hinchinbrook Island, May 25.

BIBLIOGRAPHY

Abbreviations.

A: Anthropos. Mödling b/ Wien.

AA: The American Anthropologist. Washington. Lancaster. Menasha.

AAA-M: American Anthropological Association, Memoirs. Lancaster.

AAntiq.: American Antiquity. Menasha.

AArch.: Acta Archæologica. København.

AArct.: Acta Arctica. København.

AES-M: American Ethnological Society. Monographs. New York.

AMNH-: American Museum of Natural History. New York.
- -AP: Anthropological Papers.
- -B: Bulletins.
- -HS: Handbook Series.
- -M: Memoirs.
- -MJ: Memoirs, Jesup North Pacific Expedition.

Antiq.: Antiquity. Gloucester.

APhS-: American Philosophical Society. Philadelphia.
- -M: Memoirs.
- -P: Proceedings.
- -T: Transactions.

AwKR: Archiv für wissenschaftliche Kunde von Russland. Berlin.

BA: Baessler-Archiv. Berlin.

BAASc: British Association for the Advancement of Science. London.

BAE-: Bureau of American Ethnology. Washington.
- -B: Bulletins.
- -R: (Annual) Reports.

BKRR: Beiträge zur Kenntniss des Russischen Reiches. St. Petersburg.

CGS-MAS: Canada. Geological Survey. Memoirs, Anthropological Series. Ottawa.

CI-: Canadian Institute. Toronto.
- -P: Proceedings.
- -T: Transactions.

CNAE: Contributions to North American Ethnology. Washington.

CUA-AS: Catholic University of America. Anthropological Series. Washington.

FA: Fieldiana. Anthropology. Chicago.

FMNH-AS: Field Museum of Natural History. Anthropological Series. Chicago.

FUF: Finnisch-Ugrische Forschungen. Helsingfors.

GR: Geographical Review. New York.

GSS: Det grønlandske Selskabs Skrifter. København.

GT: Geografisk Tidsskrift. København.

IAE: Internationales Archiv für Ethnographie. Leiden.

IE-TM: Institut d'Ethnologie. Travaux et Mémoires. Paris.

JAFL: Journal of American Folk-Lore. Boston & New York.

MFEA-B: Museum of Far Eastern Antiquities. Bulletins. Stockholm.

MG: Meddelelser om Grønland. København.

NMArb: Fra Nationalmuseets Arbejdsmark. København.

NMC-: National Museum of Canada. Ottawa.
- -AR: Annual Reports.
- -BAS: Bulletins, Anthropological Series.

NNB: Neue Nordische Beyträge. St. Petersburg & Leipzig.

NS-ER: Nationalmuseets Skrifter. Etnografisk Række. København.

NWU-SSSc: Northwestern University. Studies in the Social Sciences. Evanston & Chicago.

NYASc-A: New York Academy of Sciences. Annals. New York.

PFA-P: Robert S. Peabody Foundation for Archaeology. Papers. Andover, Mass.

PM-PAAE: Peabody Museum of American Archaeology and Ethnology. Papers. Cambridge, Mass.

PPS: Proceedings of the Prehistoric Society. Cambridge.

RAI-J: Royal Anthropological Institute. Journal. London.

RCAE: Report of the Canadian Arctic Expedition 1913–18. Ottawa.

RFThE: Report of the Fifth Thule Expedition 1921–24. Copenhagen.

RM-M: Rochester Museum. Memoirs. Rochester.
RSC-PT: Royal Society of Canada. Proceedings and Transactions. Montreal.
SAA-M: Society for American Archaeology. Memoirs. Menasha.
SFOu-TE: Société Finno-Ougrienne. Travaux Ethnographiques. Helsingfors.
SI-: Smithsonian Institution. Washington.
-AR: Annual Reports.
-CKn: Contributions to Knowledge.
-MC: Miscellaneous Collections.
SWM-P: Southwest Museum. Papers. Los Angeles.
UA-MP: University of Alaska. Miscellaneous Publications. Washington.
UC-: University of California. Berkeley.
-AR: Anthropological Records.
-PAAE: Publications in American Archaeology and Ethnology.
UK-RAA: University of Kentucky. Reports in Anthropology and Archaeology. Lexington.
UP-AP: University of Pennsylvania. Anthropological Publications. Philadelphia.
USNM-R: United States National Museum. Reports. Washington.
UW-: University of Washington. Seattle.
-PA: Publications in Anthropology.
-PPSSc: Publications in Political and Social Sciences.
WASc-J: Washington Academy of Sciences. Journal. Washington.
YU-PA: Yale University. Publications in Anthropology. New Haven.
ZE: Zeitschrift für Ethnologie. Berlin.

List of Works.

ALLEN, H. T.: Atnatanas; natives of Copper River, Alaska. SI-AR 1886, 1. 1889.

AMUNDSEN, R.: Nordvestpassagen. Kristiania 1907.

BACQUEVILLE DE LA POTHERIE: Histoire de l'Amérique septentrionale. I–IV. Paris 1722.

BALOGH VON BARÁTOS, B.: Die Ajnu. Anzeiger der Ethnographischen Abteilung des ungarischen National-Museums. VI. Budapest 1914.

BANCROFT, H. H.: History of Alaska. San Francisco 1890.

BANDI, H.-G.: Die Frage eines Zusammenhanges zwischen dem Magdalénien und der Eskimokultur. Jahrbuch der Schweizerischen Gesellschaft für Urgeschichte. XL. Frauenfels 1949–50.

BARNETT, H. G.: Culture element distributions: VII. Oregon coast. UP-AR, I, 3. 1937.

— Culture element distributions: IX. Gulf of Georgia Salish. UP-AR, I, 5. 1939.

BARRETT, S. A.: The material culture of the Klamath Lake and Modoc Indians of northwestern California and southern Oregon. UC-PAAE, V. 1910.

BATCHELOR, J.: The Ainu and their folk-lore. London 1901.

BECKER, C. J.: En 8000-aarig Stenalderboplads i Holmegaards Mose. NMArb. 1945.

BEECHEY, F. W.: Narrative of a voyage to the Pacific and Bering's Strait ... 1825–28. New ed. I–II. London 1831.

