

AMONG THE
TUNDRA PEOPLE

HARALD U. SVERDRUP

TRANSLATED BY
MOLLY SVERDRUP

1939



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The map of the Chukchi National Okrug was prepared by Fred Crowe, based on the American Geographic Society's *Map of the Arctic Region* (1975). The map of Siberia was copied from Terence Armstrong's *Russian Settlement in the North* (1965) with permission of the Cambridge University Press. Sam Hinton drew the picture of a reindeer on the cover. Martin W. Johnson identified individuals in some of the photographs.

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The following individuals, most of whom were closely associated with Sverdrup, out of respect for him and wishing to assure preservation of this unusual account, met part of the cost of publication.

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FOREWORD

Harald Ulrik Sverdrup (1888-1957) was born into a family active in the political, religious, and scientific life of Norway. His cousin Otto Sverdrup was an energetic Arctic explorer and captain of Fridtjof Nansen's ship *Fram*. Sverdrup enrolled in the University of Oslo in 1908 and three years later became assistant to Professor V. Bjerknes who was applying hydrodynamics to problems in meteorology and oceanography. In 1913 he went with Bjerknes to the University of Leipzig where he completed his doctoral dissertation on the North Atlantic Tradewind.

In 1917 Sverdrup agreed to take charge of the scientific work of Roald Amundsen's North Polar Expedition on *Maud*. He had already shown great ability as a theoretical geophysicist, and now wanted experience in making observations in the field. His next seven years are summarized in the present volume and in *Three Years in the Ice with Maud* (in Norwegian) (1926). At the end of these years he had more experience and understanding of Arctic ice and weather than all but a handful of predecessors and contemporaries among scientists.

On his return to Norway in 1925, he succeeded Bjerknes as Professor of Dynamical Oceanography in the University of Bergen. Twice during the next ten years he spent half a year as a guest investigator in the Department of Terrestrial Magnetism in the Carnegie Institution of Washington. In 1934 he spent two months on the high snowfields of Spitzbergen and later published the first quantitative study of the heat budget of a glacier.

In 1936 he accepted appointment, for a limited period, as Director of the Scripps Institution of Oceanography. World War II intervened and from 1941 to 1945 he devoted his entire effort to clarifying the effects of oceanic conditions

on military operations at sea, and, in particular, developing methods of predicting waves and surf for planning and executing amphibious assaults.

Between 1945 and 1948 he reassembled and enlarged the staff and facilities of Scripps, preparing the institution for its role as one of the leaders in the development of oceanography into an indispensable member of the cluster of sciences of One World.

In 1948 he returned to Norway to become the first director of the new Norwegian Polar Institute. In this capacity he was the principal organizer of the 1951/52 expedition to Queen Maud Land in Antarctica, which was "in the range and intensity of its scientific work the most productive . . . expedition to Antarctica"* before the International Geophysical Year (1957/58).

He received many honors from his native country, the United States, the United Kingdom, and the Federal Republic of Germany, and was elected to office in several international learned societies.

Sverdrup's enduring influence on oceanography is also partly a result of his work as organizer and senior author with M. W. Johnson and R. H. Fleming of *The Oceans* (1942), which for more than twenty years was the most comprehensive textbook on the subject. He also originated and taught the first systematic general course in oceanography, which produced a generation of leaders in this country and Canada and, through his students, around the world.

Among the Tundra People embodies the warm and human reflections of a young man, from one of the most civilized countries in the world, near the beginning of a brilliant career as a geophysicist, cast unexpectedly among one of the most primitive societies that had survived into the twentieth century. His attitude toward his hosts and

*L. P. Kirwan, Director of the Royal Society, in his *History of Polar Exploration*, 1954.

neighbors was sympathetic understanding. The result is a picture of the inhabitants of this little nomadic village not as case histories but as people.

CONTENTS

Chapter	Page
Acknowledgments	
Foreword	
Six Years in the Arctic	1
The Chukchi and Their Country	13
Traveling with Reindeer	37
Winter Life	57
Games and Story Telling	83
Trade, Law, and Love	103
Ceremonies and Traditions	135
Notes on the Lamut	175
Departure	199
Reflections on the Lives of the Chukchi	203
History of the Chukchi, by Marston C. Sargent	213
Reading List	225
Illustrations	
1. Sverdrup and his new friends	35
2. Gregory and Kaankalj	59
3. Coastal Chukchi	85
4. Coastal Chukchi village	107
Maps	
1. Siberia and adjacent Arctic	endpapers*
2. Sverdrup's map of his route	23
3. Modern map of the Chukchi National Okrug	212

*in hardbound copies; in paperback books, last double page spread in text.

Cover design
Reindeer by Sam Hinton

SIX YEARS IN THE ARCTIC

In July, 1918, when I left Norway on board Roald Amundsen's ship, *Maud*, it did not for a moment occur to me that in a little more than a year I should find myself clad in reindeer skins, one suit with the hairy side out and one suit with the hairy side in, or that I should have nothing to eat but reindeer meat morning, noon, and night. I did not dream that I should live a winter among the Reindeer Chukchi, one of the least known tribes of eastern Siberia, be treated as one of their own, be allowed to participate in all their ceremonies, listen to the weird music of the medicine men, or become acquainted with their marriage rituals and their primitive burial customs. Roald Amundsen had no intention of letting anyone in his party study Siberian natives; his plan was to let his ship drift with the ice across the Polar Sea.

From 1903 to 1906 Amundsen had sailed through the Northwest Passage in the small ship *Gjoa*,* which stands now in Golden Gate Park, San Francisco, and is the first vessel to have sailed from the Atlantic to the Pacific Ocean north of the American continent. On December 14, 1911,

**Gjoa* was returned to Norway in 1971.

Among the Tundra People

Amundsen had added to his fame by planting the Norwegian flag on the South Pole. However, he was not satisfied with his achievements and wished to repeat Fridtjof Nansen's drift across the Polar Sea, and perhaps make a dash for the North Pole. Although *Fram*, Fridtjof Nansen's vessel,* which he had used on the journey to the Antarctic, had never been damaged by ice, she had not been able to stand up against the climate of the tropics. The hull had been weakened by dry rot and the ship could no longer be used in the Arctic. During World War I, Amundsen had a new ship built and named her *Maud* after the Queen of Norway.

Amundsen planned to sail east along the northern coast of Siberia to the vicinity of Bering Strait, penetrate to the north from this region, and then allow *Maud* to be closed in by the ice in the hope that the drifting ice would carry her across the Polar Sea to the region north of Spitsbergen. I was to be in charge of the scientific work of the expedition. I wanted to repeat Nansen's observations from the deep Polar Sea, and in my ambitious moments I dreamed that, by means of improved instruments and accurate methods, I would make the Polar Sea the best explored sea of the world.

When we left Norway we hoped to begin the drift in the ice that year, and to return after three or four years, but we had tough luck. Proceeding along the Arctic coast of Siberia we met unfavorable ice conditions and on September 13, 1918, all advance was stopped. We had to establish winter quarters near Cape Chelyuskin, the northern cape of the Asiatic continent. During the winter we made comprehensive weather observations, and in spring we surveyed the most northerly peninsula of the world, but we awaited eagerly the coming of summer when we hoped to continue to the east to begin our real task. Summer came but brought new disappointments. On land the snow melted and in some

*The truly greatest among polar explorers was Fridtjof Nansen (1861-1930),

Six Years in the Arctic

a distinguished scientist, a bold and tremendously capable explorer, a statesman, and a world citizen. At age 21 he had his first experience with polar conditions while aboard a Norwegian sealer where he was gathering data on seals off Greenland. His glimpses of the inland ice inspired him to organize and, in 1888, lead a party of six who became the first men to cross the Greenland icecap. They traveled six hundred kilometers, much of it at an altitude of 2500 meters above sea level in temperatures that often were forty degrees below zero.

In 1884 he read an article by Professor Mohn about wreckage from *Jeannette*, which had been found frozen in ice stranded on the west coast of Greenland. Mohn's conjecture was that the ice must have drifted across the Polar Sea. By this and other evidence, Nansen was convinced that it would be possible to freeze a suitably built ship in the ice near the site north of the New Siberian Islands where *Jeannette* was lost and to drift across the sea, possibly passing close to the Pole, to open water on the other side. Such an operation would permit many observations on the weather, the currents, and other oceanic phenomena across a large sector of the Polar Sea.

In the face of much criticism, he enlisted support, consulted sealers and whalers experienced with polar conditions, and supervised the design and construction of *Fram*. In accordance with the advice of the sealers and others, he had the ship built with a smooth rounded hull with no projections to be gripped by the ice and so shaped that when squeezed by ice it would be lifted instead of crushed.

In June 1893, *Fram* sailed with Otto Sverdrup as captain, passed through the Taimyr Strait, and in September was allowed to be frozen in the ice west of the northern New Siberian Islands. In March 1895, Nansen concluded that *Fram*'s course would not pass any closer to the Pole. With Frederick Johansen, a crew member, he left the ship in charge of the captain and attempted to reach the Pole, seven hundred kilometers away, by dog sledge. After they had walked for nearly four weeks, position determinations showed that the drifting ice was carrying them away from the Pole almost as fast as they were walking toward it. With regret they abandoned their plan and set a course toward Franz Josef Land, the nearest point frequently visited by explorers and other seafarers. At the end of August they reached one of the northern islands and built a stone hut in which they lived until mid-May. Sailing southward from island to island, in June they had a dramatic encounter with Frederick Jackson, leader of an English expedition. A week after reaching Norway with the Jackson expedition, Nansen received from Otto Sverdrup in Tromsø a telegram announcing that *Fram* had reached port in good condition with all well on board. The spectacular success of this daring exploration of course brought applause and fame.

In the following years he was able to continue some of his zoological studies and to take part in several briefer expeditions, but he became involved in larger affairs. He was a leader in the movement to separate Norway from Sweden, which was accomplished in 1905. He was the first ambassador from Norway to England in 1906/08. In 1917 he was head of a mission to the United States to arrange for shipment of essential supplies to Norway during the World War.

Among the Tundra People

places a scanty vegetation appeared between the stones, but near shore the ice did not break up. From the crow's nest we could see open water stretching to the horizon, but to us progress was barred by more than a kilometer of solid ice, three or four meters thick.

In the middle of August we started to blast our way out, but it took us one full month. On September 12, 1919, we reached the open water. Winter was close but we turned east, hoping that luck might follow us and we would be able to begin the drift. An attempt to penetrate to the north on the eastern side of the New Siberian Islands failed, and we had to continue toward Bering Strait, but we did not reach even that far. We worked our winding way through ice and fog until we reached Ayon Island, about a thousand kilometers from Bering Strait, but there the ice tightened, and on September 23 it was evident that we should have to establish winter quarters for the second time. The coast of Ayon Island was straight, without any sheltering bay, and the waters were so shallow that hummocked ice was grounded to a distance of nearly two kilometers from the shore. We found some sort of protection on the shore side of some large hummocks that had stranded in less than ten meters of water, and there we stopped. We had to — we had no choice.

At Cape Chelyuskin we had been six or eight hundred kilometers from the nearest inhabited place. At Ayon Island the Russian settlements on the Kolyma River were about

Nansen was head of the Norwegian delegation at the founding of the League of Nations and a member of the Assembly of the League until his death. In 1920 the League appointed him High Commissioner to arrange repatriation of about five hundred thousand German and Austro-Hungarian prisoners of war in Russia. The Soviet Union would not recognize his League of Nations credentials but negotiated with him personally. He completed the task in 1922. In 1921 the International Red Cross asked him to direct efforts to relieve famine in the Soviet Union. He personally raised the funds. In 1922 he was awarded the Nobel Peace Prize.

three hundred kilometers to the west, and the first permanent settlement of the Coast Chukchi was less than two hundred kilometers to the east, but, according to the information available to us, Ayon Island itself should be uninhabited. Therefore we were surprised to see tents on the coast and were anxious to learn to which tribe the people living in these tents belonged. We also wished to find out if any news from the World War had reached this far corner of Asia. We had left Norway in July 1918, and were without wireless since war restrictions had made it impossible to secure such equipment. Therefore, in September 1919, we had been without news for more than a year.

The grounded ice between our ship and the shore was rapidly cemented together by young ice which froze in the openings between hummocks, and on the second day after our arrival it could be safely crossed. Amundsen went ashore, accompanied by the captain of *Maud* and the second engineer, who spoke Russian. After considerable discussion they had decided to go unarmed. As they approached the tents, they were met by three natives, also unarmed, one of whom spoke enough Russian to make conversation possible. Upon his return, Amundsen could tell us that these natives were Chukchi who, in contrast to the permanently settled Chukchi nearer to Bering Strait, were nomads and owned great herds of domesticated reindeer. They spent the summer on the coast, but with the approach of winter they moved to the forest to the south of the coastal mountain range, returning again in spring.

“But what about the war?” we asked.

Amundsen shook his head.

“They appeared not to know that the so-called civilized world has been at war since 1914.”

During the next days, close contact was established between us and our unexpected neighbors. They came on board in flocks, consumed unbelievable quantities of scalding

Among the Tundra People

hot tea, and were more than willing to trade fox fur for small amounts of tobacco. Trade was very bad, they complained. In two seasons no ship had reached the Kolyma River; when they went there last spring to trade they got no tobacco for their fur, only promises for "next year." This annual journey to the spring market in Kolyma evidently represented their only contact with the outside world. Never before had a ship stopped at Ayon because, as we learned later, the shallow waters surrounding the islands are feared by mariners. Many of our visitors had never been aboard a ship, and some of them had never seen a white man.

Amundsen, during his winters at King Williams Land north of Canada, had given the Netchilli Eskimo women needles of steel in exchange for their needles of bone, and had taught the Netchilli hunters to use rifles. He realized that here was a unique opportunity to study and become closely acquainted with one of the most isolated tribes of Siberia. We might even have the last opportunity to learn their ancient customs, for civilization rapidly makes its influence felt even in the most remote regions, and within a generation or less the Reindeer Chukchi might lose their identity.

Amundsen did not wish to leave the ship himself, but he suggested that I should join the Chukchi when they left to go inland, should spend the winter among them in the forest and return with them in the following spring. It was essential that I should go alone, for if two of us went, we would use our own language with each other and form a small foreign colony, whereas one person had a great chance of being accepted as a member of the group and treated as an equal.

I was eager to go, although language and ethnography were far removed from the fields with which I felt acquainted. I had, however, always been attracted by descriptions of

Six Years in the Arctic

primitive people, and I did not want to miss this opportunity to learn by personal experience the daily customs of “ancient man” and, perhaps, also to learn the Chukchi outlook on life. The routine observations on *Maud* could be taken care of in my absence, and the scientific work on board would not suffer seriously.

Before proceeding with the narrative of my winter among the Chukchi, however, I wish briefly to outline the fate of the *Maud* expedition. In the following summer, 1920, the ice broke up early, and Amundsen decided to go to Nome, Alaska in order to replenish our provisions and stores before making a third attempt to get into the drift ice. After a visit in Nome — where we finally learned the outcome of the war — we returned through Bering Strait, but we met with even more unfavorable ice conditions. In the struggle against the ice we broke the ship’s propeller and damaged the shaft, and we had to seek our third winter quarters only a hundred kilometers west of Bering Strait. During this winter, 1920/21, I travelled with dog teams along the Chukotski Peninsula, covering about two thousand kilometers and visiting every native settlement. My companion and I traveled in Chukchi style; we carried no provisions but relied upon the hospitality of the natives, ate their food, and slept in their tents. In this manner we became well acquainted with their daily life, and, by comparison with my experiences of the preceding winter, I was struck by the changes that the closer contact with “civilization” had brought. Contagious diseases were alarmingly widespread. The natives were entirely dependent upon the traders who sold them tea, tobacco, rifles, and ammunition, and who also supplied them with flour, sugar, and raisins by means of which a vile but highly potent home brew was produced. But even here were present some of the characteristics that had appealed to me during my winter inland.

Among the Tundra People

In the summer of 1921, *Maud* had to be sailed to the nearest drydock which was in Seattle, thirty-five hundred kilometers away. During 1921/22 her winter quarters were in Lake Union, Washington, but in the spring of 1922 she was again fitted out for the fourth attempt to enter the drift ice. In the meanwhile Amundsen had decided to attempt a flight across the Polar Sea from Point Barrow, Alaska, to Spitsbergen. His airplane, an all-metal Junkers plane, was carried by *Maud* to Point Hope, Alaska, from where it was transferred to a trading schooner that took it to Wainwright. In the spring of 1923, Amundsen tried to take off but, since the plane could not carry the necessary amount of fuel, the attempt had to be given up. In 1924, Amundsen tried in vain to organize an expedition from Spitsbergen, but in the spring of 1925 he had the good fortune to obtain the assistance of Lincoln Ellsworth, with whom he undertook a flight toward the North Pole in two airplanes. The flight became more spectacular than anticipated. After going down in latitude 88°, one of the planes had to be abandoned, and it took three weeks before an ice strip could be cleared and the party could return to Spitsbergen in the second plane. Finally, in 1926, Amundsen and Ellsworth crossed the Polar Sea from Spitsbergen to Alaska on board the airship *Norge*. But that is a different story.

On July 28, 1922, *Maud* left Point Hope with Oscar Wisting as captain and myself in charge of the scientific work. We were to make a fourth attempt to reach the drift-ice. This time we succeeded, and *Maud* was enclosed in the ice to the west of Wrangel Island, not far from the place where the ill-fated *Jeannette** had been caught in 1879. For

*In July 1879, Lieutenant George Washington DeLong, USN, departed San Francisco, in newly renamed *Jeannette*, charged with testing a hypothesis that a large island or continent existed in the central Arctic. *Jeannette* had been used formerly in Arctic waters and was outfitted and strengthened by the United States Navy. Heading north, within a few weeks she was frozen fast in the ice

Six Years in the Arctic

two years we drifted with the ice, more or less paralleling the coast of Siberia, until in the summer of 1924, we were on the northern side of the New Siberian Islands. During these years *Maud* was subjected to severe ice pressure, which would have crushed any ordinary vessel, but, thanks to her round shape, she was always lifted by jamming ice and was never in serious danger.

During the sojourn in Seattle, a wireless station had been installed on board, and in February 1924, we received orders from Amundsen that we should get out of the ice, if possible, and return through Bering Strait. We could of ourselves do nothing about it, but it so happened that the ice scattered, and we were able to turn south instead of continuing the drift which perhaps would have brought us to Spitsbergen after three more years. We did not reach Bering Strait in 1924, however. Following the coast we met unfavorable ice conditions, as usual, and had to establish new winter quarters at Bear Islands, a group of small islands north of the delta of the Kolyma River. In 1925 we finally left the Arctic. We reached Seattle on October 5, and a few days before Christmas of 1925 I was back again in Norway after an absence of seven and one-half years.

Maud never carried a special crew. When we were under way, everyone in the party was a sailor, but in winter quarters or in the drift ice everyone assisted in the scientific work. When we left Point Hope in 1922, we were only eight

and drifted until June 12, 1881, when she was crushed and sank northeast of the New Siberian Islands (Novosibirskiye Ostrova on Map 1). With three boats on sledges the crew traveled southwest toward the mouth of the Lena. After brief stops at several barren islands, on September 12, as they approached the delta, one of the three boats with all on board disappeared in a storm. The other two lost sight of each other and landed many miles apart. Both parties started inland but found no evidence of human habitation or use. Of the party under Captain DeLong only two found assistance and survived. DeLong, one of the last to succumb, kept a log in which the last entry was on October 30. All of the other party, under Chief Engineer George Wallace Melville, USN, reached safety.