BELCHER, E.: Narrative of a voyage round the world. I. London 1843.

BEYER, H. O.: Philippine and East Asian archaeology, and its relation to the origin of the Pacific Islands population. National Research Council of the Philippines. Bull. 29. Quezon City 1948.

BILBY, J. W.: Among unknown Eskimo. London 1923.

BIRKET-SMITH, KAJ: A geographic study of the early history of the Algonquian Indians. IAE, XXIV. 1918.

— Ethnography of the Egedesminde district. MG, LXVI. 1924.

— Det eskimoiske slægtskabssystem. GT, XXX. 1927.

— Five hundred Eskimo words. RFThE, III, 3. 1928.

— The Caribou Eskimos. I–II. RFThE, V. 1929.

— Drinking tube and tobacco pipe in North America. Ethnologische Studien, I. Leipzig 1929a.

— Contributions to Chipewyan ethnology. RFThE, VI, 3. 1930.

— Foreløbig beretning om den dansk-amerikanske ekspedition til Alaska 1935. GT, XXXV. 1934.

— Early collections from the Pacific Eskimo. NS-ER, I. 1941.

— Ethnographical collections from the Northwest Passage. RFThE, VI, 2. 1945.

— Recent achievements in Eskimo research. RAI-J, LXXVII. 1951.

— & DE LAGUNA, F.: The Eyak Indians of the Copper River delta, Alaska. København 1938.

BOAS, F.: The Central Eskimo. BAE-R, VI. 1888.

— Second general report on the Indians of British Columbia. BAASc-R, 60. 1891.

Boas, F.: Fifth report on the Indians of British Columbia. BAASc-R, 65. 1895.
— The social organization and secret societies of the Kwakiutl Indians. USNM-R 1895. 1897.
— Property marks of Alaskan Eskimo. AA, n. s. I. 1899.
— The Eskimo of Baffin Land and Hudson Bay. AMNH-B, XV. 1907.
— The Kwakiutl of Vancouver Island. AMNH-MJ, V, 2. 1909.
— Ethnology of the Kwakiutl. BAE-R, XXXV. 1921.
— Notes on the Tillamook. UC-PAAE, XX. 1923.
Bogoras, W.: The Chukchee. AMNH-MJ. VII, 1904–09.
British Museum. Handbook to the ethnographical collections. 2. ed. Lond. 1925.
Brooks, A. H.: The geography and geology of Alaska. U. S. Geological Survey. Professional Papers, 54. Washington 1906.

Caamaño, J.: Expedición de la corbeta Aránzazu al mando de teniente de navío D . . . (1792). Colección de documentos inéditos para la historia de España. XV. Madrid 1849.
Chamberlain, A. F.: Report on the Kootenay Indians of southern British Columbia. BAASc-R, 62. 1893.
Chamisso, A. von: Reise um die Welt mit der Romanzoffischen Entdeckungs-Expedition 1815–18. A. v. Chamisso's Werke. 2. Aufl. I. Leipzig 1842.
Charlevoix, de: Histoire et description générale de la Nouvelle France. I. Paris 1744.
Claflin, W. H.: The Stalling's Island mound, Columbia county, Georgia. PM-PAAE, XIV, 1. 1931.
Clark, J. G. D.: Seal-hunting in the stone age of north-western Europe. PPS, n. s. XII. 1946.
— Whales as an economic factor in prehistoric Europe. Antiq., XXI. 1947.
Clarke, see Lewis.
Clements, F. E.: Primitive concepts of disease. UC-PAAE, XXXII, 2. 1932.
Collier, D., Hudson, A. E., & Ford, A.: Archaeology of the Upper Columbia region. UW-PA, IX, 1. 1942.
— see Martin, P. S.
Collins, H. B.: Archeology of St. Lawrence Island, Alaska. SI-MC, 96, 1. 1937.
— Outline of Eskimo prehistory. SI-MC, 100. 1940.
Cook, J., & King, J.: A voyage to the Pacific Ocean . . . in the years 1776–80. 2. ed. I–III. London 1785.
Cooper, J. M.: Snares, deadfalls, and other traps of the northern Algonquians and northern Athapaskans. CUA-AS, V. 1938.
— The culture of the northeastern Indian hunters: A reconstructive interpretation. PFA-P, III. 1946.
Coxe, W.: Account of the Russian discoveries between Asia and America. 3. ed. London 1787.
Cranz, D.: Historie von Grönland. I-III. 2. Aufl. Barby & Leipzig 1770.
Culin, S.: Games of the North American Indians. BAE-R, XXIV. 1907.
Czaplicka, M. A.: Aboriginal Siberia. Oxford 1914.

Dall, W. H.: Alaska and its resources. London 1870.
— Tribes of the extreme Northwest. CNAE, I. 1877.
— On the remains of later prehistoric man obtained from caves in the Catherine Archipelago, Alaska Territory, and especially from the caves of the Aleutian Islands. SI-CKn, 318. 1878.
— On masks, labrets, and certain aboriginal customs. BAE-R, III. 1884.
Davidson, D. S.: Snowshoes. APhS-M, VI. 1937.
Dawson, G. M.: Notes on the Shuswap people of British Columbia. RSC-PT, IX. 1892.
— Notes and observations on the Kwakiool people of the northern part of Vancouver Island and adjacent coasts. RSC-PT, V. 1888.
Dawydow, (G. I.): Reise der russisch-kaiserlichen Flott-Officiere Chwostow und Dawydow von St. Petersburg durch Sibirien und Amerika . . . 1801–04. Berlin 1816.
De Jarneth, D. L., see Webb, W. S.
Dixon, G.: A voyage round the world. London 1789.
Dixon, R. B.: Contacts with America across the southern Pacific. The American Aborigines, ed. D. Jenness. Toronto 1933.
Donner, K.: Quelques traineaux primitifs. FUF. 1919.
(Drage:) An account of a voyage for the discovery of a North-West Passage . . . by the Clerk of the California. I–II. London 1748–49.
Driver, H. E.: Wappo ethnography. UC-PAAE, XXXVI, 3. 1936.
— Culture element distributions: X. Northwest California. UP-AR, I, 6. 1939.

DRUCKER, PH.: The Tolowa and their Southwest Oregon kin. UC-PAAE, XXXVI, 4. 1937.
— Contributions to Alsea ethnography. UC-PAAE, XXXV, 7. 1939.
— Archeological survey of the northern Northwest Coast. BAE-B, 133. 1943.
— Culture element distributions: XXVI. Northwest Coast. UC-AR, IX, 3. 1950.
— The northern and central Nootkan tribes. BAE-B, 144. 1951.
DUCHAUSSOIS, R. P.: Aux glaces polaires. Indiens et esquimaux. Paris 1922.

EBERHARD, W.: Eine neue Arbeitshypothese über den Aufbau der frühchinesischen Kulturen. Tagungsberichte der Gesellschaft für Völkerkunde, II. Leipzig 1936.
— Lokalkulturen im alten China, I. Die Lokalkulturen des Nordens und Westens. T'oung Pao, XXXVII, Suppl. Leiden 1942.
EELLS, M.: The Twana Indians of the Skokomish reservation in Washington Territory. U. S. Geological and Geographical Survey of the Territories. Bulletin III. Washington 1877.
— The Twana, Chemakum, and Klallam Indians, of Washington Territory. SI-AR, 1887, 1. 1889.
EGEDE, HANS: Det gamle Grønlands nye Perlustration eller Naturel-Historie. Kiøbenhavn 1741.
EGEDE, PAUL: Efterretninger om Grønland, uddragne af en Journal 1721–88. Kiøbenhavn s. a. (1788).
ELLIOTT, H. W.: An arctic province. London 1886.
ELLIS, H.: Reise nach Hudsons Meerbusen . . . 1746–47. Goettingen 1750.
ELLIS, W.: An authentic narrative of a voyage performed by Captain Cook and Captain Clerke . . . 1776–80. I–II. London 1782.
EMMONS, G. T.: The basketry of the Tlingit. AMNH-M, III, 2. 1903.
— The Tahltan Indians. UP-AP, IV. 1911.
ERMAN, A.: Ethnographische Wahrnehmungen und Erfahrungen an den Küsten des Berings-Meeres. ZE, II–III. 1870–71.

FARRAND, L.: The Chilcotin. BAASc-R, 68. 1899.
— Notes on the Alsea Indians of Oregon. AA, n. s. III. 1901.
FIELD, W. O.: The glaciers of the northern part of Prince William Sound, Alaska. GR, XXII. 1932.
FLEURIEU, C. P. CLARET: Voyage autour du monde. . . . 1790–92, par Étienne Marchand. I–V. Paris, an vi–vii.
FORD, A., see COLLIER, D.
FRACHTENBERG, L. J.: The ceremonial societies of the Quinault Indians. AA, n. s. XXIII. 1920.
FRANCHÈRE, G.: Narrative of a voyage to the northwest coast of America. Early Western Travels, ed. R. G. Thwaites. Cleveland 1904.
FRANKLIN, J.: Narrative of a second expedition to the shores of the Polar Sea . . . 1825–27. London 1828.
FRIEDERICI, G.: Skalpieren und ähnliche Kriegsgebräuche in Amerika. Braunschweig 1906.
— Das Tränengruss der Indianer. Globus LXXXIX. Braunschweig 1906a.

GABUS, J.: Préparation des peaux chez les Esquimaux "Caribous". A, XXXV–XXXVI. 1942.
GAHS, A.: Kopf-, Schädel- und Langknochenopfer bei den Rentiervölkern. Festschrift P. W. Schmidt. Mödling b/ Wien 1928.
— Kult lunariziranoga praoca kod istočnih paleosibiraca. Godišnjaka Sveučilišta 1924/25–1928/29. Zagreb 1929.
GEIST, O. W., & RAINEY, F. G.: Archaeological excavations at Kukulik, St. Lawrence Island, Alaska. UA-MP, II. 1936.
GENEST, O.: Kapitän Jacobsen's Reisen im Lande der Golden. Globus. LII. Braunschweig 1887.
GIBBS, G.: Notes on the Tinneh or Chepewyan Indians of British and Russian America. SI-AR 1867. 1872.
— Tribes of western Washington and northwestern Oregon. CNAE, I. 1877.
GIDDINGS, J. L.: Dated Eskimo ruins of an inland zone. AAntiq., X. 1944.
— Early man on the Bering Sea coast. NYASc-A, 1950.
— The Denbigh flint complex. AAntiq., XVI. 1951.
GJESSING, G.: Circumpolar stone age. AArct., II. 1944.
— Norges steinalder. Oslo 1945.
— Some problems in northeastern archaeology. AAntiq., XIII. 1948.
(GLAHN, H. C.:) Anmærkninger over de tre første Bøger af Hr. David Crantzes Historie om Grønland. Kiøbenhavn 1771.
— Missionær i Grønland . . . .'s Dagbøger 1763–64, 1766–67 og 1767–68. Ed. H. Ostermann. GSS, IV. 1921.

GODDARD, P. E.: The Beaver Indians. AMNH-AP, X, 4. 1916.
— Indians of the Northwest Coast. AMNH-HS, 10. 1924.
GOLDER, F. A.: Tales from Kodiak Island. JAFL, XVI. 1903.
— Aleutian stories. JAFL, XVIII. 1905.
— The songs and stories of the Aleuts, with translations from Veniaminov. JAFL, XX. 1907.
— Eskimo and Aleut tales from Alaska. JAFL, XXII. 1909.
— (ed.) Bering's voyage. I–II. American Geographical Society, Research Series, 1–2. New York 1922–25.
GOLOWIN, P. N.: Ueber die russischen Colonien an der Nordwestküste von Amerika. AwKR, XXII. 1863.
GRAAH, W. A.: Undersøgelses-Reise til Østkysten af Grønland 1828–31. Kiøbenhavn 1832.
GRANT, U. S. & HIGGINS, D. F.: Reconnaissance of the geology and mineral resources of Prince William Sound, Alaska. U. S. Geological Survey. Bull. 443. Washington 1910.
— — Coastal glaciers of Prince William Sound and Kenai Peninsula, Alaska. U. S. Geological Survey. Bull. 526. Washington 1913.
GRINNELL, J.: Birds of the 1908 Alexander Alaska expedition. University of California. Publications in Zoology, V, 12. Berkeley 1910.
GUDGER, E. W.: Wooden hooks for catching sharks and *Ruvettus* in the South Seas. AMNH-AP, XXVIII, 3. 1927.
GUERNSEY, S. J., & KIDDER, A. V.: Basket Maker caves of northeastern Arizona. PM-PAAE. VIII, 2. 1921.
— see Kidder, A. V.
GUNTHER, E.: Klallam ethnography. UP-PA. I, 5. 1927.
— see Haeberlin, H.