Among the Tundra People

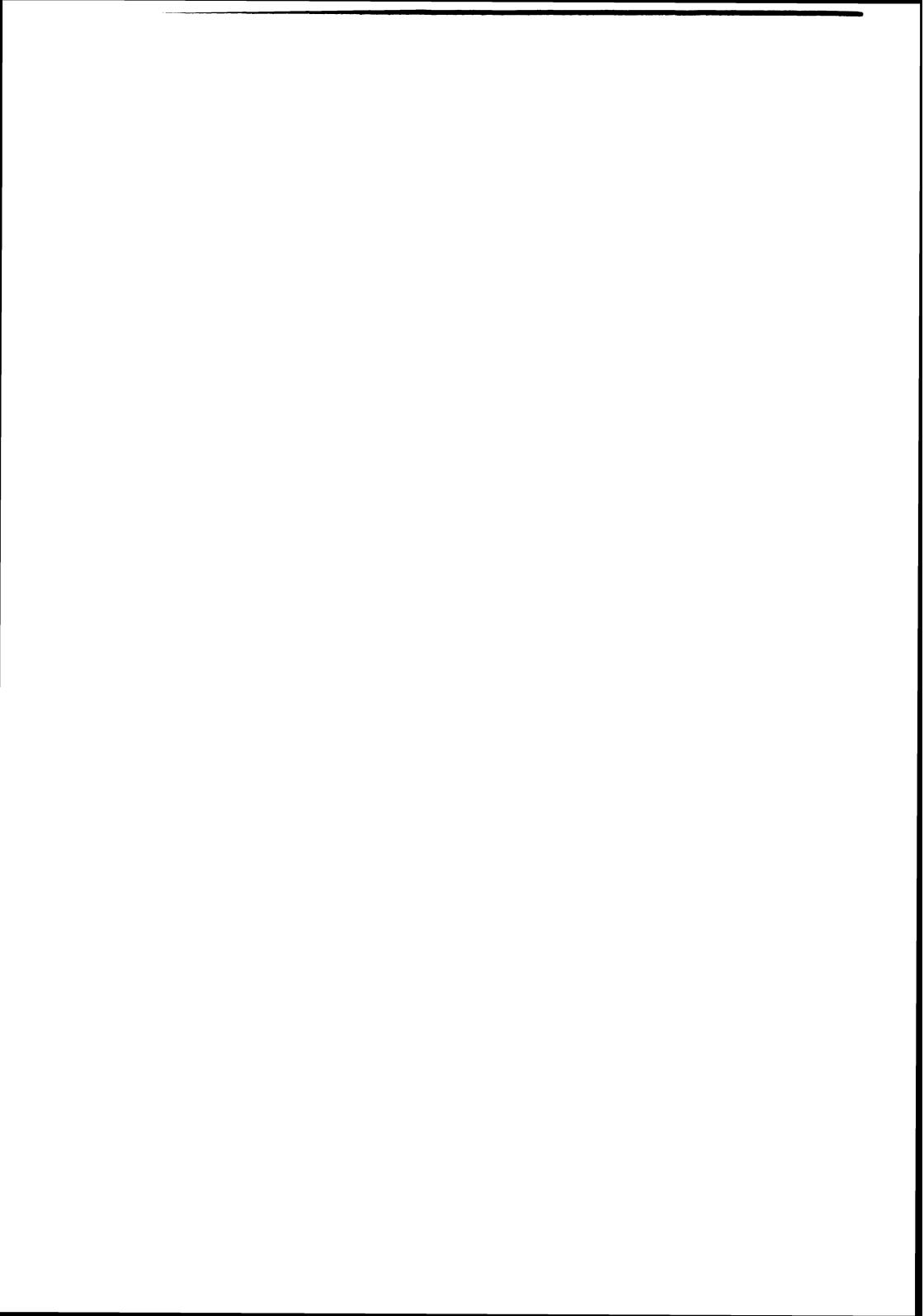
men on board, including a native boy. In the summer of 1923 one of our comrades took ill and died, and for the remaining two years there were only seven of us. We worked together to carry out our scientific program which, thanks to the experience gained in the preceding years, had become well adjusted to the conditions that we encountered. I hope that some of our contribution to the knowledge of the Arctic will be of lasting value, but if I am asked what I consider our greatest accomplishment, my answer is: "That we parted friends for life."

Looking back now upon my six years in the Arctic, I know that I would not have missed any of the experiences these years brought, and especially my winter among the Chukchi. Slim contacts with civilization had not changed the traditional customs of the Chukchi. They were not hunters, and the introduction of firearms and steel knives had not altered their manner of securing a livelihood. They had to protect their herds of reindeer against wolves, but when doing so it mattered little whether they were armed with a modern rifle or with spear and bow and arrows. It mattered little whether, when stabbing one of their reindeer, they used a knife of steel or a knife of stone. They had matches, but their old implements for drilling fire were still used on all of the numerous occasions when a fire was to be made for ceremonial purposes. Today, since the Soviet Government has established schools among them and they are taught to read and write their own language, and are given rational medical care, they are probably discarding many of their primitive conceptions of nature. I think I dare say that I am not only the first white man who lived a winter among the Reindeer Chukchi, but that I am also the last who lived among them before closer contacts with civilization started to change their habits and their outlook on life.

During the first weeks after my return to *Maud* in 1920, I wrote a narrative about what I had seen and learned. I did

Six Years in the Arctic

not describe my experiences in chronological sequence, but I attempted to give a consecutive account of the life of the Chukchi, perhaps crowding it too much with details which at that time seemed characteristic and significant. This narrative follows. I have omitted a few paragraphs and made a few additions based on my diaries, but, on the whole, the story appears as I wrote it when every little incident was fresh in my memory.



THE CHUKCHI AND THEIR COUNTRY

On board *Maud* we derived some knowledge of the history of the Chukchi from N. A. E. Nordenskiöld's story of *Vega's* voyage around Asia and Europe in 1878/79.*

The Russians had first come in touch with the Chukchi toward the middle of the seventeenth century as their expansion reached the extreme eastern part of Siberia. In 1646, shortly after the Kolyma River was discovered, Russian hunters sailed out into the Arctic Sea and followed the coast to the east. Here they met some Chukchi with whom they traded, in that they left their goods on the beach and withdrew, whereupon the Chukchi came, took the goods, and left furs and walrus tusks.

*See Reading List.

N. A. E. Nordenskiöld (1832-1901), geologist, chemist, and baron (in his native Sweden) was one of the most far-seeing of Arctic explorers. He was early convinced that the Northeast Passage from the Atlantic to the Pacific north of Europe and Asia had great potential value for Russia and other northern nations. He impressed the King (of Sweden and Norway) and Baron Oscar Dickson, and also a successful Russian businessman, A. Sibiriakov, and obtained generous support. He studied reports of ice conditions encountered by previous travelers, and himself gained experience by an attempt, unsuccessful, to cross the Greenland icecap. He also conducted two reconnaissance cruises in the Kara sea. He concluded that the best chance of finding open water was to stay close

Among the Tundra People

In the following years the Russians continued their travels along the coast, partly from the mouth of the Kolyma and partly from Anadyrsk near the site of the present town of Markovo. They repeatedly met with Chukchi, but these meetings were not always peaceful, and the Chukchi soon became known as an independent, wild, warlike, and cruel tribe. The Russians made one raid after another to subdue them, but all efforts failed, not so much because of the armed resistance of the natives as because of the inhospitable nature of the country.

During these raids the Chukchi were often defeated, but they were never subdued, and the Russians never succeeded in making them trade regularly and pay taxes. In 1770 the Russians abandoned the attempted conquest and withdrew from Anadyrsk, where for 136 years a force of 600 men had been kept at a cost of millions of rubles. About ten years later a sort of peace was made, and in 1817 a trade agreement was entered into with Treskin, Governor of East Siberia; this agreement has been faithfully kept to the satisfaction of both sides. The Chukchi still refused to pay any taxes, but regular trading was established, and Russians or

to the mainland coast. Events showed that he was right, but he also had luck.

In the steamship *Vega*, modified and outfitted according to his specifications, he left Tromsø, Norway, June 21, 1878 with two cargo ships bound for the Yenisei and one bound for the Lena. He had no trouble in the Taimyr Strait (Proliv Vil'kitskovo on the map) which over the years has usually been blocked with ice. He encountered Chukchi east of Cape Shelag'skiy as Sverdrup noted. On September 29 progress was blocked by ice near the small village called Pitlekai, a few miles east of Kolyuchin Bay within two hundred kilometers of Bering Strait. The ship was beset until July 18, 1879, when all on board felt her move slightly. In a few hours they were underway bucking the ice. Two days later they passed Cape Dezhnev.

Nordenskiöld brought back good charts of long reaches of coastline, but detailed soundings, very important on the Siberian shelf, had to wait for the Northern Sea Route Explorations, 1910-1915. His greatest achievement, like Nansen's, was the demonstration that with scrupulous attention to the experience of predecessors, and detailed preparation for meeting all possible exigencies, a bold expedition could be completed without loss of life.

The Chukchi and Their Country

other strangers could travel safely through their country and along the fairly well populated coast.

According to the Chukchi's own traditions, as told me by Ankjem, the oldest of my Chukchi friends, their people have always lived where they do now. Part of them have always had big herds of reindeer, but long, long ago they did not migrate to the woods in the south each winter, but stayed the year around on the barren tundra. Once, when they had gone far north in their boats, they had sighted an island (perhaps Wrangel Island), where they saw flocks of seagulls, walrus, and seal, but they dared not land. They were too far from their tents, and hurried home. On another occasion, some Chukchi went north across the ice fields with their reindeer and did not return. What happened to them no one knows; some say their descendants now live "on the other side of the Sea," some say they are dead.

To the south of the Chukchi live the Lamut, or, as the Chukchi call them, "Karamkits"; that is, "the neighbors who have reindeer." With these people they had always been at peace, but they had often fought their neighbors to the southeast, the "Liotanits," and had taken their reindeer. In those days the Chukchi had no iron or other metal. Their weapons were long, powerful bows, arrows with heads of bone, spears with points of walrus tusks, and knives of hard stone. Their cooking pots were made from "moist dirt," which they mixed with straw and blood and baked in the fire, but now the art of making pottery is forgotten. When the Chukchi long, long ago came to a peaceful agreement with the Russians, they got plenty of iron and metal — knives and spears of steel, cooking pots of copper — and, later on, rifles and munitions.

The old men complained that while formerly the Chukchi were daring and strong, they are now weak and soft: "Youth isn't what it used to be!" They have, however, gradually expanded their territory. Long ago they took

Among the Tundra People

possession of the woods to the south, and more recently, a few generations ago, many of them moved across to the western side of the Kolyma River where previously no Chukchi lived.

For a long time I tried in vain to find out if there existed any tales about the *Vega* expedition, which had spent the winter of 1878/79 on the coast of the Chukotsk Peninsula not far from Bering Strait. Finally I learned that Ankjem, who claimed to be the next oldest of all Chukchi, and who had been one of the first to come on board *Maud*, had visited *Vega* when he was a young man. He told me that he had often traveled with dog teams along the coast, carrying trading goods from Bering Strait to Nizhnekolymsk. On one of those trips he and two others had visited a big ship that was ice-bound off the village of Pitlekai.* There were many men on board, and among them one who spoke the Chukchi language well and who asked Ankjem to take some letters to Nizhnekolymsk. When Ankjem promised to do so, he was given two bottles of brandy — “Imagine two bottles of firewater without having to pay for them!” he repeated. The men on the ship did not trade with the Chukchi, but anyone who asked for tobacco would get a little. They had bottles and bottles of brandy, but they drank little, only a small glass while eating and another one afterwards, said old Ankjem.

The magnetic observatory described by Nordenskiöld had been noticed by Ankjem, who told that on shore the men had built a house of ice supported by driftwood and secured by ropes, and that in the house they had field glasses into which they were looking. He had also seen one man skating; close by the ship the snow had been swept off the ice, which was “frozen as on a pond,” and there a man had been running around with long, narrow pieces of iron

*A few miles east of Kolyuchin Bay.

The Chukchi and Their Country

tied to his shoes, “fast as a rabbit and quick in the turn as a bird.”

But then Ankjem’s face changed and expressed deep horror. When the strangers had left, it was told that they had stolen the body of a dead Chukchi, which had been laid out on the tundra in the traditional manner. “Were there evil spirits on board?” Ankjem asked. I thought it wisest to deny all knowledge of this incident, although in fact Nordenskiöld tells that Dr. Almquist had brought the head of a Chukchi on board, adding piously: “The Chukchi never became aware of this theft, but probably blamed the wolves for the fact that the body laid out in the fall lost its head during the winter.”

The Chukchi have been visited by travelers, but, according to their own account, no stranger had ever spent the winter with those that live inland. This seemed true, judging from the great attention paid me. I was the topic of talk among the neighbors, and during the winter there was a steady stream of visitors from far away to see this person who refused to buy fine fur but was willing to pay good tobacco for an old sled.

The Chukchi told that the only person who had ever traveled through the woods in winter was an old “American,” who, twelve to fourteen years earlier, traveled from the Kolyma to Bering Strait with reindeer, but he was ill, kept to himself, and could not eat reindeer meat. Later, when I visited Panteleikha to be present at the yearly market, I was told by a trader, George Kibisov,* who during the winter of 1907/08 had traveled from Kolyma to Anadyr’ through the forests and over the mountains.

Ethnographically, the Chukchi belong to a group called the old Siberian tribes, who appear to be more related to

*George Kibisov is not remembered; Captain Kalinnikov wrote (in Russian) an account of his trip.

Among the Tundra People

the Indians in northwestern America than to the other natives of Siberia.* Most of them are below our average height, but they are well built and slender. The hair is raven-black and coarse, and the men wear it either long or close-cropped with short bangs in front. If worn long, the hair is parted and arranged in two braids that hang down the back or are tied together below the neck. The women never cut their hair short. They braid it like the men and wear long bangs that usually are combed forward and cover the high black eyebrows. Scissors are never used for trimming; the hair is cut with a knife. The eyes are large and clear and very dark, almost black, and are not at all slanting. Most of the older people, however, suffer from poor, running, and inflamed eyes, probably as a result of repeated snowblindness. Every spring their eyes are exposed to the merciless glare from a brilliant sun and a snow-covered barren land. Their eyes are remarkably strong, but since they know of no way to protect them, mild cases of snowblindness are common every spring.

The shape of the nose varies greatly, from long, narrow, straight, or Roman, to broad and short. As a rule, however, it is flat at the root and fairly small, especially in the women. The cheekbones are slightly high, and the mouth is large, usually with thick lips. As far as the features are concerned, some might nearly be taken for white men, others look more like Indians. All have excellent teeth. Many older people have lost their teeth, but when asked if their teeth had ever hurt they would laugh. I did not come across one single person who knew what toothache was.

The men have not much in the way of whiskers. A little down shows on the upper lip when they are past twenty and have a wife and a couple of children, and after thirty a few long hairs appear on the chin. Only the exceptional man has a real beard on chin and cheeks. In winter they cut their

*See reading list, item 7.

The Chukchi and Their Country

sparse whiskers short to prevent rime and frost from covering the face, but they let them grow in the summer. Their skin is only slightly brown and does not differ greatly from the white man's, but in spring and summer face and neck are deeply tanned from exposure to sun and wind.

The Chukchi who visited us on board *Maud* made a good impression; they were cheerful, smiling, and surprisingly clean. Among them was a Lamut named Gregory. He appeared to be far more intelligent than the others, and Roald Amundsen therefore turned to him and asked if he would take me along when he left for the south. Gregory did not hesitate for a moment. I could come along and I should live on reindeer tongue and reindeer marrow. I learned later on that Gregory had talked out of turn because his Chukchi wife had the final word, and she knew exactly what she wanted. In this case she agreed with her husband because she realized the advantage of having a "rich Russian" stay with them. The glum prospects had pointed toward a winter without tea and tobacco, but all worries would be over with someone from *Maud* among them, since he would be sure to keep her and her friends supplied with these indispensable luxuries. However, she had made only one very sensible objection: it wasn't safe to take only one of us along, because if anything should happen to him, if he should have an accident or should take ill and die, Gregory would be held responsible. Two of us ought to come. When Gregory the next day explained this proposition, we assured him that none of us was ever ill — and somewhat to our surprise our statement was accepted.

Many months later I learned that we had gotten away with our bold assertion because none of the Chukchi who visited *Maud* had caught cold, as they usually did on visits to the Russian settlements on the Kolyma River. When we arrived at Ayon, we came from the north; we had been away from civilization for over a year and were free from

Among the Tundra People

colds because the germs evidently do not survive an Arctic winter. The Chukchi could come on board as much as they liked, smoke our tobacco, drink our tea, and eat our food, without a single one of them getting as much as a slightly sore throat. Therefore, Gregory and his wife believed us when we told them that we never were ill, and they were willing to take me along alone, as some sort of a "paying house guest." Actually no payment was agreed upon; Gregory took Amundsen's word that he would be amply rewarded next spring.

Thus, the trip was decided upon. My outfit comprised astronomical, magnetic, and meteorological instruments, photographic equipment, a small tent, sleeping bag, tobacco, tea, flour, and a few personal belongings. On October 8, the Chukchi were to break camp; and on the previous evening I moved to the tents to adjust myself to my new surroundings.

My host Gregory was, as mentioned, not a Chukchi but a Lamut, who had joined the Chukchi, lived with them for many years and adopted their clothing and manner of living. He was between thirty-five and forty years old, small and slender like all the Lamut I met. With his forehead wrinkled lengthwise and crosswise, and his prominent cheekbones and inconspicuous nose, he was far from being handsome, but his face was most expressive. On board *Maud* we had often been amused at the terrible faces he made, when, for instance, he explained that there were many Russians in the Kolyma valley. Later on I learned that making faces was a form of the superlative in the Chukchi language. For example, when something was said to have happened "a short while ago," a Chukchi would say it happened "dalenjep" in an ordinary voice and with a natural face, but if the occurrence took place a very long time ago, he would say, "da-a-a-lenjep," with an "a" far down in his throat, and with an expression as if he were swallowing some horrible

The Chukchi and Their Country

medicine. When speaking about many people, big mountains, or great storms, the voice and the mimicry served to stress the number, size, or strength. Gregory was a master at varying voice and facial contortion.

He had previously been married to a Lamut woman by whom he had had five children: one grown son, one half grown, and three little girls. When the smallest girl was only a few months old, his wife had died and he had married a Chukchi widow, Kaankalj. Gregory moved to her tent, and therefore I was to spend the winter under her roof, not under Gregory's.

Kaankalj was between forty and forty-five years old, small and lively, with a round face and high brows over clear, brown eyes. She was somewhat faded and wrinkled, but wide-awake and talkative, and I can thank her for a great deal of the information I gained. She told me about the custom of killing old people, she described the primitive treatment of the dead bodies, and she explained many of the daily habits.

From her previous marriage she had two daughters. The older one, Na-anj, was married and lived in Kaankalj's tent with her husband, Oomje, and their one-year-old son. Kaankalj's younger daughter, Gemangaut, and Gregory's two smallest girls also belonged to the somewhat complicated household. Gregory's own tent stood next to Kaankalj's, and here lived Gregory's three oldest children and a Chukchi woman who kept house and sewed for them. She was married, but as her husband had two wives, he could spare the one — and when I saw the two wives together, I knew exactly which one he could spare.

When I reached the tents the afternoon I left *Maud*, there was a great deal of confusion everywhere. The big summer tent with its huge wooden framework was being taken down, sleds were being loaded and lashed, while reindeer skins, clothing, tent props, household goods, tools, and

PLACE NAMES

Sverdrup's Map 2

Ajon
Halvöen Karti
Kap Medvesji
Kap Shelagski
Keedliljgull
Kolyma
Makju-oam
Mitre-naud-ringen
Naud-ringen
Nisnij Kolymsk
Omgvo-oam
Onde Perkangai
Orte-oam
Otto-oam (Anny)
Paakinkja
Paakinkja andanga
Perkangai
Pansileika
Poekjasse (Russeverk)
Raukjuan or Baranicha
Store Kap Baranov
Suharnoje
Tsjaun bugten
Yunde-oam

Modern Maps

Ayon Island
Kytlyk Peninsula
Cape Medvezh
Cape Shelagski

Kolyma River
Makyu River

Nizhnekolymsk

Evil Pyrkanai
Orte River
Lesser Anyui
Pogindino

Pyrkanai
Panteleikha
(Russian building)
Rauchua River
Great Cape Baranov

Chaun Bay

Among the Tundra People

reindeer harnesses lay scattered all over. As soon as the huge tent was down, the small traveling tent was put up on the same spot.

The Chukchi tent is particularly well adapted to the nomadic life on the tundra, because it is double, with a small tent inside the larger. The outside tent is big and roomy, but it would take a great deal of wood to heat such a big tent to a comfortable temperature, and the Chukchi spend only a few months of the year in the forests where wood is no problem. The greater part of the year they live on the tundra, where they find enough dwarf birch and willows for cooking, but not enough to heat a large tent. Inside the large tent they therefore place a much smaller one where they eat and sleep, and which soon gets warmed up because the big tent protects it from the wind.

The sleeping tent is in the shape of a square box without any bottom. It is sewed together from huge reindeer skins and is used with the hair turned in as long as it is cold, but with the hair turned out when the weather becomes warmer. When old and worn, the hair is cut off, and it is used as part of the covering of the outside tent. Most families have two or three sleeping tents of different sizes for use according to the temperature or the number of people to be housed. An average sleeping tent is about two meters square and a meter and a half high.

Although the sleeping tent has no bottom, it can be made entirely free from draft because the walls are so long that the lower edges lie on the ground. The ground is roughly leveled and covered by a layer of fresh branches and twigs, and these again are covered by numbers of unprepared reindeer skins so that one sits or lies down on a soft warm floor. In front are placed a couple of long sacks of reindeer skin filled with clothing and soft fur. At night these are used as pillows, and during the day when one eats or drinks tea in the outer tent, they are used as cushions.