HAAG, W. G., see Webb, W. S.
HAEBERLIN, H., & GUNTHER, E.: The Indians of Puget Sound. UW-PA. IV, 1. 1930.
HALLOWELL, A. I.: Bear ceremonialism in the northern hemisphere. AA, n. s. XXVIII. 1926.
Handbook of the American Indians north of Mexico. Ed. F. W. Hodge. I–II. BAE-B, 30. 1910.
HARDISTY, W. L.: The Loucheux Indians. SI-AR 1867. 1872.
HARRINGTON, M. R.: Gypsum Cave, Nevada. SWM-P, VIII. 1933.
HATT, G.: Arktiske Skinddragter i Eurasien og Amerika. København 1914.
— Moccasins and their relation to arctic footwear. AAA-M, III. 1916.
— Kyst- og Indlandskultur i det arktiske. GT, XXIII. 1916a.
— Notes on reindeer nomadism. AAA-M. VI, 1919.
— Asiatic influences in American folklore. Kgl. Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser. XXXI, 6. København 1949.
HAWKES, E. W.: The Labrador Eskimo. CGS-MAS, 14. 1916.
HEARNE, S.: A journey from Prince of Wales's Fort to the Northern Ocean. London 1795.
HEIZER, R. F.: Aconite poison whaling in Asia and America. BAE-B, 133. 1943.
— Pottery from the southern Eskimo region. APhS-P, 93. 1948.
HELLER, E.: Mammals of the 1908 Alexander Alaska expedition. University of California Publications in Zoology. V, 11. Berkeley 1910.
HENRY, A., see New Light, etc.
HIBBEN, F. C.: Evidence of early man in Alaska. AAntiq. VIII. 1942–43.
HIGGINS, D. F., see Grant, U. S.
HILL-TOUT, C.: Notes on the Sk·qō´mic of British Columbia. BAASc-R, 70. 1900.
— Ethnological report on the Stsēĕlis and Sk·aūlits tribes. RAI-J, XXXIV. 1904.
— Report on the ethnology of the south-eastern tribes of Vancouver Island, British Columbia. RAI-J, XXXVII. 1907.
— Report on the ethnology of the Okanák·ēn of British Columbia. RAI-J, XLI. 1911.
HIMMELHEBER, H.: Eskimokünstler. Stuttgart 1938.
HITCHCOCK, R.: The Ainos of Yezo, Japan. USNM-R, 1890. 1891.
HOLM, G.: Ethnological sketch of the Angmagsalik Eskimo. MG, XXXIX. 1914.
HOLMBERG, H. J.: Ethnographische Skizzen über die Völker des russischen Amerika. Acta Societatis Scientiarum Fennicæ. IV. Helsingfors 1856.
HOLTVED, E.: Archaeological investigations in the Thule district. I–II. MG, 141. 1944.
HONIGMANN, J. J.: Ethnography and acculturation of the Fort Nelson Slave. YU-PU, 33. 1946.
HOOPER, W. H.: Ten months among the tents of the Tuski. London 1853.
HOUGH, W.: Primitive American armor. USNM-R, 1893. 1895.

HRDLIČKA, A.: Anthropological survey in Alaska. BAE-R, XLVI. 1930.
— The anthropology of Kodiak Island. Philadelphia 1944.
— The Aleutian and Commander Islands and their inhabitants. Philadelphia 1945.
HUDSON, A. E., see Collier, D.
HUMBOLDT, A. VON: Essai politique sur le royaume de la Nouvelle Espagne. II. Paris 1811.

INGSTAD, H.: Pelsjegerliv blandt Nord-Kanadas indianere. Oslo 1931.

JACOBSEN, see Genest, O., and Woldt, A.
JAMES, E. O.: Cremation and the preservation of the dead in North America. AA, n. s. XXX. 1928.
JENKS, A. E.: The problem of the culture from the Arvilla gravel pit. AA, n. s. XXXIV. 1932.
JENNESS, D.: The life of the Copper Eskimo. RCAE. XII. Ottawa 1923.
— Eskimo string figures. RCAE. XIII. 1924.
— A new Eskimo culture in Hudson Bay. GR. XV. 1925.
— Comparative vocabulary of the western Eskimo dialects. RCAE. XV. 1928.
— The Indians of Canada. CNM-BAS. 65. 1932.
— The problem of the Eskimo. The American Aborigines, ed. D. Jenness. Toronto 1933.
— The Sekani Indians of British Columbia. CNM-BAS. 84. 1937.
— The Indian background of Canadian history. NMC-BAS, 65. 1937a.
— Prehistoric culture waves from Asia to America. WASc-J. XXX. 1940.
— Material culture of the Copper Eskimo. RCAE. XVI. 1946.
JEWITT, J.: The adventures of . . . Ed. R. Brown. London 1896.
JOCHELSON, W.: The Koryak. AMNH-MJ. VI. 1905–08.
— Archaeological investigations in the Aleutian Islands. Carnegie Institution. Publ. 367. Washington 1925.
— The Yukaghir and the Yukaghirized Tungus. AMNH-MJ. IX. 1926.
— Archaeological investigations in Kamchatka. Carnegie Institution. Publ. 388. Washington 1928.
— History, ethnology, and anthropology of the Aleut. Carnegie Institution. Publ. 432. Washington 1933.
JOHNSON, F. (ed.): Radiocarbon dating. AArch. XVII. 1951.
JONES, S.: The Kutchin tribes. SI-AR 1867. 1872.

KÄMPFER, E.: Geschichte und Beschreibung von Japan. I. Lemgo 1777.
KANE, P.: En Kunstners Vandringer blandt Indianerne i Nordamerika. Kjøbenhavn 1863.
KENNAN, G.: Tent life in Siberia. New ed. London 1871.
KIDDER, A. V., & GUERNSEY, S. J.: Archeological explorations in northeastern Arizona. BAE-B 65. 1919.
— see Guernsey, S. J.
KING, A. R.: Cattle Point, a stratified site in the southern Northwest Coast region. SAA-M 7. 1950.
KING, J., see Cook, J.
KITTLITZ, F. H. VON: Denkwürdigkeiten einer Reise nach dem russischen Amerika. I–II. Gotha 1858.
KNUTH, E.: An outline of the archaeology of Peary Land. Arctic, V. Ottawa 1952.
KOPPERS, W.: Die Frage des Mutterrechts und des Totemismus im alten China. A. XXV. 1930.
KOTZEBUE, O. VON: Entdeckungs-Reise in die Süd-See und nach der Berings-Strasse. I. Weimar 1821.
— Reise um die Welt in den Jahren 1823–26. II. Weimar & St. Petersburg 1830.
KRACHENINNIKOW: Histoire et description du Kamchatka. I–II. Amsterdam 1770.
KRAUSE, A.: Die Tlinkit-Indianer. Jena 1885.
KRAUSE, F.: Die Kultur der kalifornischen Indianer. Schriften des Instituts für Völkerkunde. I. Leipzig 1921.
KRICKEBERG, W.: Einige Neuerwerbungen der nordamerikanischen Sammlung des Königl. Museums für Völkerkunde. ZE XLVI. 1914.
KRIEGER, H. W.: Archeology of Central Alaska. In: Hrdlička 1930.
KROEBER, A. L.: Arrow release distributions. UC-PAAE XXIII. 1927.
KUMLIEN, L.: Contributions to the natural history of arctic America. USNM-B XV. 1879.

LAGUNA, F. DE: The archaeology of Cook Inlet, Alaska. Philadelphia 1934.
— Eskimo lamps and pots. RAI-J LXX. 1940.
— The importance of the Eskimo in northeastern North America. PFA-P III. 1946.
— The prehistory of northern North America as seen from the Yukon. SAA-M III. 1947.
— see Birket-Smith, K.

LANDOR, A. H. S.: Alone with the hairy Ainu. London 1893.

LANGSDORFF, G. H. VON: Bemerkungen auf einer Reise um die Welt . . . 1803–07. I–II. Frankfurt a/M 1812.

LANTIS, M.: The Alaskan whale cult and its affinities. AA n. s. XL. 1938.

— The mythology of Kodiak Island, Alaska. JAFL LI. 1938a.

— The social culture of the Nunivak Eskimo. APhS-T XXXV, 3. 1946.

— Alaskan Eskimo ceremonialism. AES-M XI. 1947.

(LA PÉROUSE:) Voyage de . . . author du monde. Publié par M. L. A. Milet-Mureau. II. Paris 1797.

LARSEN, H.: Archeological investigations in Alaska. AAntiq. XV. 1950.

— De dansk-amerikanske Alaska-ekspeditioner 1949–50. GT 51. 1951.

— & RAINEY, F.: Ipiutak and the arctic whale hunting culture. AMNH-AP 42. 1948.

LAUFER, B.: Plate armor in America. AA n. s. XV. 1913.

— Chinese clay figures. I. Prolegomena on the history of defensive armor. FMNH-AS. XIII, 2. 1914.

LAUGHLIN, W. S., & MARSH, G. H.: A new view of the history of the Aleutians. Arctic. IV. Ottawa 1951.

LAVRISCHEFF, T. I.: Two Aleut tales. AA n. s. XXX. 1928.

LEECHMAN, D.: Two new Cape Dorset sites. AAntiq. VIII. 1943.

LEROI-GOURHAN, A.: Archéologie du Pacifique-Nord. IE-TM, XLVII. 1946.

LETHBRIDGE, T. C.: Archaeological data from the Canadian Arctic. RAI-J, LXIX. 1939.

LEWIS, A. B.: Tribes of the Columbia valley and the coast of Washington and Oregon. AAA-M, I. 1906.

LEWIS & CLARKE: Travels to the source of the Missouri and across the American continent. London 1814.

LINNÉ, S.: Darien in the past. Göteborg 1929.

LIPPS, J.: Fallensysteme der Naturvölker. Ethnologica, III. Leipzig 1927.

LISIANSKY, U.: A voyage round the world . . . 1803–06. London 1814.

LOWE, F.: Weniaminow über die Aleutischen Inseln und deren Bewohner. AwKR, II. 1842.

LOWIE, R. H.: The material culture of the Crow Indians. AMNH-AP, XXI, 3. 1922.

LUTKÉ, F.: Voyage autour du monde. I–II. Paris 1835.

LYON, G. F.: The private journal of . . . London 1824.

M'CLURE, R.: The discovery of the North-West Passage. London 1856.

MACKENZIE, A.: Voyages from Montreal . . . through the continent of North America. London 1801.

MACRITCHIE, D.: The Aïnos. IAE, IV, Suppl. 1892.

MALASPINA: Viaje de . . . Colección de documentos inéditos para la historia de España, XV. Madrid 1849.

MARTIN, P. S., QUIMBY, G. I., & COLLIER, D.: Indians before Columbus. Chicago 1947.

MASON, J. A.: Excavations of Eskimo Thule culture sites at Point Barrow, Alaska. 23. International Congress of Americanists. Proceedings. New York 1930.

— Notes on the Indians of the Great Slave Lake area. YU-PA, 34. 1946.

MASON, M. H.: The arctic forests. London 1924.

MASON, O. T.: Primitive travel and transportation. USNM-R 1894. 1896.

— Aboriginal American harpoons. USNM-R 1900. 1902.

MATHIASSEN, T.: Archæology of the Central Eskimos. I–II. RFThE, IV. 1927.

— Material culture of the Iglulik Eskimos. RFThE, VI, 1. 1928.

— Inugsuk, a mediaeval Eskimo settlement in Upernivik district, West Greenland. MG, LXXVII. 1930.

— Archæological collections from the western Eskimos. RFThE, X, 1. 1930a.

— Contributions to the archaeology of Disko Bay. MG, 93, 2. 1934.

MEARES, J.: Voyages . . . from China to the northwest coast of America. London 1790.