The Chukchi and Their Country

The sleeping tent has no door or door opening; you simply lift up the front wall and crawl in or out. By the back wall stands the lamp, usually a flat wooden dish with an inlay of metal, occasionally an enameled plate. The lamp is filled with seal oil, and in front lies the wick, a row of moss or finely cut wood, which burns with a clear flame and gives a surprisingly good light. The lamp stands on a wooden bowl filled with seal oil or reindeer fat. Across the lamp lies a small wooden stick for fixing the wick when the lamp is smoking, or threatens to die — and this happens often. The wooden stick also serves another purpose. Since it is always greasy, it is easily lighted in the flame, and it is very convenient for lighting a pipe. From time to time the housewife must pour seal oil from the bowl into the lamp, and what she spills on her fingers she licks off with relish. Seal oil is a delicacy to the Chukchi, and one which I never envied them.

Inside the sleeping tent there is room for six to eight persons. No matter how cold outside, the tent warms up quickly. The lamp heats, the many people give off heat, and when food and tea are brought in steaming hot, the temperature rises to such an unbearable degree that even the Chukchi find it necessary to raise the front wall and let some fresh air in. But they don't like to let out the heat; they want to keep it for the night when the lamp is out. Then every little opening is closed up tight. With only a few people in the sleeping tent, the night can still be reasonably comfortable, but with many lying like sardines in a box, the air becomes thick and pungent. In the morning you wake up in an atmosphere saturated with steam from wet clothing and perspiring bodies, and seasoned by a sour smell of stale tobacco. When I first crept into a sleeping tent, I nearly passed out, but fortunately the nose adjusts itself rapidly to strange stenches, and after a couple of weeks I was immune to the particular Chukchi odor.

Among the Tundra People

Certain rules of cleanliness are observed in the sleeping tent. It is not permissible to spit on the floor; there is always a small tin cup for this purpose. If, as often happens, the tin cup has been mislaid, the woman kindly stretches out her hand for your use and wipes it off on the ground or on the snow in the outside tent. The night-vessel, a large wooden bowl with a short handle, is not kept in the sleeping tent but stands outside, next to a huge block of snow. It is emptied into this snow-block, which in the morning is chopped up and given to the reindeer as a treat. To the reindeer the salt content is invaluable, and among the Chukchi nothing goes to waste.

I soon gave up living entirely with the Chukchi, but slept in my sleeping bag in the outside tent. Later on, in the beginning of November, when the temperature remained below zero* and it became too cold to write and dress in the outer tent, I had my own little sleeping tent put up next to Kaankalj and Gregory's, something Gregory long before had offered me. However, during the winter when traveling or visiting, I spent many a night among the Chukchi.

Although I gave up living entirely like a Chukchi, I dressed exactly like one, that is, in reindeer skin inside and out and from head to toe. The skins are made soft by scraping with a skin-scraper — a small, round piece of iron, about five centimeters in diameter, which is fastened in the middle of a slightly rounded piece of wood fifty centimeters long. When finished, the skins are dyed red on the inside by rubbing with the bark of a small bush that has been soaked in urine. The skins of four-month-old reindeer are mostly used, except that well-to-do people have underwear made of the skins of newly born calves. This underwear is extremely pleasant, because the skin itself is thin and pliable as paper, and the fur is soft as silk.

*All temperatures are in Celsius degrees.

The Chukchi and Their Country

The clothing is simple and becoming. The men wear two coats of reindeer skins, one short-haired with the hair turned in, and one heavier with the hair turned out. The coat reaches nearly to the knees and is held together around the waist by a belt. The lower part is edged with dogskin or the fur of wolverine. The neck is so wide that the top of the chest is exposed. The sleeves are long and tight at the wrist, and they are so wide that the arms can easily be drawn in, and in cold weather the hands can be warmed on the body. When the weather gets warmer, the very heavy outer coat is exchanged for an old one with the hair almost worn off, and in summer this is discarded. The undercoat has two pockets, a style which probably is of recent date, since the Chukchi use a Russian word for pocket, "karman."

The trousers are long. In summer only one tight-fitting pair is worn with the hair turned in; these are often made from old tent covering and are almost hairless. If it is only moderately cold, a pair of outer trousers is added, made from the reindeer's leg skins, which are very durable and have the advantage that snow does not stick to them. In the middle of winter, however, these trousers are too cold and are replaced by a pair made of heavy-haired reindeer skin.

The footwear is practical and warm. The stockings are made of reindeer skin, heavy or light according to the temperature, and the high shoes are made from fur of the reindeer legs. The shoes are sewed with a vertical seam around the sole, and are large enough to hold a thick layer of dried grass in the bottom. The soles are made of scraped and chewed sealskin with the hairy side in, or, in very cold weather, of the long stiff-haired leather strips near the reindeer hoofs, which are sewn together and worn with the hair out. In summer water-tight sealskin boots are worn. These are laced tightly above the ankles and the trousers are pulled outside and also laced over the ankles. On special occasions,

Among the Tundra People

such as at races or ceremonials, some of the Chukchi wear short knee pants and high skin boots.

Mittens are made from the reindeer leg skin and are worn with the hair out; they are warm and solid. In contrast to the Eskimos, who cover their heads with a hood sewed onto the parka, the Chukchi use caps because they then can move their head more easily, they say. This difference in custom shows, however, that the Chukchi spend their winters in a less windy climate than the Eskimos. Many different varieties of caps are in use. In spring they wear caps made from thin reindeer calf skin, and fitted closely to the head, or only a ring of skin with earmuffs. The huge winter cap is double, with the fur turned both inside and out. In front this cap has a wide edge of dogskin which frames the face and gives splendid protection against snow and wind. In summer they wear no caps.

In the winter the neck is protected by a scarf or a boa of dogskin or squirrel tails. An old man in addition protects his chest by a kind of bib made from several thicknesses of reindeer or dog fur. In snowy weather the Chukchi often pull a smock of calico over their furs in order not to get them full of snow. They love bright colors. A group of Chukchi wearing these "snow-covers" look very gay — blue, yellow, red, white, and flowered coats. A few wear outer coats of thin chamois skin which they have bought from the Lamut.

The women's clothing is entirely different. It is some kind of a "combination" — a wide upper part which extends into wide "bloomers." A combination may have certain advantages, but in a really cold climate these would seem to be more than canceled by the discomforts experienced when practically the whole body has to be exposed whenever nature must take its course. The opening at the neck is so large that one or both arms may easily be pulled out through it. It is edged with dog fur and can be laced up in

The Chukchi and Their Country

cold weather. The sleeves are wide, and widest at the fur-edged cuff. They are long enough to reach over and protect the hands when the women work in the cold without mittens.

The footwear consists of fur stockings with huge bulgy legs and high boots made from leg skins of the reindeer. The "bloomers" are pulled outside and laced tight below the knee. Usually the women also wear two suits, one with the hairy side turned in and one with the hairy side turned out. In winter the latter is huge and warm, in summer almost free from hair. Caps and mittens, which they seldom wear, look like the men's. For certain occasions and in extremely cold weather the women use an outer coat of very thin skins with the hair turned in. This coat is often trimmed with tassels, bits of leather, and strips of leather embroideries.

The children are dressed like the grown-ups as soon as they can walk, but as babies they are put in a fur bag with four extra bags for arms and legs and with a big flap between the legs. This flap is filled with dry moss, which is changed every time the baby cries. A young Chukchi wife who is expecting a baby does not collect strange baby things and fine dresses with lace on them; she collects a big sack full of moss, picks all the twigs and stones out of it, and dries it well. If she has been industrious, she has all the baby things she needs, and diaper-washing is no problem.

When a child is to be taken for an airing, the bag with the four smaller bags is put into a larger one, which is rarely carried but is dragged along the ground. The baby is propped up against a tree and is happy and comfortable even if the temperature goes far below freezing.

Neither men nor women wear much trimming on their clothing. The men occasionally have colored fur tassels hanging down their backs or from elbows or knees. Once in a while the cuffs on the lower edge of the trousers are trimmed with fur embroideries, which are made by sewing

Among the Tundra People

bits of different colored furs together to form geometric patterns. In spite of the lack of ornaments, the Chukchi attain very tasteful effects by using white or black-and-white-spotted reindeer skin. For instance, if they have black fur with white spots, they will cut the fur to place the spots symmetrically. Every well-to-do man has a pair of dress-up pants made from white leg fur and an elegant coat of pure white or white-spotted reindeer skin.

It takes quite a few reindeer skins to make the different pieces of clothing; a complete set of under- and over-clothing requires the skins of five to six deer. Since most Chukchi need a new set each year, many reindeer calves must be killed in the fall to give the necessary furs for a rather large family.

The Chukchi know practically no jewelry except glass beads. Most women and many men wear beads around their necks and wrists, and many wear earrings of glass beads. Girls are girls and like to wear five or six strings around their necks. Everyone wears one or more thin leather straps around the neck, arm, or wrist. These are "health-straps" and protect one against disease. Almost every baby wears an amulet around the neck, a small, crudely carved figure which is called the little one's wife or husband, and one may also meet grown-ups with such a wooden figure on the chest.

I did not observe much artistic sense among the Reindeer Chukchi. Ornamentation on useful articles or carvings in wood or ivory, such as are found so abundantly among the Eskimos, are lacking. Even fur or bead embroideries are rare, and those that are worn are usually not made by the Chukchi themselves but by their neighbors, the Lamut.

In contrast to the women of the coastal Chukchi, the women of the Reindeer Chukchi are not extensively tattooed, many not at all. Some have two parallel stripes along the nose that sometimes continue up over the forehead

The Chukchi and Their Country

where they diverge; others have parallel or slightly diverging stripes from the lower lip down over the chin. The tattooing is done little by little over a period of years and is not compulsory — at least, many women told me that they did not want to be tattooed because it hurt too much.

The Chukchi, especially the young ones, have a remarkable resistance to cold weather. I have seen small girls eight or nine years old stand quietly for an hour or more, bare headed and with neck and the upper part of the chest and back exposed, although the temperature was at zero and a penetrating wind was blowing. When the reindeer are to be caught, the young boys run until they are soaked with perspiration and their clothing sticks to their bodies, and then they sit down on their sleighs and drive for hours without freezing. They arrive at the tent with boots frozen stiff, but without a single frozen toe. Among all those whom I met, I heard of only one person who had lost a toe from freezing. Once, one of Gregory's little girls arrived at camp with white fingers, but then she had driven for four or five hours without mittens in a biting wind at about twenty-two degrees below zero. It was, however, only a superficial frost-bite. I dressed like the Chukchi and was very comfortable, if I took care to keep my neck well covered and did not work until wet with perspiration.

The language caused me many difficulties, since I did not know one word when I joined the Chukchi. Even if a complete text-book of the Chukchi language had been available when we left Norway, none of us would have taken one along because we never expected to meet these people. While I lived with them, I had to learn the language by ear — repeat the sounds I heard and write them down as well as I could. When one is learning a language in this manner, one is up against a great many unexpected difficulties. One might think it easy to learn the names for concrete objects, but the queerest misunderstandings can arise when

Among the Tundra People

one cannot even ask, "What do you call that?" but can only point.

The first lasso I saw lying on a sled was old and worn. I pointed to it, and the owner, with a half-scornful glance at it, said, "panin." I repeated the word and wrote it down, thinking that now I knew the word for lasso. To make sure, I tried my knowledge the next time I saw a man with a lasso. I went over to him, pointed to the lasso and said, "panin." The effect was quite unexpected; the man looked hurt. Another trial was even more unfortunate, for the owner became definitely insulted. It took me some time to solve this puzzle, but the answer was that the word for lasso is "kja-at," and "panin" means "old." The first time I pointed to the lasso the owner told me it was "an old one," and then I had gone around and called brand new lassos "old ones."

Just the same, during the first weeks I picked up quite a few words, but it took me more than three months before I really began to learn the language and understand the sentence construction. I did not know, for instance, whether the Chukchi used prepositions or how they expressed themselves under circumstances where we use them. I did not find this out until I knew the language well enough to understand sentences and could guess from the situations what was being said. I had often noticed that when we were sitting in the sleeping tent and someone entered the outer tent, one of those inside would call out, "Ma-ingen?" This must mean, "Who is it?" The answer was a name, and the next question was usually, "Mein-kaa jeti?" ("Where do you come from?"). Time and time again I heard the same answer, "Nedel-gulj-aipe." One evening it dawned upon me that "Nedel-gulj" means reindeer herd, consequently that "Nedel-gulj-aipe" means "from the reindeer herd," and the ending "aipe" must mean "from." The Chukchi evidently did not use prepositions, but suffixes, and as soon as I

The Chukchi and Their Country

grasped this I was able to pick out a great many. In a similar manner I managed to learn other traits of their grammar, but this is so complicated that in eight months I did not progress further than to be able to make myself well understood by means of a most ungrammatical speech, and to understand most of what a single person said to me. But I was not able to follow a conversation between others and had to be happy if I could merely make out what they were talking about.

The Chukchi language is, of course, poor in words when compared with a modern language, but it has a confusing number of words in the field of interest to the Chukchi. For reindeer only there are more than twenty different words. Different words are used for a male reindeer that is one, two, three, or four years old, and, similarly, different words for the doe. A special word is used for reindeer that pull sleds, special words for one that pulls on the right or the left side of a light sleigh, and so on. In some of these many words I could recognize the root "korang," the word for reindeer, but most of them had nothing to do with "korang."

The intonation is very important in their language. "I don't know" is simply "kaa," and this word may be varied from a friendly, questioning "kaa" ("I am sorry I can't answer") to an angry throat sound: "Get the hell out of here."

Interjections are used a great deal. The prettiest of these is the one a Chukchi would use when his wife is wearing for the first time a new suit of black-and-white spotted fur. Then he would stand in front of her, look her over carefully from head to toe and say, "hra-a," with an "r" way down in his throat. This means, "My dear, how perfectly charming."

The Chukchi language has one characteristic trait that troubled me for a long time: it is pronounced differently by men and women. When a man uses a hard consonant like "r" or "k" or "t," the woman substitutes a soft, whistling

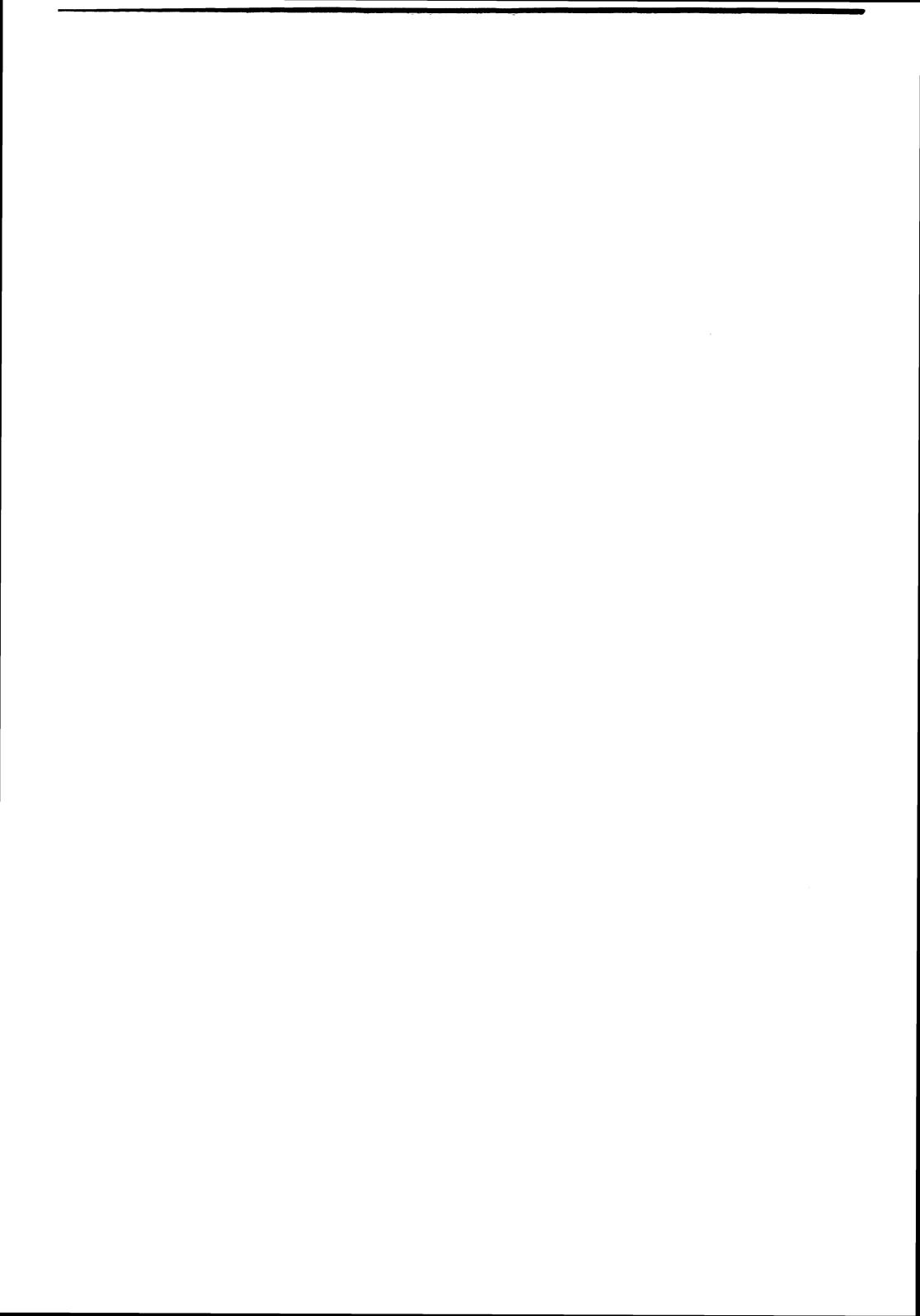
Among the Tundra People

“z.” Walrus is called “rer-ka,” but a woman calls it “zez-za”; reindeer sinew is called “ret-tit,” but a woman says “zez-ziz”; a man’s coat is called “ira,” but the woman says “iza.” In a great many words, therefore, only the vowels are the same, and, added to that, the continual use of the “z” sound makes it difficult for an inexperienced ear to understand what the women say. The difference in the pronunciation is so striking that traders who have spent years on the coast insist that men and women speak two different languages.

Of course, a woman can pronounce the language like a man, and she does so if she is quoting a man verbatim, but otherwise it is not considered good manners for her to use the men’s pronunciation. It was amusing to watch little boys: while quite small they used their mother’s pronunciation, but when they grew a little bigger and began to play with other, older boys, they tried to put away the baby language and talk like real he-men. A few times when I was unfortunate enough to repeat among men some words I had learned from a woman, I made myself the laughing stock because I “talked like a woman.”



Sverdrup and his new friends on Ayan Island, October 18, 1919: two young women, the one on the right holding a baby, all in their very best furs. The summer tent shown is more ramshackle than the winter tent.



TRAVELING WITH REINDEER

On October 8 we broke camp to start for the woods far away, but we reached only the southwest point of Ayon Island, for the ice was still unsafe and it was not advisable to cross the narrow sound that separates Ayon from the mainland. We finally left Ayon on Monday, October 13, and two months later, on December 13, we reached the place where we should spend the winter. We did not move fast. We traveled perhaps two or three days in succession, then stayed in camp a day or two, continued another day, stopped again for several days, and so on. One day the reindeer might be too tired and we all had to rest a day, the next day it might be blowing too hard or be too cold to take down the tents, or our reindeer had become mixed up with those of some neighbors and the herds had to be separated, or we might have to stay to slaughter some reindeer for food. During the two months we were on the move only twenty-nine days. The entire distance covered was about two hundred and fifty kilometers, and the average distance of a day's march was far from imposing – about eight kilometers! The impatient man from a hurry-up civilization has to realize that to the nomads moving is part of their life.

Among the Tundra People

It stands to reason that a Chukchi reindeer caravan does not advance speedily since every day a big outfit must be put in motion. In the early morning, long before dawn, one of the young girls crawls out of the sleeping tent to make the fire and prepare the morning tea. This is served sometimes at four o'clock, sometimes at nine, all depending upon how early the man of the household awakes — or has been awakened by the little tots. Breakfast is eaten in the sleeping tent before dressing, and it is the least appetizing of the Chukchi meals. The first dish is cold boiled meat left over from the previous evening, and since the meat has been kept overnight in the sleeping tent on an open platter, it is full of reindeer hair and has taken on a definite taste of the strong and odorous atmosphere in which it has been kept. I wish, however, to put in a word in favor of the reindeer hairs. They are so brittle that one hardly notices them in the food.