MELDGAARD, J.: A Paleo-Eskimo culture in West Greenland. AAntiq., XVII. 1952.

MERCK, C. H.: Ethnographische Beobachtungen über die Völker des Beringsmeeres 1789–91. BA, XX. 1937.

MIERTSCHING, J. A.: Reise-Dagbog . . . 1850 til 1854. Christiania 1860.

MOEBIUS, K.: Über den Fang und die Verwertung der Walfische in Japan. Königl. Preussische Akademie der Wissenschaften. Sitzungsberichte. Berlin 1893.

MOLTKE, H., see Mylius-Erichsen, L.

MONTANDON, G.: La civilisation aïnou. Paris 1937.

MONTELL, G.: Dress and ornaments in ancient Peru. Göteborg 1929.

MOORE, R. D.: Social life of the Eskimo of St. Lawrence Island. AA n. s. XXV. 1923.
MORICE, A. G.: The western Dénés — their manners and customs. CI-P. 3. ser., VI. 1890.
— Notes archæological, industrial and sociological on the western Dénés. CI-T. IV. 1895.
MUNRO, N. G.: Prehistoric Japan. Yokohama 1911.
MURDOCH, J.: A study of the Eskimo bows in the U. S. National Museum. USNM-R 1884. 1885.
— Ethnological results of the Point Barrow expedition. BAE-R, IX. 1892.
MUSTERS, G. C.: At home with the Patagonians. London 1873.
MYLIUS-ERICHSEN, L., & MOLTKE, H.: Grønland. København 1906.

NANSEN, F.: In northern mists. I–II. London 1911.
NELSON, E. W.: The Eskimo about Bering Strait. BAE-R, XVIII, I. 1899.
New light on the early history of the greater Northwest. The manuscript journals of A. Henry and D. Thompson. Ed. E. Coues. I. New York 1897.
NIBLACK, A. P.: The coast Indians of southern Alaska and northern British Columbia. USNM-R 1888. 1890.
NOMLAND, G. A.: Sinkyone notes. UC-PAAE, XXXVI, 2. 1935.
NORDENSKIÖLD, A. E.: Vegas färd kring Asien och Europa. I–II. Stockholm 1880–81.
NORDENSKIÖLD, E.: Origin of the Indian civilizations in South America. Comparative Ethnographical Studies. IX. Göteborg 1931.

OLSON, R. L.: The Quinault Indians. UW-PA, VI, 1. 1936.
OSGOOD, C. B.: The ethnography of the Great Bear Lake Indians. NMC-AR. 1933.
— Contributions to the ethnography of the Kutchin. YU-PA, XIV. 1936.
— The ethnography of the Tanaina. YU-PA, XVI. 1937.
— Ingalik material culture. YU-PA, XXII. 1940.

PARK, W. Z.: Shamanism in western North America. NWU-SSSc, II. 1938.
PARRY, W. E.: Journal of a second voyage for the discovery of a North-West Passage. London 1824.
PATERSON, T. T.: Eskimo string figures and their origin. AArct., III. 1949.
PETITOT, É.: Traditions indiennes du Canada nord-ouest. Paris 1886.
— Les grands Esquimaux. Paris 1887.
PETRI, H.-H.: Der Schild der Indianer. Hamburg 1938.
PETROFF, I.: Report on the population, industries, and resources of Alaska. 10th Census of the United States. VIII. Washington 1884.
PINART, A. L.: Eskimaux et Koloches: Idées religieuses et traditions des Kaniagmioutes. Revue d'Anthropologie. II. Paris 1873.
POKORNY, J.: Britische Urbevölkerung. Eberts Reallexicon der Vorgeschichte. II. 1925.
PORTER, R. P.: Report on the population and resources of Alaska. 11th Census of the United States. Washington 1893.
PORTLOCK, N.: A voyage round the world. London 1789.

QUIMBY, G. I.: Periods of prehistoric art in the Aleutian Islands. AAntiq. XI. 1945.
— Prehistoric art of the Aleutian Islands. F-A. XXXVI. 1948.
— see Martin, P. S.

RAINEY, F. G.: Eskimo prehistory: the Okvik site on the Punuk Islands. AMNH-AP, XXXVII, 4. 1941.
— see Geist, O. W., and Larsen, H.
RASMUSSEN, KNUD: The Netsilik Eskimos. RFThE, VIII, 1–2. 1931.
— Intellectual culture of the Copper Eskimos. RFThE, IX. 1932.
— The Alaskan Eskimos. (H. Ostermann & E. Holtved edd.) RFThE, X, 3. 1952.
RATZEL, F.: Ueber die Stäbchenpanzer und ihre Verbreitung im nordpazifischen Gebiet. Königl. Bayerische Akademie der Wissenschaften. Sitzungsberichte, philos.-philol. und histor. Classe 1886. München 1887.
RAY, V. F.: The Sanpoil and Nespelem. UW-PA, V. 1933.
— Lower Chinook ethnographical notes. UW-PA, VII, 2. 1938.
— Culture element distributions: XXII. Plateau. UP-AR, VIII, 2. 1942.
REAGAN, A. B.: Whaling of the Olympic Peninsula Indians of Washington. Natural History, XXV. New York 1925.
RICHARDSON, J.: Arctic searching expedition. I–II. London 1851.
RINK, H.: Om Grønlændernes gamle Tro og hvad der af samme er bevaret under Kristendommen. Aarbøger for nordisk Oldkyndighed. Kjøbenhavn 1868.

RITCHIE, W. A.: The Pre-Iroquoian occupations of New York State. RM-M, I. 1944.

RÓHEIM, G.: The pointing bone. RAI-J, LV. 1925.

ROSTLUND, E.: Freshwater fish and fishing in native North America. University of California Publications in Geography. IX. Berkeley & Los Angeles 1952.

ROWLEY, G.: The Dorset culture of the eastern Arctic. AA, n. s. XLII. 1940.

Руденко, С. И: Древняя культура Берингова Моря и эскимосская проблема. Москва-Ленинград 1947.

— see Волковъ, Ф. К.

SACHS, K.: Geist und Werden der Musikinstrumente. Berlin 1929.

(SAGOSKIN, L.:) Ueber die Reise und Entdeckungen des Lieutenant . . . im Russischen Amerika. AwKR, VI-VII. 1848-49.

(SAIKOF:) Auszug aus dem Reisebericht des Russischen Steuermanns . . . . über eine bis an das feste Land von Amerika geschehenen Schiffahrt. NNB, III. 1782.

SAPIR, E., see Spier, L.

SARYTSCHEW, G.: Achtjährige Reise im nordöstlichen Sibirien, auf dem Eismeere und dem nordöstlichen Ozean. I–II. Leipzig 1805–06.

SAUER, M.: An account of a geographical and astronomical expedition to the northern parts of Russia. London 1802.

SCHELECHOF: Reise von Ochotsk nach Amerika 1783–87. NNB, VI. 1793.

SCHENCK, W. E., see Strong, W. D.

SCHEUBE, B.: Die Ainos. Mitteilungen der Deutschen Gesellschaft für die Natur- und Völkerkunde Ostasiens. III. Yokohama 1880–84.

SCHNELL, I.: Prehistoric finds from the island world of the Far East. MFEA-B, 4. 1932.

SCHRENCK, L. VON: Reisen und Forschungen im Amur-Lande. III. St. Petersburg 1881–95.

SEEMANN, B.: Narrative of a voyage of H. M. S. Herald 1845–51. I–II. London 1853.

SIEBOLD, PH. F. VON: Nippon. I–II. Würzburg & Leipzig 1897.

(SILVY, A.?:) Relation par lettres de l'Amérique septentrionale 1709 et 1710. Ed. P. C. de Rochemonteix. Paris 1904.

SIMPSON, TH.: Narrative of the discoveries on the north coast of America . . . 1836–39. London 1843.

SIRELIUS, U. T.: Über die Sperrfischerei bei den finnisch-ugrischen Völkern. SFOu-TE, III. 1906.

SKINNER, A.: Notes on the eastern Cree and northern Saulteaux. AMNH-AP, IX. 1911.

SMITH, M. W.: Archaeology of the Columbia-Fraser region. SAA-M, VI. 1950.

SOLBERG, O.: Eisenzeitfunde aus Ostfinmarken. Videnskabs-Selskabets Skrifter, II. Historisk-filosofisk Klasse. 7. Christiania 1909.

SOLECKI, R. S.: New data on the inland Eskimo of northern Alaska. WASc-J, XL. 1950.

SPECK, F. G.: Eskimo and Indian backgrounds in southern Labrador. General Magazine. XXXVIII. Burlington, N. J., 1935.

SPIER, L.: Klamath ethnography. UC-PAAE, XXX. 1930.

— & SAPIR, E.: Wishram ethnography. UW-PA, III. 1930.

SPINDEN, H. J.: The Nez Percé Indians. AAA-M, II. 1908.

SPROAT, G. M.: Scenes and studies of savage life. London 1868.

STÄHLIN, VON: Das von den Russen . . . entdekte nördliche Insel-Meer zwischen Kamtschatka und Nordamerika. Stuttgart 1774.

STEENSBY, H. P.: Contributions to the ethnology and anthropogeography of the Polar Eskimos. MG, XXXIV. 1910.

STEFÁNSSON, V.: My life with the Eskimo. London & New York 1913.

— The Stefánsson-Anderson arctic expedition of the American Museum: Preliminary ethnological report. AMNH-AP, XIV, 1. 1914.

STELLER, G. W.: Beschreibung von dem Lande Kamtschatka. Frankfurt & Leipzig 1774.

— see Golder, F. A.

STERNBERG, L.: The Turano-Ganowánian system and the nations of North-East Asia. 18th International Congress of Americanists. Proceedings. II. London 1913.

STEWARD, J. H., see Strong, W. D.

STEWART, O.: Culture element distributions: XIV. Northern Paiute. UC-AR, IV, 3. 1941.

— Culture element distributions: XVIII. Ute-Southern Paiute. UC-AR, VI, 4. 1942.

STRONG, W. D.: An introduction to Nebraska archeology. SI-MC, 93, 10. 1933.

— From history to prehistory in the northern Great Plains. SI-MC, 100. 1940.

— SCHENCK, W. E., & STEWARD, J. H.: Archaeology of the Dalles-Deschutes region. UC-PAAE, XXIX, 1. 1930.

Summary of the climatological data of Alaska. Section 1. U. S. Department of Agriculture, Weather Bureau. Washington.

SWAN, J. G.: The Indians of Cape Flattery. SI-CKn. 220. 1870.

SWANTON, J. R.: Social condition, beliefs, and linguistic relationship of the Tlingit Indians. BAE-R, XXVI. 1908.
— The Indians of the southeastern United States. BAE-B, 137. 1946.

TEIT, J.: The Thompson Indians of British Columbia. AMNH-MJ, II. 1900.
— The Lillooet Indians. AMNH-MJ, II. 1900–08a.
— The Shuswap. AMNH-MJ, II. 1900–08b.
— The Middle Columbia Salish. UW-PA, II. 1928.
— The Salishan tribes of the western plateaus. BAE-R, XLV. 1930.
THALBITZER, W.: Ethnographical collections from East Greenland. MG, XXXIX. 1914.
— Parallels within the culture of arctic peoples. Annaes do XX Congresso de americanistas. I. Rio de Janeiro 1924.
— Die kultischen Gottheiten der Eskimos. Archiv für Religionswissenschaft. XXVI. Leipzig 1928.
THOMPSON, D., see New Light, etc.
THOMPSON, STITH: Tales of the North American Indians. Cambridge, Mass. 1929.
THORDEMAN, B.: The Asiatic splint armour in Europe. AArch. IV. 1933.
THORNTON, H. R.: Among the Eskimos of Wales, Alaska. Baltimore, London, Oxford 1931.
TORII, R.: Études archéologiques et ethnologiques. Les Aïnou des îles Kouriles. Tokyo Imperial University. Journal of the College of Science. XLII. Tokyo 1919.
TOWNSEND, J. K.: Narrative of a journey across the Rocky Mountains to the Columbia River. Early Western Travels, ed. R. G. Thwaites. XXI. Cleveland 1905.
TSUCHIYA, T.: An economic history of Japan. Transactions of the Asiatic Society of Japan. 2. ser. XV. Tokyo 1937.
TURNER, L. M.: Ethnology of the Ungava District. BAE-R, XI. 1894.