After the meat comes steaming hot tea. You drink until you drip with perspiration and then, to cool off, you are given frozen, raw meat which has been cut in very thin slices or pulverized by a stone hammer. You eat with your fingers. If there is enough seal oil, the Chukchi dip the frozen meat in the oil, and smack their lips. I found the frozen raw meat tasty, but I refused to flavor it with seal oil.

Before breakfast is over, the young people take down the large outer tent, beat snow and frost off the covering, fold it up and lash it onto a sled. When the last old person has crawled out of the sleeping tent, this is taken down and beaten until all the frost on the inside has been loosened and can be shaken off. In cold weather the inside walls and the roof become covered with rime because the air is always saturated with moisture, which condenses to rime and frost at the roots of the reindeer hair. If the frost is not beaten out, the tent gets moist when heated the next evening, the hair falls out, the tent spoils and becomes cold and

Traveling with Reindeer

uncomfortable. Removing the frost from a big sleeping tent is a slow and hard job which takes one or two women more than an hour. If it is not extremely cold, they stand with one arm completely bared and swing their curved wooden bats without stopping until all the frost is beaten loose. Finally the tent is rolled together and, when put up again in the evening, it is dry and warms up fast. But the man with a lazy wife has to sleep in a moist and cold tent. Instead of saying, "He has a lazy wife," the Chukchi say, "His sleeping tent is always moist."

While the beating goes on, furs, clothing, meat, dishes, tools, and pots have been packed and loaded. The Chukchi have very little sense of order, and many a precious article is lost, especially if it has been snowing during the night. Whatever tool they use they drop just where they happen to be when the task is done, and in the morning you hear, "Where is my knife?", "Where is that small kettle?" or "What has happened to my ax?"

When the packing is finished, the sleds are hauled forward, placed nearly on end, and arranged in a half-circle. This enclosure serves as a corral into which the reindeer used for pulling the sleds are driven. If three or four families move together, they have from fifty to eighty sleds, and this number is greater than needed for the corral, so the rest are placed in rows of eight to ten sleds.

The work sleds of the Chukchi are heavy and clumsy, but strong. The runners are held together by four arcs of naturally curved wood or of reindeer horn. The top structure consists of four long poles and four crosspieces. The two outside poles reach to the point of the turned-up runners. All pieces are lashed together by thongs of reindeer skin or sealskin.

When at last all sleds are ready, the reindeer are caught and driven toward the corral of sleds. The reindeer that are not to be used for dragging the sleds are coaxed out of the

Among the Tundra People

flock by whistling through the teeth and calling, "Hakk, hakk, koos, koos, koos!" The draft deer are easily recognized, for their horns are all cut off differently. Some have only the right, others only the left horn, others one and a half horns, and so forth. If a draft deer tries to get out, it is scared back with loud yells of "Hau, hau!", and if this doesn't help, a lasso swishes through the air and seldom misses its mark.

The Chukchi lassos are braided from strips of reindeer skin or sealskin. At the far end is a running ring made of reindeer horn or occasionally of the horn of the mountain sheep. The piece near the ring is often made from the hide of large seals. The length is from twenty to thirty meters, and most Chukchi use their lassos with great accuracy at a distance up to twenty meters. They have practiced throwing a lasso ever since they learned to walk, and out of a herd of reindeer running at full speed they can pick exactly the one they want.

A reindeer that tries to escape is not treated kindly. It is thrown down and kicked in the loins and neck, and before it rises the lasso is fastened around its hind legs. As long as the lasso is held tight, the deer cannot get loose, but when the lasso is slackened it can kick itself free. Now it is driven back to the herd, but every once in a while the lasso is given a hard jerk, and the reindeer kicks wildly with its hind legs. The more often a deer has tried to escape, the more severely is it treated. As a whole, the Chukchi are not softhearted when dealing with their reindeer. They do not exactly mistreat them, but an animal that does not behave is beaten until it obeys, and if it is of importance to travel fast, the reindeer are driven ahead by any and every means until they drop. Their training is very simple. The deer to be broken in is caught and is tied with a strap around the neck to a tree or a very heavy sled in such a manner that it cannot hurt itself no matter how much it acts up. It is left

Traveling with Reindeer

like this for a day and a night, and is then put before a sled that it can kick around without too great risk. After a few days the reindeer behaves fairly well and does not try to get away when separated from the rest of the herd.

When the draft reindeer have been separated, they are driven into the temporary corral. A couple of sleds are drawn across the opening of the half-circle, or a living fence is formed by old people and children who wave their arms and yell at the top of their voices every time a reindeer tries to break out. The young people go into the corral, harness the deer and lead them to the sleds. This is a risky business because there are many unruly reindeer and it takes skill to avoid their horns. Sore arms and scratches in the face are all in the day's work, and many a Chukchi has lost an eye. Toward noon the last reindeer is finally hitched to its sled, and the caravan is ready to start.

The sleds are arranged in rows of eight to ten sleds. Each reindeer is tied to the sled in front by a strap around its neck and pulls its own sled by a wide strap of reindeer skin or sealskin which comes around the neck and between the front legs. The pulling-strap on the sled is made from walrus hide and is placed such that the reindeer does not go directly in front of its sled, but in front and to the left. Thus, the row of reindeer move on the left side of the row of sleds. In hilly country this arrangement has the advantage that, when a sled slides down a slope, it hits the sled in front and does not hurt the reindeer. A reindeer usually pulls a load of fifty to seventy kilograms, including the weight of the sled. At the head of a row, a young woman or a young girl drives a sled with two reindeer. Directly behind her follows the sled for the smallest children, pulled by an old, reliable buck. This sled carries some sort of tent, a framework of wood covered with reindeer skins, where the little ones can be warm and safe. Next comes a sled with furs and clothing, then a sled for the cooking utensils, followed by sleds with

Among the Tundra People

tent covering and sleeping tents, and at last by a small sled with tent poles which drag along the ground.

In one respect the Chukchi sense of order is highly developed. They always leave their campsite neat and tidy. Bits of wood, bones, and pieces of skin that are lying around after camp is broken are carefully picked up and burned, and if many reindeer have been slaughtered, the antlers are all gathered up and placed in a row in front of the campsite. These and the charred fireplace are all the evidence left that ten to twenty people have lived there for several days.

When the caravan starts moving, the young boys go to the reindeer herd to drive it ahead, while the men stay behind to see that everything gets off in order. They have a last smoke before following on their light sleds drawn by two reindeer. Some go to visit the neighbors, others drive past the long rows of sleds to choose a new camping place where there is good grazing for the reindeer.

The long train snails along for two or three hours, sometimes for all of six hours. It moves slowly. Uphill the reindeer must stop to rest every few moments, or a sled is overturned, or a reindeer drops and must be hitched to a light sled. More serious mishaps seldom occur; only once did I see that the last reindeer had been choked to death because it had gotten the harness around the neck and had been dragged along the ground.

As soon as the new campsite has been reached, the reindeer are turned loose, and the women and girls get busy raising the tents and making tea. It seems important to get a cup of tea as quickly as possible, and with this you are served cold boiled or frozen raw meat. Not until two to four hours after reaching the campground is the big pot with meat for the day's main meal ready and the tents in order. Then you beat the snow off your clothing with a curved reindeer horn and crawl into the sleeping tent, from

which every snow crystal has been carefully removed. In the sleeping tent it soon gets so warm that the men take off their coats, and the women put both arms through the opening at the neck and let the top part of their dress fall down to their waists. Everybody sits around with the upper part of the body bare, but not until the lamp has been put out do you undress completely and crawl in under the prepared reindeer skins used for covers, or under your own clothes if you are a guest.

Next day the procedure is the same, unless the weather or other causes make you stay on. In any case, the sleeping tents must be taken down and beaten free from frost. On a day of rest the sound from beating forms the bass notes, and the dogs and children provide the treble notes of the camp music.

On our trip south, one evening we stopped around dusk. Kaankalj had started her fire immediately, and the water in her teakettle was boiling. As I was sitting by the fire, one of the neighboring women came over to me and asked for matches to start her fire. I answered that she had better take a hot coal from Kaankalj's fire since we needed to save our matches. She only shook her head and again asked for matches. I insisted, but she mumbled something I did not understand, and left. Finally, when I saw she had no other means of starting her fire, I gave her some matches. A few days later the same story was repeated, but this time the woman became angry and scolded me when I suggested taking embers from our fire.

When I asked Kaankalj why the woman would not borrow fire, her first answer was, "We Chukchi are like that," a reply with which I often had to be satisfied when I asked direct questions. Later she explained slowly and carefully that the Chukchi fire belongs to the family, and that after a pot or a kettle has been hung over it, no outsider must take a hot coal from it to start a fire in his own tent,

Among the Tundra People

because sickness and misfortune will strike him. At the time I had moved to Kaankalj's tent, they had decided that I should not be considered a stranger, but should be taken into the family and be given her fire. If I wished to start a fire, therefore, I might take embers from her fire, and she could also start her fire with embers from my stove, but no stranger would dare take hot coals from us.

This form of sanctity of fire seems surprising here where fire plays such an important part, where during more than nine months of the year you cannot even get a cup of water without some means of melting snow, and where in former days the making of fire was a slow and difficult process. But the Chukchi are absolutely certain that they attract disaster and illness to the home if they carry embers from a stranger's tent to their own, and they watch carefully that this never happens.

Many times I have witnessed a scene like this. As a couple of men are sitting between the tents talking, one of them wishes to light his pipe and asks a boy to fetch him a brand. After he has used it, he sticks it in the snow with the glowing end up. After a while he may glance at the live coal, and, if it occurs to him that it might by mistake be tossed back into the wrong fire, he calls out, "From whom did the boy get the brand?" When he gets his answer, he throws the brand back into the right fire.

Questions like, "Whose fire is that?" or statements like, "Over there is N. N.'s smoke," are common, even when you can see the tent as plainly as the fire or smoke. It perhaps means that the fire is just as important, or more so, than the tent.

Now the Chukchi mostly use matches, but they know two other ways of making fire. Many carry a fire steel with flint and bits of plant down, which they gather in the fall. The flint, or agate, is plentiful by the Rauchua River, and is therefore called simply "from Rauchua." Occasionally a

Chukchi was the proud owner of a magnifying glass with which he lighted his pipe on a sunny day, to the great admiration of all around him. In the Chukchi language such a glass is called "tirke-ta-ak-ork," which means "sun-tobacco-smoker."

In every tent there are several "fire-woods." In a dry, thick piece of wood sixty centimeters long, two to four parallel grooves have been carved, and in these a number of holes have been drilled. Many of these pieces of wood have a sort of round head at one end and are black with age. The stick that is used as a drill is made from the same kind of wood. To the outfit belong a drill-bow and a small piece of hard wood or a reindeer vertebra, which serves as a bearing for the upper end of the stick. When a person starts the fire, the right knee rests on the ground, the left foot is placed on the big piece of wood with the bore holes, and the stick — the end of which has been dipped in grease — is put in a bore-hole which has been half-filled with pulverized charcoal. The left hand holds the reindeer vertebra, against which the upper end of the stick runs, and the right hand moves the drill bow back and forth, slowly and evenly, thus putting the stick in rotating motion, alternating to the left and to the right. After a minute or two, the charcoal and the wood pulp formed by the rubbing begin to glow. A piece of charcoal which has been carried inside the clothing is held down to the hole, and, by careful blowing, this soon glows, and is used for starting the fire, which has been prepared with wood shavings and twigs at the bottom. I have never seen any but women make fire in this way.

Now, when matches are common, the fire-steel will perhaps disappear, but there is no danger that the drilling outfit of "fire-wood" will disappear as long as the Chukchi keep their old customs, for it plays an important part in their ceremonies. A fire made for ceremonial purposes must be made in the traditional manner.

Among the Tundra People

While the Chukchi are on the move, the young people are far from lazy. On the barren tundra, the young boys take turns watching the reindeer every second or third night, to keep them from dispersing. In the mornings they help take down the tents and lash them to the sleds, and when the draft animals are being caught, they are running back and forth. During the day, the boys must drive the herd to the next camping ground. Often they must continue on far ahead after a single strayed reindeer and do not return to the tents until late at night, long after the older people have gone to sleep. The young women and girls are busy too. They are the first up in the morning and the last to bed at night. They rest in the middle of the day when they walk or ride on the sleds at the head of the row.

The older people, however, take life easy. When a man has grown sons, these take over the work as a matter of course. When their father was young, he had to watch the herd at night, bring the reindeer to the camp in the morning, and follow them on foot during the day. Now he sleeps late, crawls out of the sleeping tent when it is ready to be taken down, strolls around to see that every little matter is attended to, and drives off when it suits him.

The young people consider it quite proper that their elders should not work hard and should be shown respect. Their treatment of old people could be taken as an example in many a civilized country. The old person is always given the best place and the best food. I have been rebuked for offering a piece of reindeer tongue to a young man sitting next to me before stretching over to his father. If tea or tobacco is scarce, the old people are given what there is, no matter whether man or woman, poor or rich. Neighbors often came to me to "borrow" tea or a handful of sugar because they had a visit by an old person whom they wanted to treat. The respect for the old persons is closely linked

Traveling with Reindeer

with the Chukchi concept of the soul, which is explained later on.

Moving day is a busy day for the Chukchi, but they never move more than four or five days in a stretch. After that they pause for one or several days to catch up on their sleep and to let the reindeer rest and feed. It is easily understood that they need fully two months to cover a distance of less than two hundred and fifty kilometers.

The first hundred and fifty kilometers took us over the monotonous peninsula, Kytlyk. Both this peninsula and the island of Ayon must once have been level ground, but now they are cut up and furrowed by creeks. There are innumerable small lakes and bogs, and in some places the creeks unite into small rivers which wind through stretches so low that the tide may be noticed as much as fifteen kilometers from the coast. Toward the coast, between the creeks, there are steep cliffs with layers of sand or clay containing bones of mammoths and other recently extinct animals.

The very surface of the land is completely free from stone. I was quite surprised when I first saw the Chukchi use their axes to smooth the ground under the tents, because usually they are very careful with their tools. But they told me that they risked nothing, because there were just no stones. On slopes where there had been landslides I have seen layers of peat or roots of other plants four meters thick. In some places I saw large roots, probably of trees that cannot thrive under the present climate.

In summer near the coast one finds a beautiful covering of grass and flowers, and only a short way from the coast willows and dwarf-birch reach above the ankles. Still farther inland, where we crossed the Rauchua River, bushes were growing. The river winds down an open valley and along the banks, and on the small islands in the stream the bushes were as tall as a man. Here, and along the smaller rivers to the south, there is wood enough, but for the first hundred

Among the Tundra People

kilometers from Ayon there is none. The Chukchi carry enough driftwood from the coast for eight or ten days, and the amount they need is not small, since they do a great deal of cooking and since their method of maintaining a fire in the open is not a very economical one.

The Rauchua River was nearly dry when we reached it. For long stretches the river bed with its rounded stones lay exposed, and in other places a little water trickled under a thick cover of ice. Beyond the river we reached the mountains — low hills with higher ridges in the background. At first the valleys are wide and open and terraced, but farther south they become narrow and sharp.

Our road took us close by the mountain Keedliljgull, a range approximately twelve hundred meters high, which we had seen from *Maud* in clear weather. In some places single stone pillars were visible to the naked eye from a great distance. As we approached the Makju-oam River, we passed mountains which would be inviting to even the most seasoned mountain climbers. One of the peaks, Evil Pyrkanai, seems fear-inspiring with its black northern wall, and it plays an important part in the Chukchi superstition. The valley of Makju-oam, however, is very wide and open, and in the flat bottom the river runs in many curves and bends.

In the mountains farther toward the north there are, according to the Chukchi, large quartz crystals, and by Chaun Bay there is soapstone. The agate-like flint which is used in tools for making fire is only found near the Rauchua River. One can hardly travel through a little-known part of Siberia without the question of gold coming up,* and I, too, asked the Chukchi if they knew the yellow metal. No one did, and no one had any gold ornaments. Tusks and bones of mammoths are found everywhere near the large rivers or along the coast where they are uncovered as erosion goes on. Small and cracked pieces are very common, but a really

*See pp. 217, 218.

Traveling with Reindeer

fine whole and well preserved mammoth tusk is rare and highly priced.

The bottom of the valley along the Makju-oam is covered by forests of Siberian larch, and here and there poplars or aspens grow. The forests reach fairly far up along the hills where the underbrush is dense. From the forest the Chukchi obtain the material they need for their innumerable sleds and tent poles, and they have no difficulty in gathering dry firewood, because many trees dry on the root. They were amazed when I told them that in my country we had to cut green trees for firewood and let it dry during the winter. In many places vast numbers of half-burned trunks were standing as evidence of widespread forest fires. I could not understand how forest fires could occur where no people live during summer, but the Chukchi explained to me that "the sun sent fire to the earth with big noises."

More important than the wood is the reindeer moss which grows in great quantities in the woods. On the tundra to the north there is very little moss, and in summer the reindeer live off the young buds and the grass. During winter, when the herds seek the forests where there is an abundance of reindeer moss, the deer grow fat, but such was not the case in the winter of 1919/20, because everywhere in the woods the snow lay more than a meter deep. Fortunately, it was fairly loose, so the grown reindeer were able to dig down to the ground, but when they were grazing only their backs could be seen. The older animals managed fairly well, although they did not get very fat, but the calves and the yearlings became so lean and weak that, when driven north in the spring, many of them could not keep up with the herd but dropped in their tracks and had to be killed. The Chukchi told me that they had seldom lost any reindeer in this manner. Usually the snow was only knee-deep, but this winter it had reached the waist.

Among the Tundra People

The winter climate in the woods of the Reindeer Chukchi is perfect, provided one can dress and live comfortably in a temperature that drops to forty degrees below zero. A high wind was a rare occurrence, and often we had weeks of quiet and cloudless weather.

Early in the winter the Chukchi praised the months of April and May, which they consider a separate season of the year. They do not belong to the winter, because, although the nights are cold, the days are so warm when the sun is bright and high in the sky that one can discard caps and mittens; nor can they be considered spring, because the melting of the snow and other signs of spring are still far away. I quite agree with the Chukchi in this respect. The nights in March were, indeed, very cold – more than usual, I was told; but to make up for that, the days were sunny and warm, and April was altogether a beautiful month. We had three wonderful weeks without a cloud in the sky. May, however, was stormy and disagreeable.

The Chukchi have a great many superstitions regarding the wind and the weather. The wind is personified as in our fairy tales. One evening I had observed the temperature, using a sling thermometer, which swishes and sings as it is being whirled quickly around. A little while later the wind started to blow, and I remarked to an old man that it was too bad that we were going to have more wind. He answered dryly, “Well, you have just been standing there calling it!”

Another day I was walking through the woods with a Chukchi, and we passed a tree with a great growth of small twigs near the top, called in our parlance “witch’s nest.” My friend told me that this was the wind’s home, and that such a tree must not be cut, because then there would be a storm.

The Chukchi believe that certain people have the power to create good weather or call a storm, and they also believe that changes in the weather may be due to certain actions.

Once I told them that we had passed many walrus, far, far west of Ayon. "Without killing any?" asked one. "We killed one," I replied. "It was late in the season and to kill many would have taken time. Ice might freeze around us, and we might never have reached Ayon." "That's right," nodded one Chukchi. "If you kill many walrus, cold weather comes; yes, indeed."

Discounting their superstitions, the Chukchi have a fairly good knowledge of the weather. They can often predict storms; they know what wind is prevailing in the different seasons, and they know that wind from the ocean brings clouds and rain or snow, while wind from inland brings clear, warm weather.

The Chukchi told me that many wild animals live in the woods or on the tundra, but I saw only a few, because wildlife disappears when the big herds of reindeer advance. The largest game is the moose, which in winter time is found as far north as the Little Anyui River. The moose is not hunted by the Chukchi but by the Lamut, who live among the Chukchi, and to the Lamut it is very important. The Lamut are also the only hunters of the wild reindeer, the caribou, which is found scattered all over the districts to the south of Raukjuan. The hunting takes place in the spring, after the Chukchi have left the forests. If the snow is deep, the Lamut, who use snowshoes, can overtake both moose and reindeer.

Mountain sheep are very numerous. Every year the Chukchi kill a great many (one man boasted to me that he had killed twenty in the fall of 1918) – mainly to get hold of the beautifully curved horns, which at the base may measure ten centimeters across. From these horns the Chukchi carve various articles which are attached to the reins used for driving the reindeer. They often hunt the mountain sheep with dogs, which drive the sheep into places where the hunter can get within range. In the fall the sheep

Among the Tundra People

are very fat and their meat delicious, but in spring they are skinny and then the Chukchi do not eat the meat. The skins are of no value to traders, but the Chukchi make use of them.

Large white rabbits are more than plentiful, since they are hunted by neither Lamut nor Chukchi; their only enemies are other animals and birds of prey. Squirrels, however, are in great demand for their beautiful fur, which is one of the standard means of barter. The common squirrel is white on the chest, grey along the back, and has a bushy black tail, but red squirrels also occur. In some years they are plentiful, but in other years, such as the winter of 1919/20, they are very scarce. The Lamut shoot them with old flint-lock rifles, but the Chukchi use mostly bow and arrow. The bow is nearly two meters long and slightly curved, with a string made of reindeer sinews. The arrow has no feather and no point but carries a head made of a small, flat piece of reindeer horn. It is heavy enough to stun a squirrel, even if it does not kill it. A few of the Chukchi are excellent shots with the bow, which, however, is being gradually displaced by small American rifles.

Besides the ordinary squirrels, there is another which, according to the description, must be the flying squirrel. It is quite small, and running from front to hind legs it has a bit of skin that can be spread out tightly, making it possible for the squirrel to glide through the air from tree to tree. Rats, field mice, and snow mice are numerous. The Chukchi insisted that by the Little Anyui River there lives an animal which answers the description of a beaver, but the Russians denied that tale.

The big, brown, land bear comes out from hibernating in May. In summer time there are many bears on the tundra, and many Chukchi have had serious encounters with them. I met one man who six months earlier had been attacked by a bear and had had almost all the flesh torn from the upper

part of his left arm. The wounds had healed well, but his left arm was crippled. He owed his life to his dog, because the bear left him to chase the dog.

Another man, Noolan, had an ugly scar across his left index finger, and I asked him how he got it. He told me that about four years before, when he had been walking along a small lake, a bear had suddenly jumped up in front of him. He yelled and tried to scare off the bear, but it went straight for him and cut his leg and left hand as it seized him. He fought the bear as best he could, until both of them tumbled into the lake. The bear did not like the water; he let go his hold, crawled ashore, shook himself, looked back at Noolan lying in the lake, and ambled away.

In spite of such adventures, the Chukchi kill few bears. They do not dare to. When a man told me that the previous summer he had seen many bears, I asked why he had not killed any. "If I killed a bear," he said, "I would have made the others angry, and they might have killed both me and my family. We were living alone that summer." Nevertheless, the Chukchi do kill a few bears, but they never eat the meat. What superstition may be the cause of this I do not know. When the Chukchi leave the bears alone, it is not only due to fear and superstitions, but also to the fact that the fur is not valuable. If it had brought a higher price, they would most likely have overcome their superstitions. Furthermore, the bear does little or no harm to the reindeer.

The reindeer's worst enemy is the wolf. There are practically no wolves in the woods; they stay on the tundra or in the mountains and attack the herds grazing at the outskirts of the forests. During the winter of 1919/20 there were many wolves, and the Chukchi living near the mountains lost many reindeer. In the spring, when the herds were driven north across the barren hills, they were watched day and night, but still quite a few reindeer were killed by the wolves.

Among the Tundra People

In the beginning of May, during the calving season, Gregory's and Kaankalj's animals were kept south of the Rauchua River, and Kaankalj's son-in-law Oomje stayed with his wife and baby in a small tent near the herd. Gregory's fourteen-year-old son Sergei lived with them, and he and Oomje took turns watching the herd. One day they had to drive the reindeer to new grazing grounds. Since the very newborn calves were too weak-legged to go along, one of the boys should have stayed with the does that had just had calves. However, the rest of the herd with the many calves was so difficult to manage that they both went along to help each other. Oomje hurried back as soon as possible, but when he approached the remaining does, he saw two huge wolves and a third smaller one playing havoc among the reindeer. They fled before he came in range to shoot, but they had killed twelve newly born calves.

There are all kinds of foxes — red, white, blue, black, cross, and silver ones. The white fox is the most common, and year after year thousands of fox skins are sold from these parts. During my winter there were few foxes in the woods, probably because field mice and other small animals were scarce. The Chukchi catch the foxes in traps or kill them with poison.

The ermine is very common in the woods, as well as the wolverine, which is nearly black with two grey stripes running along the sides and meeting over the tail. In the rivers toward the sea lives an otter whose fur the Chukchi use for trimming their summer caps. During the last few years they had shot a few specimens of an animal which, from their description, must be a lynx, with the characteristic tufts of hair on the ears. It does not live in the woods but on the tundra, and is supposed to have come there only a few years before.

The Chukchi also told me about an animal that they called the "river-hand." It is black or brown and only about

Traveling with Reindeer

ten centimeters long. It has four short legs, each with three separate toes, and quite a long tail, no bones, and no hairy covering. It lives near rivers and lakes and swims like a fish. It goes ashore but moves there very slowly.* “One sees the animal only when someone is dead or will die soon,” they say.

In winter there are not many birds in the woods. The most common is the white or Arctic partridge, which is very abundant along the rivers. I have seen them singly or in flocks of twenty to thirty. The Chukchi tell that at times they catch many of them in snares, which they put in the openings of fences made of twigs, but I have not seen them catch a single one. On March 9 I saw a raven, but I do not know if it stays over the winter or not. On March 5 a small, pretty bird, some kind of a woodpecker, appeared and was later very common.

There are several hawks and owls. I saw the first snowy owl in the middle of April. It nests here and is very common. Somewhat later, on April 30, I saw an eagle. The eagles come when the calves are born, and kill these whenever they can. The snow bunting arrived at that time, and shortly afterward, when I reached the coast on May 17 on the way to *Maud*, the grey goose appeared as the first messenger of summer.

Mosquitoes are thick, especially inland, and must be a great pest, judging by the facial expressions of the Chukchi when talking about them. The reindeer are much bothered by the reindeer fly, of which according to the Chukchi there are two kinds; one crawls in through the nose of the reindeer and lays eggs in the throat, which develop into long worms. Another kind attaches itself to the reindeer's back and lays its eggs there; these develop into shorter worms. In the spring, when the snow is melting, the worms fall to the ground off the backs of the reindeer or are coughed up with

*The salamander genus *Hynobius* is found as far north as northern Siberia.

Among the Tundra People

slime or blood from their throats, and shortly afterwards innumerable reindeer flies come up from the ground, to annoy the reindeer just as the mosquito annoys the people. On the coast, however, there are comparatively few reindeer flies, and the nose fly is very rare, although farther south there are many. This is the main reason why the reindeer seek the coast in summer.

Still, there are so many flies that in the beginning of May emaciated calves have hundreds of thick, fat worms under the skin and scores of them in the throat. In the spring, when a Chukchi catches a calf, he throws it down, sits on it, squeezes the worms out through the skin, eats them, and enjoys himself. As far as I was concerned, they were welcome to this feast! I tried to make it a rule to at least taste all food used by the Chukchi, but in this case I could not manage to do so.

WINTER LIFE

Shortly before Christmas, on December 13, we reached the place that Gregory had picked out for winter camp. We settled down right in the densest woods halfway up a hill, and a couple of kilometers from the river. No one stays right by the river, since either there is a damp wind blowing or it is much colder there than farther up. Our neighbors lived along the slope stretching eastward from our site, or else by the hills on the west side of the river.

The different families of the Reindeer Chukchi appear each year to spend their summers at about the same place by the coast, and their winters near the same place in the woods. Thus, the generations of a particular family establish right to such and such an area. When, for instance, I asked a man where he would go in the summer, he told me he would stay by a small river near the Rauchua, and added, "That is our river." But there are no very severe rules; the coast is long and the woods are wide, and anyone is free to choose a new place.

Many of the Chukchi, perhaps most of them, live all winter long as they do when moving. They use only their moderately large tent and inside of that a sleeping tent,

Among the Tundra People

which must be taken out and beaten free from frost every day. If you should come to such a Chukchi camp in the middle of the day, you would not find much protection from the cold. There is no fire in the tent, because among those who live like this all cooking is done outside as long as they stay in the woods. The sleeping tent lies on the ground, and every once in a while a woman beats a few strokes on it. Now that she has all day to do it, there is no reason to hurry. Everyone stays outdoors, from the baby who sits in its square bag, propped up against a tree stump and playing with its bare arms, to the old folk who shrink into their fur clothing. The guest also has to stay outside, even though he may be shivering with cold. The tent serves only to protect the sleeping tent from snow and wind at night. During the day it is quite useless.

Some of the Chukchi have a different arrangement, which seems far better when staying three months, as they do, in the same place. They put up a huge tent with an entrance protected by a sort of canopy made from a piece of old tent covering or an old sleeping tent. The entrance itself is primitive enough. The tent covering reaches to the ground, and you lift it up and crawl in. Directly opposite the entrance is the sleeping tent, with the hairy side turned out and supported by an inner framework of props and crosspieces. The outside is covered with layers of dried grass, which makes it comfortably warm, or even so warm that, if there are many people in the sleeping tent, the front wall must often be lifted to let in fresh air. Such a tent is made fairly roomy – about two meters square – with nearly two meters to the ceiling, but these measurements may vary considerably, and the shape may also vary. Some put up skeleton houses of sticks and poles, and place their tenting over it and their grass-covered sleeping tent inside of this.

For the winter I built myself a small hut with entrance from the large tent. The slanting walls were made from round



Gregory and Kaankalj aboard Maud, May, 1920.

poles, which were placed side by side and covered with snow; the roof was flat and covered with rough reindeer skins. A small stove made from a big tin can kept the hut warm and cozy. A couple of reindeer skins on the ground, my sleeping bag, a lantern, a box with some small articles, and a shelf for papers and writing materials completed the furnishings.

The Chukchi found my hut splendid. It was warm and free from smoke, so I had visitors at all times. I had to show extensive hospitality, which took a lot of time; but it was all part of the game, because I wanted to make the Chukchi talk, and because I might want to visit these same Chukchi later.

But I drew one line, nevertheless. I never had guests for breakfast. In the winter I prepared my own breakfast: coffee, and flapjacks, made of flour and water with a little baking powder. The flapjacks tasted like civilized food, both

Among the Tundra People

on weekdays when I put sugar on them, and on Sundays when I celebrated by having marmalade. The Chukchi loved my flapjacks, too, when I once in a while treated them, and I should have had my hut filled with guests every morning had I not hit upon a bright idea. I explained that my religion demanded that I eat breakfast alone, and my religion was respected.

The Chukchi themselves are very hospitable. If a stranger comes to a tent during the day, he is offered food and drink as a matter of course, and if he comes toward evening, no one asks him to stay overnight for that is taken for granted. The visitor is given the best place, and he is taken care of first, whether young or old. Often he receives gifts when he departs: tea or tobacco, or perhaps a reindeer.

Even though some of the Chukchi put up large tents, the men stay outside most of the time during the day, since the tent is always dark and often full of smoke. The lower part is so well covered with snow that there is barely enough draft for the fire to burn. All light is derived from the smoke hole at the top, so the tent is far from being a pleasant place. There is, of course, the sleeping tent, but no man would think of sitting in there during the day, unless the weather was terrible. In the big tent the women do the cooking and repair the old or make new clothing, but at this time of year they are lazy. The cooking is very simple, and they do not sew more than absolutely necessary. One day they have a sore hand, the next day their back is aching, and the next the light is poor, and so forth.

The Chukchi have good cooking vessels, large copper pans and teakettles of copper. The kitchen utensils comprise a dipper used mostly when you wish to help yourself to broth from the meat kettle, a flat wooden bowl, a flat iron pan or an enameled washbowl to serve food in, an enameled plate or two, a couple of spoons, and a small wooden box with china cups and saucers. The latter are

wrapped in old pieces of cloth or sacks, and are treated as a great treasure.

Great cleanliness is not the rule. The pans are cleaned once in a while with an old bit of skin or some grass. When you have had your tea, the woman takes the saucers and licks them off one by one. She licks only the top side, and the bottom side accumulates soot and grease. The cups are wiped off by the fingers, or by the old rag in which they are wrapped.

The women who stay continually in the smoke-filled tent gradually grow sadly dirty, since only occasionally do they wash their hands in snow or fresh urine. They always work with their arms exposed, and often they let the fur clothing drop to the waist. As a result, a layer of dirt, soot, grease, and reindeer blood covers their arms and body above the waist. The children also usually look like this, and it does not make them more attractive that they often have slight colds and running noses. The men, however, keep surprisingly clean, partly because they stay out in the fresh air, and partly because every night they drink such quantities of boiling tea that perspiration pours down their bodies.

The dogs usually stay in the tents with the women. They are either tied up in a corner, or they curl up so close to the fire that most of them have big singed patches. If you watch them sneak up to the fire and hear them howl when they are chased away, you learn what it means to "freeze like a dog." All dogs are skinny. They are given just enough to keep them alive, and take every opportunity to steal.

One morning, shortly after we had established our winter camp, Kaankalj crawled out of the sleeping tent to start the fire, but a moment later she came rushing in scolding and screaming, and literally pulled her half-grown daughter out by the hair. The previous night the sled with

Among the Tundra People

the winter store of seal oil and reindeer fat had not been lashed, and the dogs had taken advantage of the opportunity to steal a kettlefull of reindeer fat and to tear a hole in a skin bag with seal oil, and had eaten their fill.

The dogs of the Reindeer Chukchi are of no earthly use. No attempt is made to use them to watch the reindeer herds; on the contrary, in spite of repeated beatings, some of the dogs will chase the reindeer if given a chance and may injure them. But dogs are kept, partly because they play a certain part in the religious ideas of the Chukchi, and perhaps also because their fur is needed for edgings and trimmings.

The Reindeer Chukchi eat practically nothing but reindeer, meaning that they eat everything of the deer that can be chewed, from marrow and sinews to the scrapings from the hide. When a reindeer has been killed by a knife in the heart, a few cuts are made along the belly and legs, and the skinning is done by hand. The belly is opened by a cut on the side, and the stomach sack is taken out and emptied. The blood is scooped up and poured into the sack, which is sewed together with a few stitches and left to freeze. Sometimes the stomach contents are thrown away, but more often they are emptied into a pan and the solid parts are fished up with a dip-net and put back into the stomach sack together with the blood.* The remaining entrails are taken out and cleaned, and the animal is cut up in pieces which are laid out on a skin to freeze.

The sinews along the back are carefully cut out, dried, and used for thread, while the sinews along the legs are used for straps and thongs. The kidneys are usually eaten raw and warm, the liver and lungs are slightly roasted over the coals. The brain is considered a delicacy and is eaten raw or frozen, in the latter case mixed with frozen marrow. The heart is

*This and similar practices among far northern people are considered anti-scorbutic; they provide supplementary vitamin C. See Hygaard, A., and H. W. Rasmussen, Vitamin C in Eskimo Food, *Nature* (London), vol. 143, p. 943.

always boiled, usually immediately after the animal is killed, and is a special tidbit. The meat is eaten either cooked or frozen and raw. The Chukchi do not eat thawed-out raw meat, but they like their cooked meat rare. Meat is never roasted, but frozen pieces are put in the pot and are taken out underdone and juicy.

The main meal is always at night. A big kettle full of meat has long been simmering over the fire, and finally a big platter of steaming pieces is brought into the sleeping tent, where the woman of the household serves those present in their order of age and importance. You take your piece in one hand, bite into it, and with your knife cut a chunk off at a proper distance from your mouth. I often thought of the people who say they are happiest when they have a piece of steak in one hand and a potato in the other. They certainly would enjoy themselves with the Chukchi – if they could get along without the potato.

The bones are chewed off carefully, but even if you give them back ever so well polished, the women will go over them carefully and usually find a small sliver of meat or a piece of sinew here or there. When you have had enough and have scraped the fat off your hands with a knife, you are given a handful of grass or a piece of skin to use as a napkin. It is decidedly bad manners to wipe your hands on the fur on which you are sitting, or on your clothing.

The chewed-off bones are gathered and are later crushed in order to boil out all fat. Day after day the bone-crushing hammer is swung by the younger women. The hammer is an oblong stone tied to a short wooden handle by means of leather straps. The bones are crushed against a large, flat, round stone lying in a large tray of sealskin. The fat which is obtained from the bones is especially good, white and solid, and is eaten with lean meat or used for burning in the lamps instead of seal oil.

Among the Tundra People

The Chukchi breakfast has been mentioned before — cold, boiled meat with an added flavor of the sleeping tent. During the day they have tea and boiled or frozen meat once or several times, according to the pleasure of the household or of possible guests.

The children are usually given blood soup once a day. This consists of boiled blood, mixed with chopped pieces of the reindeer's stomach sack and with fat. This is a dish which little girls of six to eight years prepare themselves, and which the young boys enjoy greatly. When ready, it is poured into a flat pan, and the boys, lying on their stomachs around it, lap it up like dogs, while the girls eat with their hands from the kettle.

The girls have to help in the tent as soon as they can walk. Gregory's smallest, little Tangakua, who was hardly four, toasted liver over the coals with the efficiency of an expert. The babies are fed nothing but the mother's milk until they are a year old, when they are also given a little meat, boiled or frozen. Often they are not weaned until they are three or four years old.

When a Chukchi is starting for a long trip, he is given a kind of pemmican called "prarem." Boiled meat is dried and crushed fine, mixed with warm, running deer fat into a thick paste, fashioned in small loaves, and put in the cold to harden. This "prarem" is concentrated food which tastes splendid in cold weather. For traveling rations the Chukchi also use wind-dried meat and reindeer fat, usually the fat that has been boiled out of crushed bones.

In the winter the Chukchi live entirely off their reindeer. What little seal oil they have is needed for their lamps, and not much can be spared for eating. They do not catch any kind of game, and vegetables are not used, with the exception of the half-digested contents of the reindeer stomach. On one single occasion I was offered some stringy and tasteless bark from the root of a bush that grows along the river,

and a couple of times I was served roots which had been gathered in summer. Some of these have a very pleasant flavor, and are cooked and mixed into the "prarem," or used in the blood soup when this is made for a special occasion. Roots of a fern, which are very sweet, are eaten raw with frozen brain.

One cannot claim that the Chukchi live thoughtlessly from hand to mouth when one knows that they save these roots, which they like so well, until far into the winter, or when one has seen how, during the winter, they put aside the fattest and best pieces of meat for spring, when the reindeer will be skinny and the meat poor. Even less can one say that they are wasteful with their food. Not the least bit is thrown away.

They like sugar, but they don't like or use salt. Meat that has been cooked with salt is considered spoiled. When they can get flour, they use it gladly, for a thick soup of flour and fat. During the winter I spent with them flour was used in a different way, however: it was toasted over the fire and used for brewing "tea."

Tea is one of the three essentials to the contentment of the Chukchi. They drink unbelievable amounts of it whenever and wherever possible. When there is none to be had, they use substitutes, such as leaves from berry plants or toasted flour. This flour-tea, however, tasted better than some of the tea they bought from Russian traders.

The second essential is tobacco. Everyone smokes, old and young, men and women; I met only one non-smoker. Even the babies get a puff or so from the pipe before they are weaned, and I often saw a child leave the mother's breast and toddle over to the father for a puff. "Get-a-smoke" are some of the first words they learn to say. Tobacco is their friend in joy and their comfort in sorrow. Kaankalj told me often that when her former husband had died four years before, she got a whole box of tobacco just for herself,

Among the Tundra People

to help her over the first hard months. When a woman in our neighborhood lost her husband, her brother came to me with various gifts to get some tobacco — just a little for the widow who needed it so badly. When they are ill, tobacco is their comfort. Even if they have such a bad cold that they can hardly take a puff from the pipe between coughing spells, they need it still more. Everyone inhales, no matter if the tobacco is so strong that they nearly lose their breath.

One morning on the way south I had quite a scare. We had several guests, and one of them, a man with his left arm paralyzed by a slight stroke, had to sleep in my sleeping tent. In the morning, when I filled his pipe with my own tobacco, he took a couple of deep puffs, grew pale, dropped the pipe from his hand, and fainted. Fortunately, he soon revived enough to stammer, “Your — tobacco — is — very — fine — but — strong.” Our tobacco was too strong for most of them, but the strength was reduced and the supply stretched by mixing it with fresh wood shavings.

As a whole, they were very economical with their tobacco. They have mostly two types of pipes: metal pipes with long stems, that remind one of opium pipes; and pipes with small molded heads, which are tied onto a large hollow piece of wood that serves as a mouthpiece. Besides these, a few have nice wooden pipes with tin ornamentation. If tobacco is low, they much prefer the pipes with the large, wooden mouthpieces, which are hollow and closed at one end by a wooden stopper. The hollow is filled with wood shavings that absorb the tobacco juices. When the juices have penetrated far enough into the shavings, the Chukchi dig them out and smoke them. In this manner they utilize their tobacco twice. The many who chew tobacco, especially the women, prefer the sweet American kind to the bitter Norwegian chewing tobacco.