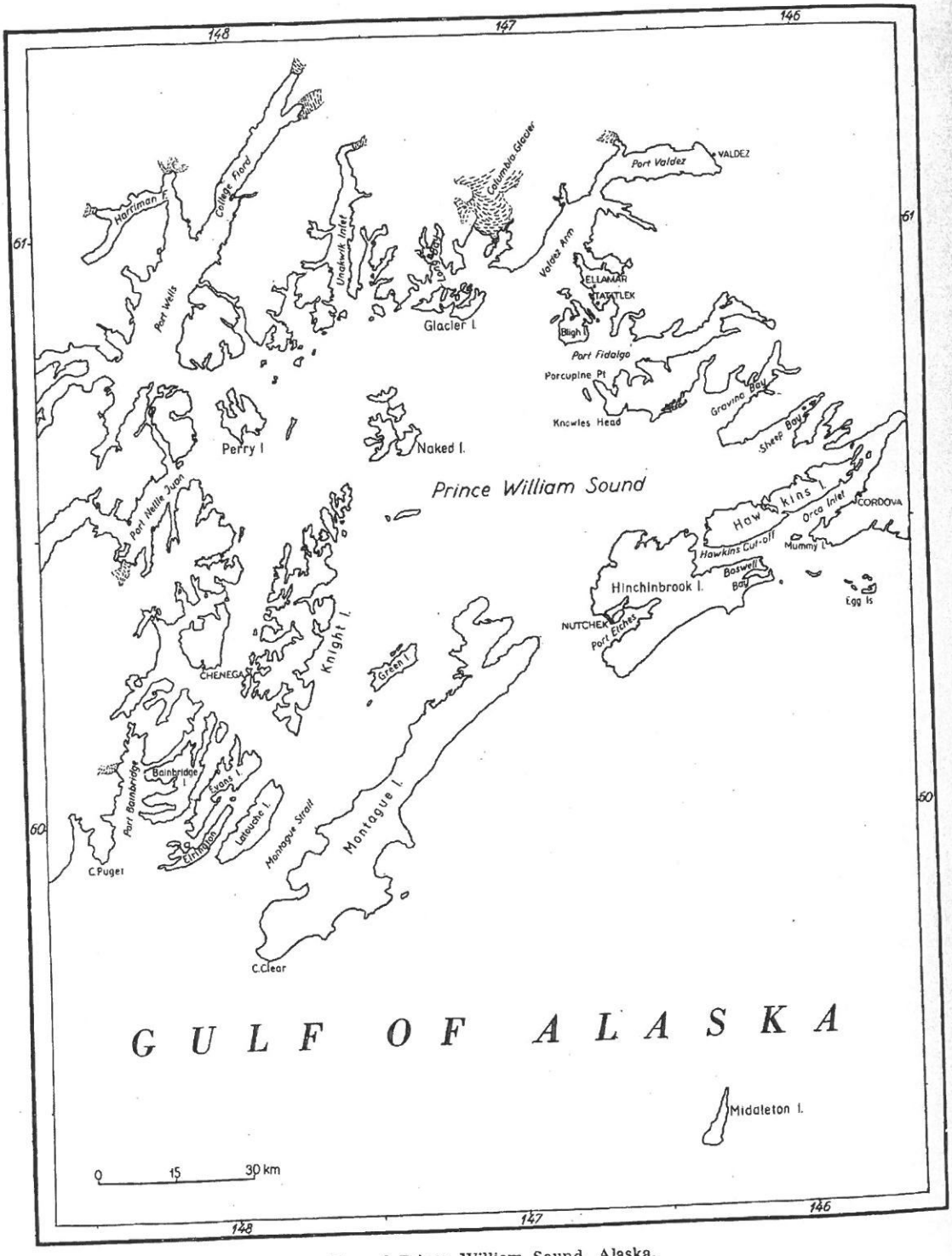
Ухтомский, Д.: Жировыя лампочки у приполярныхъ народовъ. Ежегодникъ русск. антропол. общества. IV. С.-Петербургъ 1913.

VANCOUVER, G.: A voyage of discovery to the Pacific Ocean. III. London 1798.
VOEGELIN, E. W.: Culture element distributions: XX. Northeast California. UC-AR, VII, 2. 1942.

Волковъ, Ф. К., и Руденко, С. И.: Этнографическія коллекціи изъ бывшіхъ россійско-американскихъ владѣній. Матеріалы по этнографіи Россіи. I. С.-Петербургъ 1910.

WATERMAN, T. T.: The whaling equipment of the Makah Indians. UW-PPSSc. I, 1. 1920.
WEBB, W. S., & HAAG, W. G.: The Chiggerville site, site I; Ohio County, Kentucky. UK-RAA, IV, 1. 1939.
— & DE JARNETH, D. L.: An archeological survey of Pickwick basin in the adjacent portions of the states of Alabama, Mississippi and Tennesee. BAE-B, 129. 1942.
WEYER, E. M.: An Aleutian burial. AMNH-AP, XXX, 3. 1929.
— Archaeological material from the village site at Hot Springs, Port Möller, Alaska. AMNH-AP, XXXI, 4. 1930.
— The Eskimos. New Haven 1932.
WILLOUGHBY, C.: Indians of the Quinaielt Agency, Washington Territory. SI-AR, 1886, I. 1889.
WINTEMBERG, W. J.: Eskimo sites of the Dorset culture in Newfoundland. AAntiq. V. 1939–40.
WISSLER, C.: Material culture of the Blackfoot Indians. AMNH-AP, V, 1. 1910.
— Harpoons and darts in the Stefánsson collection. AMNH-AP, XIV, 2. 1916.
— The relation of nature to man in aboriginal America. New York 1926.
WOLDT, A.: Capitain Jacobsen's Reise an der Nordwestküste Amerikas. Leipzig 1884.
WRANGELL, VON: Statistische und ethnographische Nachrichten über die Russischen Besitzungen an der Nordwestküste von Amerika. BKRR, I. 1839.

ZIMMERMANN, H.: Reise um die Welt mit Capitain Cook. Mannheim 1781.



Map of Prince William Sound, Alaska.