My winter was a sad one for most Chukchi, for they lacked tobacco. I had brought along from *Maud* tobacco for

Gregory, his family, and myself, and some for bartering, but my supply was like a drop in the ocean. In spite of the shortage, I can't say that the Chukchi begged. A few, especially some women, were bothersome, but most of them simply stated once or several times that they were completely out of tobacco, a remark that in itself is irritating enough when you have very little yourself and have no way of replenishing your supply.

The Chukchi, however, are very generous among themselves. The one who has some always gives a little to the one who has none. Next time things may be reversed. Their generosity, however, is not always based on this selfish point of view: many of the rich men hand out their gifts without ever thinking of receiving anything back. To be considered greedy and miserly is very bad among the Chukchi. The adjective "nepasjakin" – miserly – is one of the worst they can use about a man.

I, who wanted to be in good standing with everyone, was continually giving out tobacco. Often I was given a hint by Gregory that this one or that one should be given an extra large chew, for he was a great magician and might make all of us ill if we offended him. I also had to adhere to the unattractive custom of handing my pipe to the person sitting next to me after I had taken a few puffs. To deny anyone tobacco is bad, but to deny anyone a puff from your pipe is a crime amongst both Chukchi and Lamut. To explain this, Gregory told a fantastic story which he insisted had happened when he was a boy. But his imagination was very lively.

Gregory told that two Lamut met on a trail. The one, who was known for his harshness, had a big, well filled tobacco pouch hanging on his chest, while the other had none. When asked for some tobacco, he refused. After they had walked together a little way, the first man stopped, filled his pipe, and smoked. The other man asked him for a

Among the Tundra People

few puffs and again was refused. He lost his temper, drew his knife, killed the miserly fellow, and took his pipe and tobacco. After his smoke, he went to the dead man's tent, where the wife and father lived, and told them what he had done and why, and that they might now treat him as they saw fit. They let him go, but the next day he returned with many reindeer to give them as a recompense for the killing. The family, however, refused to accept any compensation, for they did not doubt that the deceased had acted as reported, and that he had only got what he deserved.

To most of the Chukchi I met, liquor meant nothing at all. The Russians had long ago prohibited all sale of liquor, and the Reindeer Chukchi are so isolated that among them prohibition had actually been effective. A few old men asked me eagerly for "akkamimil" — firewater — and were willing to pay any price, but the younger people did not know what it was. No one under thirty asked me if I had any liquor.

The Chukchi's third essential, which far surpasses tea or tobacco, is the reindeer, which to him means food, clothing, shelter, and transportation. The Chukchi whom we met around Ayon were, on the whole, rich people, with such large herds of reindeer that not only could they live without worry, but they could also sell reindeer and skins to their neighbors. How many reindeer a man owns is not easy to learn. If you ask, you are told that he has "many" or that he hasn't counted them. The fact is that he can't handle such a big number. The largest numerical unit that the Chukchi know is twenty, the number of fingers and toes. Their words for five, ten, and twenty can be translated as "like one hand," "like the hands," and "like a man." When a Chukchi counts, he always uses his fingers, and he cannot count two without holding up two fingers. When he says "fifteen," he clasps his hands around one knee, and for "twenty" he clasps his hands around both knees. If he has

to deal with such a stupendous number as one hundred, there must be five people present whom he can push to one side where they sit, to represent one hundred fingers and toes. The expression for one hundred is not "five times twenty," but "five people, all fingers and toes included." Since their arithmetic is so undeveloped, it is not strange that a rich Chukchi does not know how many reindeer he owns.

In order to get some idea of the number of reindeer needed to support a family, I had to try to count the deer in a herd whenever possible. It appeared that when a family of two adults and three children had about three hundred reindeer, of which one-half were does, they were considered quite poor: they didn't have enough for their own household use. If such a family owned five hundred reindeer, they were fairly well off; and if their herd numbered around one thousand, they were considered rich. Quite a few of the Chukchi I met owned between eight hundred and a thousand reindeer, and one man, said to be the richest of them all, had five herds which, according to description, must have numbered at least one thousand each.

One can get a good idea of the size of the herds when one knows that all the numerous small calfskins, which play a large part among the articles of barter, are derived from calves that had died a natural death. The Chukchi never kill a newly born calf. From what I have seen, at the most ten to twenty per cent of the calves die shortly after birth. Therefore, when a rich man has about one hundred calfskins to sell, one can surmise that he owns between five hundred and one thousand does. Quite a few Chukchi arrive at the annual market with bundles containing more than one hundred calfskins.

A rich man cannot by himself look after his large herds. Some more or less poor Chukchi joins him and is given reindeer for slaughtering and, once in a while, a calf to add

Among the Tundra People

to his own little herd. By hard work, by following the herd on foot and sleeping out, by separating and driving back reindeer that have joined other herds, by catching the draft deer, and so forth, and by sensible trading, a poor man can through the years work himself up to becoming well-to-do. The Chukchi say, "If you are young and poor, you must run much and sleep little." Gregory, my host, had joined the Chukchi as a young man and had worked himself up. When he married, he had only ten reindeer, but he worked all the time for rich men, and for weeks and months he did not sleep in a tent. Now, with his three or four hundred reindeer, he was, if not well off, at least fairly independent and could let his children start life with a better chance than he had had. On the other hand, a rich man may easily become impoverished. If he fails to keep an eye on his herds, he may be cheated by his servants (if one can call them such), or he can squander his deer by repeatedly making poor trades, especially if he buys tobacco and tea without considering the price, and at the same time distributes gifts right and left. Again, the reindeer may be hit by disease, which may destroy a whole herd. About four or five years before my visit, such a disease had appeared among the reindeer. It made the legs swell immensely, and almost all that became ill died, reducing many herds to one-half or less.

The Chukchi mark their reindeer by a cut in the ears or by chopping off a vertebra or two of the already short tail. The marking takes place during a ceremonial festivity in the last part of April, when the calves are nearly a year old and before the spring calving. A large half-circle, nearly two meters high, is formed by sleds, wooden poles, and tent coverings, and the calves and does are separated from the rest of the herd and are driven into the half-circle. The ends of the half-circle are turned inward, and across the open space a living fence is formed by young boys and girls who have come from all over the neighborhood, partly to help

and partly to have fun. In front and to the left of the half-circle of sleds is placed a pile of antlers. Next to the pile a spear is planted in the snow, perhaps indicating that in past times it was necessary to defend the herd against robbers.

The does are wilder than the draft deer. When the draft deer have been driven into the primitive corral, they keep moderately quiet. From old experience they know that it is useless to try to escape. But the flock of does mills around and around in a wild gallop, and every once in a while some of them try to escape, usually without success because there are too many lassos ready to stop them. Many a calf is trampled and dragged around half dead. Only once, however, did I see a calf so badly injured that it had to be killed.

To begin with, a few reindeer are slaughtered. The owner or one of his men goes into the flock and selects several which are caught by lasso, pulled in front of the half-circle, and stabbed. Soon slaughtered reindeer are lying in front in a row, and women and girls are busy cutting them up. Then the catching of the calves begins. As the flock gallops around, lassos are thrown after every yearling within reach. It is important to throw low in order not to get the lasso tangled in the horns of a grown doe or one becomes the laughing stock of the crowd.

This is a big day, to which the little boys have long looked forward. They all know how to throw the lasso, but they are too small to catch a grown animal, for they cannot throw the lasso far enough nor can they stop a running reindeer. Now, however, they can show their skill. If a boy misses, a lasso from one of the grown-ups whines through the air, and a calf is caught by the horns or legs, and dragged aside. A mark is cut in one or both ears, and most of the male calves are castrated — usually without the use of a knife, but by biting the testicles out. When this is completed, the calves are driven over to the flock of bucks and draft deer.

Among the Tundra People

At last, only the does are left, and they are driven away by themselves, to remain separated from the rest of the herd during calving time. The Chukchi say that when the young bucks chase around, they are apt to be followed by the does, and this is not good for them or their new-born calves. The first calves see daylight about the twentieth of April, although most of them are not born until the first two weeks of May. The Chukchi tell that the wild reindeer have their calves later.

While the calves are being marked, one has a great opportunity to admire the almost unbelievable knowledge that the Chukchi have of their reindeer. The marking of the ears seems an unnecessary procedure, and is in reality not very important, partly because several owners have markings so similar that they can hardly be told apart, and partly because animals are so often traded or given away that a man always owns a number of reindeer with foreign markings. It stands to reason that the Chukchi can tell the grown reindeer apart, since they vary in size, shape of head and antlers, and color. Many are distinguished by white spots here and there, or by white legs, and some are all white with blue or reddish eyes. But to the inexperienced all the dark-brown calves look exactly alike.

Nevertheless, the Chukchi know every single one before catching them for marking. One evening, after we had started on our way back to the coast and before the calves were marked, I walked along the Makju-oam River with a young, rich Chukchi. His and the herds of others had just been driven north along the river, and all along the trail there lay calves so starved that they had been unable to keep up with the herds and had been killed. To me they all looked alike, without any markings, but the Chukchi could at a glance tell to whom they belonged. A young Chukchi knows not only his own reindeer but most of his neighbors', so that the number he can distinguish must amount to

several thousand. The young boys know the deer best, because they have been living with the herds since they were six or eight years old. The old men take frequent trips to inspect the herds, but one has to stay with the deer in order to know every calf.

Although the Chukchi live in one place in winter, the reindeer herds must often be moved to new pastures. Only a small group of driving deer is kept close to the tents. The large herds are driven to the camp for the big slaughterings that take place during the winter, but most of the time they are far from the tents. They are never left unguarded for very long, however. A young couple, or a half-grown boy, or some children of ten to twelve years stay in small sleeping tents close to the large herd, which they may leave for a day or two at most. The care-taking is very simple if there are no wolves around. All that is necessary is an occasional trip around the herd to ascertain that no reindeer tracks lead away.

The winter usually passes quietly and without hard work, but the early spring is a busy time, because many reindeer must be picked out of neighboring herds into which they mixed in the fall when the reindeer were driven to the woods. Although some reindeer were separated at once, others were left, and in winter every herd contains deer belonging to the neighbors. In spring, when the owners plan to move in different directions, the young men go from neighbor to neighbor to bring order into the herds. Day after day they walk or drive from herd to herd, and are on their feet from morning to night picking out their own or their neighbors' reindeer, one by one. Often the separation takes many days, particularly when several Chukchi decide to part, after having stayed together during the winter and having let all their deer graze together in one big herd.

Snowshoes are indispensable when the snow is deep. Those used in the woods look somewhat like short, wide

Among the Tundra People

skis. They are about a meter long, thirty centimeters wide, and about two centimeters thick. The wood is slightly pointed in front and back, turned up a bit in front, and covered underneath with leg skins of reindeer or moose. The straps in the middle consist of a couple of thongs across the toes and around the heel. These snowshoes carry well in loose snow and are easy to handle, but do not glide well and are not made for speed. The Chukchi buy these snowshoes from their neighbors, the Lamut, who obtain the wood from a tree of the poplar family, which grows by the Little Anyui River, somewhat south of our winter camp.

The leg skins of one moose or five reindeer are needed for a medium-size pair of snowshoes. These skins are fastened by means of an excellent glue, prepared from the hide of a moose. The hide is chopped very fine, and boiled from morning until late at night in a little water. The skins never come loose, but the wood is so thin that it often breaks.

Besides these snowshoes, the Chukchi themselves make another kind which are similar to those of the Canadian Eskimos. These snowshoes have a wooden frame that is wide in the middle and narrows toward the back and front, where it turns slightly upward. Inside the frame there are crosspieces of wood and a network of leather straps. These snowshoes are used in the spring when the snow has a crust.

The Reindeer Chukchi do not use their snowshoes every day because they seldom walk; they drive. Their winter sleds are light and elegant. A good sled is made of birch, but for the runners a harder wood is preferred when available. The runners are as long as a pair of skis, but narrower, and are held together by four nicely bent arches of birch. The upper surface of the sled is made of crosspieces over the arches, and four pieces lengthwise. Many sleds, especially those belonging to women or to elderly men, have a small railing in back, which looks like a remnant from a time when sleds were larger and heavier, but more comfortable,

with back and armrests which now have shrunk to the little basket in back. All sleds are built a little unsymmetrical, with the right runner higher than the left, with the result that they tend to veer toward the right to keep clear of the reindeer. All parts of the sled are fastened together by straps of sealskin. These are prepared by soaking the skin in hot water to loosen the hair, scraping the hair off, and cutting the skin in narrow strips while it is still soft. The sleds are very strong and well made, considering the primitive tools used. On the sled lies a reindeer skin to sit on, and when a man drives off, his lasso is never lacking.

The most important tool of the Chukchi, next to the knife, is an adz with a steel blade about eight centimeters long and four centimeters wide. The blade is tied to a short, curved, wooden handle by straps, and is used like a chopping knife in shaping the runners and other parts of the sled. The finishing is done by a narrow curved knife with a long handle. When a Chukchi uses a knife, he always cuts toward himself; but, when he cuts off a piece of meat in front of his mouth after having bitten into it, he always cuts down, not upwards, risking his nose.

The many holes for the straps that hold the sled together are made by drills that are worked by a small bow. There is usually a choice of three or four drills. Most of these tools are made by the Lamut, who are good blacksmiths, but some are bought from the Russians. They are kept in a bag of leg skins, together with sealskin straps, ropes made of sinews, pieces of horn of the mountain sheep, pieces of hardwood, and odds and ends. "Where is your tool bag?" is often the first question asked by an arriving guest who has damaged his sled on the way.

All the Chukchi have good American axes, and most of them have American handsaws, which are used mainly for cutting off the horns of the draft deer. For sharpening their tools they use local sandstone or shale.

Among the Tundra People

The light driving-sleds are pulled by two reindeer which run side by side to the left of the sled. The harness is the same as for the work sleds, a wide strap around their necks and between the front legs. Only the right-hand reindeer is directly guided by reins, which are fastened to a strap around head and neck. The reins are equipped with various means for driving the deer ahead. On the left side of the neck is a kind of comb with four to eight sharp teeth, made from the horn of the mountain sheep. The reindeer is driven forward by jerking the reins so that the teeth are pressed against the neck. The right rein usually carries several small balls made of walrus teeth, which are very effective when the rein is used as a whip. The left reindeer, which is fastened to the right one by a strap around head and neck, also carries a sharp-toothed comb to prevent it from going off to the left. A triangle with sharp wooden pegs is tied on the side of one of the animals to prevent it from pressing against the other on a narrow road.

The most effective goad, however, is the "tine," a thin and flexible rod of birchwood more than a meter long, which at the outer end carries a heavy peg made from the molar of a walrus. The "tine" is a nasty sort of a whip. Swishing it through the air is often enough to make the reindeer canter, and a rough driver frequently hits his reindeer so hard that blood runs down the legs.

I know from regrettable experience that one can actually break a bone with the tine so that the animal has to be killed. This happened to me in the spring, when the reindeer were so emaciated that they literally had no marrow in their bones. I was driving with Gregory to one of the neighbors, and as we neared the tents we urged our reindeer ahead because it is good form to arrive at top speed. I used reins and tine, but in my eagerness I struck too low, and, instead of hitting the meaty ham, I hit near the joint and broke the leg. The reindeer had to be killed then and there, but no one

made any fuss about it. I was assured that most Chukchi had had such an accident at some time or another.

The Chukchi are very fond of driving their reindeer to inspect the herd, look for reindeer moss, or visit with their neighbors. The usual question in the morning is not, "What are you going to do today?", but, "Where are you driving today?" A number of driving deer are always kept near the tents. Many of them are easily caught, since they have been taught to like urine and to come right up to a man who holds out a newly filled sealskin cup. The cup need not even be filled; it is enough to wave it. Every self-respecting Chukchi carries such a cup hanging down his back from a little peg fastened to his belt. The reindeer that can be caught in this manner, that "need a drink," are considered especially valuable. The first ones caught are tied to a tree and then the others that may be needed are separated from the flock and driven toward the tree, where they can easily be caught without a lasso.

After the reindeer are caught in the morning, they often have to stand and wait for hours before it pleases the men to take off. Either they have to wait for the teakettle to boil, or they have to talk to company. They may decide to stay home after having been on the point of leaving three or four times, but more often they drive off toward noon, to visit and drink tea and talk. They need to know where their neighbors' reindeer are, or the condition of the snow, how much reindeer moss there is, and so forth. Occasionally they bring back a few reindeer that have strayed far from the herd. At every special occasion the women go along to help with the slaughtering, which always takes place and seems to be the main part of every festivity. The young women almost all have babies who must be taken along, in the back of the sled under a covered top. Here the little ones sit, so well bundled up that a long drive at twenty degrees below zero does not seem to bother. The women drive their

Among the Tundra People

reindeer just as well as the men, and many of them who have grown up without brothers can use the lasso with the same efficiency as the men.

The trail to the neighbors is often long. It winds through woods or leads over open, flat country, or across the barren hills. Often the Chukchi drive recklessly in full gallop on a narrow trail between trees and stumps. Once in a while the speed is unintentional, because the reindeer may get scared and run out. The young boys get the difficult reindeer to drive — the ones with all kinds of wild ways — and it is a wonder that the boys are not hurt more often. They ruin their sleds, but again and again they miraculously get away without a scratch. Gregory was always afraid, however, when I wanted to drive alone to the neighbors. He let me have only the oldest and slowest and steadiest reindeer, that in spite of all efforts refused to hurry, and even so he tried to scare me by repeating over and over again a story about a Chukchi who had driven into a tree in the dark and been killed.

In spite of all his precautions and warnings, I had an accident that might have turned out to be serious. I had accompanied some guests on their way home, had driven with them up the wooded slope, and had turned back on the barren mountain plateau. My two old, obstinate driving reindeer were so happy to return that they started back at top speed. Everything went fine until we reached the woods again, but here the hill was so steep that I lost control of my animals. They developed more speed than I had thought them capable of, and suddenly they took opposite sides of a formidable tree stump. In a split second I threw myself out into the snow, the sled was smashed against the stump, and I was dragged along by the reins. When the reindeer tired of dragging me through the snow, they stopped, and I got back on my feet and tramped home behind my wreck of a sled. My face was red when

I reached camp, but Gregory was only happy that I was unhurt.

When arriving at a neighbor's, it is good form to come into camp at a gallop and to stop suddenly in front of the tent, where your host at once takes care of your reindeer. The women are welcomed with hearty hugs and sit down around the fire or disappear into the sleeping tents to give free rein to their tongues. The men pull out their pipes and begin a more deliberate conversation.

The newly arrived people are greeted with the question, "Have you come?" ("Je-ti?"), and you answer with your cheeriest, "Yes" ("E-e"). If you wish to be especially polite, you may answer, "I have come" ("Met-jen-mek"). I have never heard any other form of greeting than this, except that a few might use a Russian greeting toward me. There is no taking leave. You announce perhaps that you are now going home – or you simply disappear quietly.

As a whole, the Chukchi are not formal. You are not urged to eat more if you say you have had enough, and when you have eaten and announce that you are leaving, you will not be asked to linger. But this does not mean that they have no rules for conduct. The children are early taught to be "seen but not heard" and to show obedience and respect for grown-ups, especially the older people. Their bringing-up is usually done without harsh words or beating.

But the Chukchi are far from punctual. If they promise to do something at once, it may be done after two or three hours, or the next day. If they promise to do something "tomorrow," it will be done, not tomorrow, but some time in the future.

Time is unimportant to the Chukchi, and their division of time is as primitive as their arithmetic. They divide the day into different parts, according to the position of the sun in the sky, or they indicate the hour by pointing: "The sun stood there when I left home." The year is divided into six

Among the Tundra People

seasons: summer, mating time for the reindeer, fall, winter, after-winter (“niaulauk,” March and April), and spring, when the does have their calves.

Along with this division goes the division into “moons.” The Chukchi count thirteen moons in the year, which is fairly accurate, since there usually are thirteen full moons a year. When they want to explain which “moon” they mean, they count on finger joints and knuckles, wrist and elbow joints, shoulder and head. They begin, for instance, with the first fall moon on the wrist of the right hand. Then the second fall moon falls on the elbow, the first winter moon on the shoulder, midwinter moon on the head, and so forth. I tried in vain to learn the names of all the “moons,” and finally I concluded that either only the winter moons have ever had special names, or the names for the summer moons are about to be forgotten. Everyone agreed upon the names for the winter moons, but I did not twice receive the same answer when asking the names for summer or fall moons. A reason may be that only the winter moons are of importance. In summer, when the sun is continually above the horizon, one does not even notice the moon.

Some confusion seems to arise from the fact that dividing the year into thirteen moons does not come out quite right. When we had full moon in the beginning of April, I asked what this was called, and was told it was “graa-aa-aljin,” which evidently has some connection with “graak,” the time that the calves are born. When the next full moon appeared in the beginning of May, I was told that “this, too, is called ‘graa-aa-aljin.’” I wondered why two moons had the same name and was told that the May full moon was not the real “graa-aa-aljin,” but long ago the calves had been born at the preceding full moon, which used to be the “graa-aa-aljin.” The explanation must be that the calves are born at about the same time of the year, but the full moon does not come back at the same time.

No one could tell me how many days are between two full moons, nor in a year. They do not count. Since the Chukchi do not count the years, no one knows his own age. I had considerable difficulty, therefore, in finding out how old they were, but again I was helped by old Ankjem, who had visited Nordenskiöld's ship *Vega* in 1879, forty years before I met him. He told me that his oldest boy had been with him. "My boy was so tall," he said, holding his hand eighty or ninety centimeters from the ground. The boy probably was four or five years old at that time. Since the Chukchi marry young, Ankjem must have been between twenty-two and twenty-four, meaning that now he was between sixty-two and sixty-four. He claimed to be the "oldest of all Chukchi," and, although he probably was wrong, it is evident that very few pass an age of sixty-five and that sixty is a very great age.

The son who had been with Ankjem on board *Vega* was now about forty-five, and he could tell me that such and such a man was of his own age ("We were boys together"), or that some were younger and some were older. These others could point out those who were of their own age, and so on. In this manner I learned a great deal about how old my friends probably were, in spite of the fact that none of them was able to count the years.



GAMES AND STORY TELLING

During winter the Chukchi have time enough for all sorts of games, contests, and sports. As elsewhere in the world, the children's play is an imitation of grown-up activities. The little girls make tents of twigs, and instead of mudpies, they make dishes of snow, they serve meals on wooden chips, and they dress and undress their dolls. They love to dance, if that is the word. They stand facing each other in two rows, sing way down in their throats, "hreaa-he, hreaa-he," and bend their bodies to the right and left, keeping time with the singing. First the arms hang down, then one arm is lifted upward at an angle and the other is held downward at a corresponding slant, and then they suddenly turn all the way around and change the position of their arms, all the while continuing their song. There is little variety in either the dance or the chant, but they have a good time for hours.

A boy's first and only toy is the lasso. He gets his first lasso before he can walk, and later the lasso grows with the boy. He throws it at pieces of wood, reindeer horns, or stumps, and he is not very big before he can use it for play and work. In the most common play a young tree is cleared

Among the Tundra People

of all branches, and the top is cut off four or five meters above the ground. To the top is fastened a rope of sinews which reaches almost to the ground, and to this is tied a piece of wood the size of a fist. This is swung around the tree in a wide arc, and the game is to throw the lasso from a distance of about three meters to catch the rope right above the piece of wood. The small boys are at all times gathered around this tree, but it is not a game for them only, but one for old and young of both sexes. Often the young girls are the most enthusiastic of all, particularly if some grown boys take part. The one who catches the wood triumphs, and the ones that miss are laughed at, and all along they mix crude courting. As the days grow longer, the game continues far into the bright nights.

Whenever young boys get together, it doesn't take them long to start different kinds of sports and tests of skill and strength, while the older men sit around and watch and criticize, and talk about what they could do when they were young. Wrestling is the favorite sport. The wrestlers lay aside all small articles such as knives, pipes, caps, and mittens, and approach each other with bodies bent forward at nearly right angles and with their arms swinging in front in order to grab hold of each other. They seize the parka at the collar or the sleeves or the pants at the hips and try to throw the opponent down so that his shoulders touch the ground. Their positions are often amusingly awkward because they grapple with their bodies bent way forward and their legs spread as far apart as possible. It is quite a trick to throw a man from this position, so the match may take quite a long time while the two of them pant and grunt as they tumble about. Often they wrestle for fun only, but on many occasions regular competitive matches are arranged. In these they strip to the belt and neither zero nor far-below-zero weather bothers them.



Coastal Chukchi: five young people and a man, in front of a permanent tent, March or April, 1921.

Among the Tundra People

Next to wrestling, the Chukchi like jumping. They do not take a running start, but, feet together, they make two, three, or four broad jumps one after the other. In competition, it is a matter of jumping both far and fast.

The boys know many games for testing strength. A boy lies down flat on the ground with his arms outstretched. Three others grab him, one by each arm and one by the legs, and carry him along, and it is up to him to hold himself stiff as a rod as long as possible. Or one boy holds a wooden stick in his elbow joints while two others take hold of the ends of the stick and lift their legs from the ground. The boy then tries to carry these two a few steps ahead. Or two men sit down on the ground facing one another, legs straight and feet against feet. They both hold on to a leather strap or belt, and each tries to pull the other over to him. Or a boy lies on the ground and another, kneeling in front of him, grabs him under the knees and tries to pull him into an upright position, or sitting down they pull each other by the middle finger. They make stilts in a jiffy from suitable trees, but they are very clumsy in using them. They also have lots of fun racing on their knees.

The greatest amusement in winter and spring is racing with reindeer. One single man may arrange a race, for which he offers one or more prizes, or several living in the same camp may join forces. Among our nearest neighbors there were fifteen races during the winter. A race is announced a long time ahead; for instance: "When the next moon is full, there will be a race at N. N." As the time draws nearer, every visitor who comes along is asked when the race is to be held at N. N., and at last the answer is, "Tomorrow." Most of the guests who live far away arrive a day before the race, and some even bring their reindeer several days ahead, so they will be well rested and in good condition for the big day. Every Chukchi has at least one pair of swift racers.

Games and Story Telling

The one who gives the race has a house full of guests. Tremendous pots of meat are steaming over the fire, and the teakettles are in continuous use. In the open one or more sleeping tents are put up to give the guests shelter, but in spite of this the sleeping tents are so overcrowded and hot that it is too much even for the Chukchi, and the next morning they are all up early. Around the tents different groups gather, the women squatting around the fire, telling each other the latest gossip, and men and young boys looking over their sleds, tightening a strap here and there, trying out the flexibility of the runners, and removing everything from the sleds that is heavy or unnecessary, or fixing their whips, the tines. Everyone has one tine in reserve, strapped onto the sled.

Then the reindeer are caught. On such a day this takes much time, because there are many deer to be caught and because animals used for racing are all young – three to six years old – and often shy and wild. And all morning sled after sled whirls into the camp, bringing the nearest neighbors, men and women, old and young, and soon the place is filled with fur-clad, happy and chattering people, sleds, and reindeer.

At last, toward noon or after, the race can start. Only men take part: boys of sixteen to old men of sixty. They all get their sleds in order and line up anywhere. At the call “ta-ham!” they start, with the one who is giving the race in the lead, but otherwise without order. Some sit calmly waiting and let one after another pass them by, but if it should happen that a reindeer balks, they all return and wait for the driver to gain control. The start of the race is most disorderly and congenial; there is no order of starting and no timekeeper, but the one who reaches home first wins the race, no matter whether he was off first or last.

The track, which has been announced just before the start, may vary from five to seven kilometers over flat country

Among the Tundra People

to twenty-five or thirty kilometers over hills and through rough country and woods. Usually the chosen trail is curved and winding, and wide enough in places to permit an overtaking sled to pass. Sometimes the track follows an old trail, and in other cases a trail has been broken the preceding day by a flock of sleds.

Before the racers are out of sight, the tines — those flexible wooden rods with a walrus peg — whine through the air, the reindeer break into full gallop, and the whole row of sleds, sometimes five or six, other times up to twenty-five, disappear among the trees. While you wait for their return, you talk and smoke and talk some more, then someone shouts, “They’re coming, they’re coming,” and everyone runs out — women, children and old folks. Three or four sleds are in the lead, the reindeer are straining to the utmost, urged on to further effort by the drivers, who, with arms high in the air, are using the reins as a whip on the right reindeer and the tine on both reindeer. The racing is almost as hard on the driver as on the reindeer. Soaked with perspiration and with frost in hair and eyebrows, the driver is entirely unprotected from the spray of snow and from the hoofs. Snow flies about his ears and many a lump of hard snow hits his face. He can barely keep his eyes open and sees little beyond the hind legs of his reindeer. He is all covered with snow, but there are many helpful hands to brush off the winner; the others have to take care of themselves.

The winner drives his sled toward the prize he has picked, and the others choose in the order of their arrival as long as prizes last. However, it is not the driver but the owner of the reindeer who gets the prize — just as at our races. A man who owns several racing teams may go home with several prizes. The most common prize is a reindeer, usually a two-year-old buck, which is tied to a tree or a sled where the racers arrive. Other prizes may be a white fox

skin, a sealskin, or a small bag with tea, or tobacco. All these prizes are fastened to poles driven into the snow. The number of prizes varies according to how many are arranging the race, not upon the number of participants. At one of the first races in the fall there were several reindeer among the prizes and also a small piece of chewing tobacco. The winner did not hesitate a moment; he drove his deer straight to the pole from which the tobacco was dangling. He had plenty of reindeer, for he was a rich man, but tobacco was scarce.

The Chukchi are very proud of the honor of taking first place, and a couple of swift reindeer are highly prized. At the races that winter a few men were always among the winners, and others participated hopefully and faithfully and took turns at being the last. One man was especially good at breaking his sled, repeatedly coming in last on a wreck.

It sometimes happens that things do not run off as smoothly as they should, because someone may come in as winner by taking a shortcut. No fuss is made right away, so the man takes his prize, but he may not be allowed to keep it. The rightful winner talks to some of the older men, explains what happened, and asks them to look into the matter. Yes, he is right, everything did not go off straight, they will think it over. They talk back and forth, and after a couple of days they make a trip to the one who cheated and tell him that he had better give his prize to the next man. I have twice seen such advice followed without protests, but in both cases the ones who cheated were younger men than the winners, and that makes quite a difference. Had the case been reversed, I do not think that it would have been any use for the younger man to complain.

The Chukchi go to great trouble to make their racing sleds light and their runners slick. One showed me that his sled runners had a veneer of thin hickory — “American

Among the Tundra People

wood," as the Chukchi call it – and another showed me the remnants of pieces of whale bone which his father had used under his sled runners.

At their sports meets the Chukchi do not always confine the competitions to racing. Often they arrange wrestling or jumping contests or foot races, but the prizes are smaller – a leather strap, a small sealskin, a little tobacco, or a box of matches. Before a foot race the competitors take off their outer garments, and they look very gay as they run in a long row in their bright red undercoats and pants, each with a stick in his hand. In front runs the man who is giving the race, but as soon as he is satisfied that everything is well started, he drops out and walks home. Once, when the track was long, quite a few nonparticipants went along about halfway, where they stopped and rested. When the runners returned, they joined up again, rested and refreshed, and acted as pacemakers.

Since I never had an opportunity to measure the track, I cannot tell in what time a Chukchi can run, say, eight kilometers, but from what I have seen I believe that, while they are no sprinters, they may have endurance enough to keep up with our cross-country runners on long distances.

On one occasion there was arranged a race between young women and girls, which caused great hilarity among the watching crowd. The prizes were a small piece of chewing tobacco and a dip-net used for gathering the solid parts of the contents of the reindeer stomach. The winning girl, of course, took the tobacco.

When they wrestle at these events, they work fast. There is no question of trying for half an hour or more to throw your opponent. The one who touches the ground with a knee or a hand has lost. First the leader of the match asks someone to wrestle with him. In a few minutes one is thrown, and so on. At last, when all have had a chance, the

one to stay up last wrestles the one who threw the leader, and between them the final fight is settled.

While running and wrestling are common, the Chukchi seldom compete in jumping. I have only once seen them jump for prizes, and on that occasion the prize, a box of matches, was given to the speediest jumper, in spite of the fact that the next best jumped a few centimeters farther.

All these sports, running, wrestling, and jumping, are probably native sports which the Chukchi have not borrowed from anyone, at least not in recent time. It is certain that they have practiced them for many years, because the old men told me over and over again that when they were young the Chukchi could really run, jump, and wrestle, but now they did not amount to much. The many ceremonies and offerings that are combined with these sports events may also indicate that they are very old. Perhaps the Chukchi have previously competed in shooting with bow and arrow. I was present at one meet at which they shot with rifles at a piece of wood some hundred and fifty meters away.

When the sports meet is over, and all have had their last chunk of meat and their last cup of tea, the guests take leave and drive home in long processions, joking, laughing, and singing. They like to sing their monotonous tunes as they drive. However, my ear for music is so poor that all I know is that they do sing, that their tunes do not vary a great deal, and that the rhythm is nearly always the same.

In the evenings, when waiting in the sleeping tent for food to be brought in, someone often takes down the drum and starts beating it and singing. The drum, the "shaman-drum," which plays such an important part amongst all Siberian natives, is not lacking in any Chukchi tent. The drum has a round or oblong wooden frame, forty-five to fifty centimeters in diameter, and a short handle. The drum skin, a reindeer calf skin, is first placed in hot water until the hairs come loose and can be scraped off, and while still

Among the Tundra People

wet it is stretched over the frame. When it dries, it becomes very tight. The drumstick is made from a piece of whale bone about forty centimeters long, slightly curved, and cut in such a manner that it ends in a small knot or peg.

A Chukchi holds the drum by the handle in the left hand, with the skin turned away from him, and his index finger resting on the skin. He holds the drumstick in the right hand and moves it steadily back and forth against the index finger. Because of its flexibility, the drumstick continues its motion when it hits the finger, and so it strikes the drum first with the curved side and then with the knotted end. Thus a double beat is produced. A clever drummer can make a sort of music. He can vary the rhythm and he can vary the loudness by the force of his beat, and the pitch by striking near the edge or in the middle.

Sometimes the drum is used in a different manner. Holding the drum with the left hand, the drummer beats the lower edge of the frame against a square, meter-long stick held in the right hand. When beating the drum in this way, he stands up or partly squats, but when using the drumsticks he sits on the ground with crossed legs.

All Chukchi, men and women, can beat the drum and sing, but a few are especially adept. Often they take the drum and beat it just for fun, or to make a crying baby hush; but the drum plays its most important part in the healing rites, or in witchcraft. More of this later.

The Chukchi can spend hours and hours talking about nothing in particular. I often tried, when visiting neighbors or entertaining strangers, to direct the conversation to earlier days or neighboring people in order to get some information about their tales of the past, or to learn how wide their horizon was concerning other people. One of their tales was that long ago some people lived there called "Sasjaker," whose tents were cone-shaped and who migrated to the west. They did not know more about these people, but the

story pertains perhaps to the Yukagir tribe, of whom a few still live west of the Kolyma River.

One man told me that all along the coast from Cape Dezhnev to the island of Ayon there are mounds or remnants of "dirt-houses," which had been occupied in earlier times. These mounds have been examined and discussed by a number of explorers, such as Nordenskiöld and Ferdinand von Wrangel, a Russian naval officer who made a widely known expedition to these parts of Siberia more than a hundred years ago. Wrangel observed these ruins and tried to learn their history. He tells that at the Bay of Anadyr there lived a people closely related to the Eskimos whom the Chukchi call the "Onkilon,"* which means "those who live by the sea." He also says that, according to the tales of the Chukchi, these people lived all along the north coast of the Chukchi peninsula, and that the remnants found there are of dwellings exactly like those that the Onkilon people now use.

Actually, these Onkilon must be true Eskimos, who live in a number of villages on the Siberian side of Bering Strait, and in some places use winter houses of such construction that the mounds on the north coast may well be ruins of such houses. If this is true, it would indicate that the Eskimos had previously lived all along the coast of north-eastern Siberia.

The Reindeer Chukchi give very vague and contradictory accounts of the people who once lived in what are now the ruined mounds of Ayon. No one used the name Onkilon for them. One man insisted that they were Chukchi who used

*In the next few pages, Sverdrup lists names which he heard applied to several nationalities. The ethnographers, e.g. Bogoras, and Antropova and Kuznetsova (see Reading List), list many more. Apparently any one nationality in the far north may be known by a different name among each of its neighbors, and even among Russian official records. In the general narrative, Sverdrup usually uses names that are widely known, so that for the curious each name he uses can be a key to the other names for the same nationality.

Among the Tundra People

to live like that, and claimed that they were ravaged by disease and that all of them died in their mud houses. He and others said that human skeletons were to be found in the mounds. Another said that they were not Chukchi, but people called "Kamak," a name which means "the dead." Others, however – and they were in the majority – called the people "Kraeakai," a name which evidently is the same as the name of Kraeachoj, who plays the leading part in a tale heard by Wrangel a hundred years ago. Some said that the Kraeakai died out because of disease, others that they migrated to the north. They had reindeer which they took along. Their reindeer were so large that a calf was like a full-grown buck. Now they live "across the ocean," but are dying out because they have too few children.

A third version, a tale which deals with the island of Ayon, goes something like this: Long ago, there lived at Ayon a people called Kraeakai. They were strong and wild people, and were continually demanding reindeer from the Chukchi, but since the Chukchi would not willingly part with their reindeer, there were many fights. Although there were only a few of the Kraeakai, the Chukchi did not succeed in getting rid of them, because it was impossible to kill them. The Chukchi might pierce them with their spears and cut off their heads, but a moment later they were all healed. If they were buried alive or sunk into the sea for days, they came up again just as spry as ever; yes, even if they had been thrown in a big bonfire, they only shriveled up, and as soon as the fire went out they took on their natural shape. The Chukchi had to give up fighting them and let them have all the reindeer they wanted. But then the Kraeakai decided that they had lived long enough and wanted to die, so they let themselves be devoured by the island of Ayon. Even today the Chukchi never slaughter a reindeer at Ayon without giving their offering to the Kraeakai. Meat from the different

parts of the reindeer is cut into small pieces and placed in a pile on the ground, and to this is added tobacco, tea, sugar, and flour. I was told that at one place on the island there is a pile of reindeer horn as tall as a tent, all from reindeer slaughtered for the Kraeakai. When asked if we had not offered any of our food to the Kraeakai when we arrived at Ayon the previous fall, I told that we had nothing to fear because we came from far, far away, and had never had any fight with the Kraeakai.

In June I took a trip to the large pile of reindeer horn at Ayon. It answered the description, as it was about three meters high with a circumference of nine to ten meters. Among the horns lay a number of objects which had been offered as sacrifices: polar bear skulls, pieces of dishes, and models of different tools. I took a small model of a drum from the pile, hid it well, and hoped that no one would notice that it had disappeared, but I was wrong. A week or so afterwards, old Ankjem came to ask if I had taken anything from the pile of reindeer horn when I visited it. If I had, I had better bring it right back, or bad luck would pursue us, but I was bold enough to deny my theft and keep the drum.

In June I also had an opportunity to visit the old dwelling sites found at Ayon. Gregory came with me and showed me where they were. We walked along the coast of Ayon toward the northwest for about three hours, until the steep bluffs, which rose straight up from the shore opposite *Maud's* winter quarters, disappeared, and the ground sloped gradually up from the sea. Here there was ample evidence of earlier settlements. Seven large mounds probably represented the houses of the last inhabitants. The mounds were round, and about a meter high and ten to fifteen meters in diameter. They looked like ruins of huge dwellings, built from driftwood and covered with turf and dirt, the roofs of which had caved in, leaving remnants of partitions and walls

Among the Tundra People

standing. All the mounds had a long walk, or hall, which consisted of two parallel walls leading from the mounds toward the sea for eight or ten meters. Between these large mounds lay ten or twelve low, circular walls, remnants of smaller or older dwellings.

While Gregory lay down to sleep, I tried to dig in the mounds, but without much success, because less than half a meter below the surface I struck frozen ground. Inside the low, circular walls I found a layer of burned bones, charcoal, and smouldered wood. In two large mounds the result was better. In many places I struck half-decomposed wood, beneath which lay bones of polar bear, seal, reindeer, and birds. Besides these there were bits of pottery and pieces of knives or other tools made of stone. Later on in the year, at the end of August, when the upper meter or so of the ground is thawed out, one might make a richer find, but as I could only examine the turf and the topmost layer, the results were meager.

The Chukchi tell that their own people now live in the district from the Kolyma River to Anadyr Bay. The group I stayed with spend their winters in the woods and their summers on the coast between Kolyma and Chaun Bay. Others live farther inland to the southeast and move up the mountains in the summer. Still others, the "Kauradlingen," live all year around with their reindeer on the tundra farther east toward Bering Strait, while, finally, a big group lives all year around by the coast. The latter have no reindeer but many dogs, and are called "Atta-kauradlingen," that is, dog, "Kauradlingen."

The Chukchi we met called themselves "Chau-chu," and evidently the name Chukchi is derived from this. However, my friends used the word in the meaning "rich." A man who owned many reindeer was called a "great Chau-chu"; even a trader who owned no reindeer but had large supplies of tea and tobacco was called "Chau-chu." Later I learned

that the Chukchi living by the coast referred to the Reindeer Chukchi as "Chau-chu," but did not use the name for themselves. The Chukchi, nevertheless, have one common word for themselves: "Ore-eutlan," a word which is also used to denote human beings as distinguished from animals. This seems to correspond to the name "Innuvit," which the Eskimos call themselves and which also means human being.

The Chukchi could enumerate a good many neighboring people. First of all, they knew the Lamut, the Karamkits, some of whom live scattered among them in the winter, or may join them completely, as my host Gregory did. Karamkits, or "Kora-ramkelen," as the name is sometimes pronounced, means "the strangers who have reindeer," and the name might indicate that earlier the Chukchi had no reindeer themselves but have obtained theirs in comparatively recent times. The manner in which the Lamut live and dress differs radically from that of the Chukchi, and the customs, beliefs, and superstitions of the two tribes show no similarity. The culture of the Lamut is adapted to the woods, while the culture of the Chukchi is adjusted to conditions on the barren tundra where they spend the greater part of the year.

West of Kolyma live the "Yakutelin," or "Yakut," who have many reindeer, and some of them even have horses and cows. Among the Yakut live another people with different language and dress, whom the Chukchi call "Orgo-karamken," that is, "neighbors who have sleds and reindeer." To the southeast, toward Kamchatka, live the Liotanits. These also have reindeer and tents that resemble those of the Chukchi, but with the difference that many families live together in one big tent in which each family has its own sleeping tent. These are the Koryak, who are closely related to the Chukchi. By the sea to the east live people who use hooded parkas, and who make holes through their cheeks and fasten pearls, shell, or animal teeth in the holes. These evidently are Eskimos. Beyond these on the other side

Among the Tundra People

of the sea there are supposed to live some people called "Daerakan." Their speech is like the chirping of birds. They are very poor and live mainly on fish and seal. Indians?

So far the Chukchi tales stay within reason, but from here on their imagination runs wild. On the other side of the ocean live a giant people called "Laalidljen." These are as big as mountains, and polar bears are like lice to them. There also is a bird so big that it catches whales and carries them away. Nordenskiöld mentions that the story of the giant bird, which everyone knows from "Thousand and One Nights," is spread among all north Asiatic people, and that these believe the horns of the prehistoric rhinoceros to be the claws of the giant bird.

Far, far away, one Chukchi told me, there is a people with bodies like men but heads like dogs. They are called "Kailak" and are very evil. Others said that the Kailaks looked like other people but were evil beings. Now some Chukchi know who they are: the Russians near the Kolyma have told them that the Kailak are the bad Germans who have fought the Russians for so long!

Of other civilized people, the Chukchi know first of all the Russians who have their homes near the rivers Kolyma and Anadyr', and whom they call "Milje-tanit." These are interbred with the different native tribes, live a primitive life, and are in many respects not easily distinguished from the natives. The Chukchi were right when they distinguished between these and the "Erokjilin" or Russian traders who frequently visit their coast. But the Chukchi were mistaken when they insisted that the Milje-tanit and the Erokjilin speak different languages. This statement caused me a great deal of speculation during the winter, because I could not understand who these people were who came on big ships to bring tobacco and tea, and who spoke neither Russian nor American. The Chukchi knew the Americans, who live on the other side of the ocean, and are very rich. They also

know that they get their best guns and knives from these "Laelvotgolen." Beyond the Americans live a people called "Jilir," who also are very rich. British, perhaps?

Early in the fall when we had been approaching Ayon, the Chukchi had seen *Maud* long before we had seen their tents, and as we approached close enough for them to see the ship clearly, they wondered who we might be. Old Ankjem said that we were not Americans, for he had seen American ships, which did not look like that. Russian ships were also different; they had lots of smoke. Perhaps the people on board were "Kailak," the Germans with whom the Russians at Kolyma had scared them. No, Gregory claimed that the ship could not belong to Kailak, because the Russians had told that the Kailak ships were black, white, and red, while this ship was all white. But whether we were Kailak or not, we most likely had tobacco, and therefore they waved to us with the skin of a white fox and the women called out, "Bring us tobacco, bring us tobacco!" Poor old Ankjem wept when we continued along the coast past their tents, but great was the rejoicing when we turned around and stopped in the ice right off their tents. The two days that passed before the ice was strong enough for us to dare go ashore must have been very long ones for the tobaccoless Chukchi.

Many months later I was told that the Chukchi were by no means certain that we were not Kailak or other evil people. When the first three men from *Maud* went ashore, they looked carefully to see if they carried guns. When they saw that they did not, three Chukchi left their tents, also unarmed, and went down to meet the strangers. They were much relieved when they saw the friendly faces of Roald Amundsen and his two companions. Men who looked like that could not be Kailak. When I later told them that we were neither Americans, Russians, nor Germans, they were very dubious about it, for how could there be so many different people?

Among the Tundra People

As soon as I could make myself somewhat understood, I tried to find out what the Chukchi knew about the World War. As we had left civilization in July 1918, I was anxious to learn when the war had ended, but as late as the winter of 1919/20 many Chukchi lived in happy ignorance of the fact that the world had been at war since 1914. A few knew that the Russians and the Americans were fighting the Kailak, and that this was the reason why tobacco had been very scarce during the years; but no one knew if there now was peace.

Not until later when I met the Lamut did I get an answer to some of my questions. The Russians had told them that the war ended the winter of 1918/19, and that the Kailak had lost. The reason for the war was: The Germans wanted to trade with the Chukchi and the Lamut, but the Russians and the Americans who had traded with them for many years refused to permit them to do so!

A more involved and fantastic account of the events of the war and the events in Russia was given me by a Lamut, Kjemeng, who had returned from Yakutsk in the spring of 1919. Kjemeng told that the Germans were very strong, that they had beaten the Americans but were finally beaten by the Russians. While the Russians were still fighting the Kailak, the Russian czar, the "Sun-chief" to the Chukchi and Lamut, had suddenly and mysteriously disappeared from his tent. The governors from all Russian provinces gathered to discuss what to do. They searched all over in vain, but the next year, 1918, the "Sun-chief" returned. He had flown up to the sun (Kjemeng flapped his arms like wings) to ask what he should do with the Germans, and the sun had told him to kill them all. On his return he ordered this to be done, and now, Kjemeng asserted, there were only women and children left of the Kailak. The "Sun-chief" had himself fought with the German "Sun-chief," whom Kjemeng indicated by holding his fingers crossed over his

head. The fight had been very hard, and the German chief had survived being put into earth and water, but at last he had given in and he and all his sons had been killed.

Kjemeng asked me if it were true, as the Russians had told him, that the Kailak women bear a tremendous number of children and that they eat people. Kjemeng also had marvelous things to tell about the wonderful buildings in Yakutsk, the horses, carriages, automobiles, and wireless. He asked me if we had horses that could fly in the air. The Russians had some — he had not seen any but he had seen a picture of a horse with wings!

We who had come to Ayon were the subjects of conversation and gossip for a long time. It was said that after all we were not nice people but Kailak, and that I had joined the Chukchi to become acquainted with the country and the people in order to learn who had the largest reindeer herds and the greatest number of fox skins, and next summer we would return with many Kailak ships, kill all the Chukchi, and steal their reindeer. A few of the Chukchi took the gossip very seriously and said they would not dare to move to the coast next summer, and one of them declared he would examine all my boxes. At last Gregory became annoyed and tried to find out who was spreading these stories. He threatened to take this person to Panteleikha and turn him over to the Russian authorities, because no one could call an innocent man "Kailak," and get away with it. Then, of course, no one admitted he had ever repeated a rumor. They were so good, so good; it was a Lamut far, far away who had started all this gossip. Later on, after the Chukchi had been to Panteleikha and had heard how much help all travelers along the coast were receiving from *Maud*, there was no end to the praise showered upon us.

Among the Chukchi gossip travels from tent to tent. There is a grapevine by which news spreads fast but in a decidedly unreliable manner. A few true stories reached us,

Among the Tundra People

however. We learned that besides *Maud* two other ships were icebound on the coast, a small motor boat by Cape North* (Yrkaipij) and a big Russian vessel at Cape Dezhnev (East Cape). Furthermore, we were told that a schooner, *Belvedere*, was crushed in the ice that fall, but without loss of life, and that there was a great deal of sickness along the American side of the Bering Sea, where in many families every member had died (this was the winter in which the influenza reached northern Alaska).

When I could pick up so many true tales which had traveled from tent to tent from Bering Strait to Kolyma, it is probable that true tales that would have interested me less also spread. I am thinking of stories about marriages, births, and deaths, or about disease among the reindeer or success in trapping foxes. However, I am sure that any number of fantastic rumors and any amount of silly gossip also are passed along.

If a man has a piece of news, he repeats it in detail to every stranger, and those who hear it for the tenth time look just as interested as they did the first time. The stranger who wishes to spend a winter amongst them must bring his best manners and prepare himself with unlimited patience.

*Yrkaipij is a native name of unknown antiquity. Cape North and East Cape are names applied (obviously) by English-speaking explorers, whaler, and traders. Mys Shmidta and Mys Dezhneva are the names applied by the Soviet Union. The final "a" in Russian is equivalent to "'s" in English. Mys Shmidta literally means Shmidt's Cape.

TRADE, LAW, AND LOVE

The Chukchi listen to stories about what happens beyond their horizon but they pay only half-hearted attention to accounts of distant war, disease, or starvation. They carry on endless conversations about rumors relating to such vital matters as the prospects of trading for tea and tobacco. They are enthusiastic traders and take every opportunity to barter with neighboring natives and with the Russians.

Quite an amount of bartering goes on amongst themselves. A man who owns a large reindeer herd may buy from some Russian trader more tobacco, matches, knives, or axes than he needs and may sell them to his neighbors for fox or squirrel skins or a mammoth tusk. A poor neighbor may prefer reindeer in exchange for his fur, and for a fine fox pelt the price is usually two deer. Often the poor neighbor gains by letting the rich man have his furs without agreeing upon a price, for then, whenever the rich man's herd is nearby, he may be permitted to slaughter the deer he needs for household use. It is mainly sleds and reindeer, however, which are exchanged. A fine driving sled is traded for two trained reindeer, a poorer sled for one. A fast reindeer which has won many races is worth four or five ordinary

Among the Tundra People

ones, perhaps a doe, two young, and two old, large bucks. A well built breeding buck may be equally expensive.

These tradings may be reversed again after several months. Gregory's oldest son, Mitry, bought a good winter sled from a neighbor, Daiaantoa, and paid for it with two reindeer, one driving reindeer and a two-year-old buck. The latter, however, got his rope tangled around his neck and was strangled as Daiaantoa took him off. Three months later when Mitry visited Daiaantao, he returned with his former driving reindeer tied to the back of an old borrowed sled. Daiaantoa was dissatisfied with the deer, which was not as good as he had expected, and he demanded his sled back and the trade made over again. Mitry was the loser, because he got no compensation for the young buck that had been strangled. Gregory got mad and worked himself into a frenzy, yelling that he was going to make that so-and-so crook Daiaantoa come across, but he cooled off and nothing happened.

The Reindeer Chukchi are far from being independent of the sea, and a lively trading goes on with the Coast Chukchi, the Atta-Kauradlingen. Seal oil is needed for lamps; skin of small seals for waterproof boots and bags; hide from large seals for soles, straps and thongs; walrus or large seal hides for harness, ropes, reins, lassos, and many other articles. They rely so much upon the sea that perhaps in the past all Chukchi lived by the coast, and only in more recent times have some of them acquired reindeer by buying or stealing.

The Reindeer Chukchi obtain some of their necessities when they spend their summers at the coast. They often kill enough small seals to secure a supply of seal oil for the winter, but they rarely kill any big seals or walrus, and must buy the hides they need from the Coast Chukchi. Some bartering goes on in summer, but only the Chukchi living around Chaun Bay benefit from this. The others live too far away, and the main trading is done in winter.

The Coast Chukchi, however, do not travel inland themselves with their goods, probably because the Reindeer Chukchi's principal means of payment, the reindeer, are not easily transported on a dog sled. The Reindeer Chukchi living on the tundra to the south of the Coast Chukchi therefore act as middlemen. In summer these live on the coast between the villages of the Coast Chukchi, and some of the more enterprising of these "Kauradlingen" buy seal oil, seal hides, walrus hides and thongs, and give reindeer skins and meat in payment. In the fall they travel westward, with wife and children and small herds of reindeer, traveling slowly and making many and long stops. Not until the middle of January do they reach the Reindeer Chukchi that I lived with. The price for a large sealskin has then risen to one reindeer, and a long strap of walrus hide brings the same price. These Chukchi traders also carry other articles. From the Russian trading posts on the coast they obtain tobacco, tea, knives, rifles, and ammunition, which they trade for reindeer or furs. They act either as agents for the Russian dealers or as independent merchants. The price for a rifle with one hundred rounds of ammunition used to be the furs of three white foxes, but during the winter I was there it was five or six foxes or seven or eight reindeer. That winter tea and tobacco were so scarce that the Chukchi gladly traded a perfect white fox for an ounce of tea or a fistfull of pipe tobacco.

The Reindeer Chukchi and these traders trust each other completely. The trading is transacted in the simplest manner, and credit is given or received without any form of written agreement. The result is that business between them is never finished; either the one or the other is in debt, and the close of a deal is always postponed to "jaureнна," next year.

For instance, one man had sold ten reindeer to a "Kauradling," and the next year he was to receive one rifle with one

Among the Tundra People

hundred and twenty rounds of ammunition and two or three large seal hides. When the trader arrived, he had the rifle and the ammunition, but for some reason he had been unable to obtain the seal hides. Tobacco or tea would have been a welcome substitute, but the supply had long before been exhausted. The settlement of the deal had to wait until "jaureнна."

Year by year, quite a few reindeer are sold by the rich owners in the woods to the west to these poor but enterprising reindeer owners of the tundra, who again supply the Coast Chukchi with reindeer meat and reindeer skins. This trade is important to the Coast Chukchi, who need the skins for clothing and sleeping tents and the meat as a valuable reserve when hunting fails.

The Lamut live to a still greater extent upon the reindeer of the southwestern Chukchi. The Lamut whom I met were all poor and did not have herds big enough for their own use, but as they were handier and far more industrious than the Chukchi, they obtained reindeer for slaughter in exchange for products or by working for the Chukchi. In the middle of the winter the Lamut take trips to the Little Anyui River to cut wood for snowshoes, which they finish and sell to the Chukchi for the price of a young reindeer per pair. The Lamut are clever blacksmiths; from an old file they make a useful knife that is worth a reindeer. The Lamut also trade their reindeer with advantage. Their deer are different from those of the Chukchi in having longer legs, longer necks, and narrower heads. Thanks to their long legs they are swifter, and one Lamut reindeer may be paid for by three to five of the Chukchi reindeer.

When I talk of one reindeer as a sort of coin, or means of exchange, I mean a reindeer buck. A doe is far more valuable, and is counted as two reindeer. A "kill," that is, a reindeer that the owner himself has slaughtered, is a much smaller pay, the least that the Chukchi know, and is given,



Village of the Coastal Chukchi, March or April, 1921. The reindeer herders, the Chauchu, have the advantage of living among trees in the winter, so their villages, while just as scattered as this one, have some shelter from the wind and in our eyes look more hospitable.

for instance, for repairing a kettle. To the buyer it may, of course, make a difference whether he receives a dead or a live animal, but to the seller it should be immaterial whether he parts with a live deer or kills the deer before parting with it. However, the Chukchi claim that this is not so. They say that they hate to part with their reindeer, if they are to be driven far away. It is all right to trade reindeer with their neighbors, but it is against their customs to give reindeer in trade to people living far away. I pointed out that every year they sold many reindeer to the Chukchi on the tundra, who drove the reindeer clear to Cape North or to Kolyutschin Bay near Bering Strait. Yes, so they did; because they had to buy certain things from the Coast Chukchi, but they always did it with a heavy heart. A “kill” doesn’t matter, however, for then they take the reindeer’s life themselves, and that is that.

Among the Tundra People

The Lamut get many "kills" without actually buying them. They do all sorts of small jobs; the men make pipe-heads, put handles on knives or axes, or repair kettles, and the Lamut women scrape and prepare reindeer skins and make bead and fur embroideries or tassels for the Chukchi women. When the Chukchi kill a number of reindeer at some festivity, their helpful Lamut neighbors appear and get one of the slaughtered deer.

The Chukchi use no form of currency in their trading among themselves and with the Lamut. They had a few ruble bills, but most of them did not understand their value, and did not know whether they had a one or a one-hundred bill. Their best knowledge was that one bill was "weak," and another bill was "strong." Only during the yearly market at Panteleikha did it happen that they received money for their goods, or that they paid with bills.

The market at Panteleikha takes place at the end of March or the beginning of April, and here the Chukchi sell most of their furs. I was given the most vivid descriptions of this market. There were flocks of Chukchi, Lamut, Yakut, and Tungu; and Russian traders came from all the settlements along the Kolyma River and from all the trading posts on the coast. They brought huge chests of tobacco and tea, and great supplies of teakettles, knives, axes, saws, and other tools. The Coast Chukchi came with their dog teams all the way from Bering Strait, bringing hides and straps, and there was a mad confusion of tongues. To the Chukchi the houses of the Russians in Panteleikha were masterpieces of architecture; their furnishings and modes of living were the height of luxury. Naturally I had to be present at such an occasion, to see the colorful market life and to meet those who, to the Chukchi, represented civilization.

I wanted to take my magnetic instruments with me in order to extend my observations as far as the Kolyma River, but Gregory was opposed to this, because the instruments

were heavy and the road long, and after the deep snow of the winter the driving reindeer were in poor condition. After innumerable decisions and changes, it was agreed that Gregory, Kaankalj, and I should each drive our own sleds with two reindeer, and that the instruments should go on a fourth sled, also pulled by two reindeer.

The Chukchi go to market in two different ways. Some leave with a small tent or only a sleeping tent. They take along six to eight sleds with furs, clothing, meat, and cooking pots, and a few extra reindeer for slaughtering if prices are fair. Often the oldest members of the family travel to market, while the young ones stay home to drive the reindeer herds to the north.

But most of the people going to market travel alone, starting out on one of their light sleds, and sleeping if necessary under the open sky. If the reindeer have been well fed and driving conditions are favorable, they can make the distance from Makju-oam to Panteleikha — about one hundred and sixty kilometers in one day; but then they drive from early morning until late at night and at a full gallop wherever there is a down-slope. The winter I was there, many drove to Panteleikha in two days, but most of them took three. On the way home many reindeer dropped, and several travelers reached home on foot. One who goes in this simple, easy manner trusts his furs and calfskins to a friend or a relative who is traveling to market with tent and many sleds, and who lives with him during the market.

The three of us took it easy and used five days to reach Panteleikha. On the return trip a week later, the reindeer pulling my sled with my instruments became exhausted and could not keep the pace that Gregory and Kaankalj wished. No Chukchi likes to be away from his tent for more than two or three days, and Gregory and Kaankalj were no exceptions; so halfway home it was arranged that I should

Among the Tundra People

stop with an acquaintance and wait for some of those who followed with tent and full baggage and were traveling slowly. I did so, and continued home with an old witch of a woman, who took care of me as well as she could, but who scolded and nagged whenever I misunderstood her or did something wrong. This way the visit to market took me all of four weeks, while many of our neighbors made it in eight or ten days.

On the fifth night of our trip to the market, we reached a large Chukchi camp close to Panteleikha. Many of our winter neighbors who had traveled with tents were gathered there, so that by now there were six large Chukchi tents, four separate sleeping tents, and one Lamut tent. Some had arrived several days earlier, and all were waiting for the market to open. We stayed as guests and drove to Panteleikha the next day. The camp was located near a hill, from the top of which we had a splendid view. Behind us was the country that we had crossed: low, barren mountains and wooded valleys. Before us lay a huge plain that stretched farther to the north and west than our eyes could reach. Here and there gleamed the frozen and snow-covered Kolyma River as it curved and branched like white ribbons among wooded islands, and far to the north we had a glimpse of the sea. To the southwest we saw the high mountains on the other side of the plain.

The town of Panteleikha, with its many stately homes, should have been below the hill where we were standing, near a small river, but I searched for it in vain. We continued down toward the river, where the woods were tall and stately, where the brooks had dug deep furrows into the clay and sand hills, and where there were worlds of rabbit and ptarmigan tracks. But no town was to be seen. We stopped, tied our reindeer to a couple of trees, continued along a narrow path, and, as we reached the last hill crest, we saw in front of us a little group of gray, flat-roofed log

cabins: Panteleikha. Then at last I realized that I was in Siberia, as I knew it from photographs and descriptions.

In Panteleikha there were thirty or forty cabins scattered about. Two groups were surrounded by palisades and looked like forts. All the houses were of the type familiar from pictures of northern Siberia: square log cabins with flat roofs, grayed by weather and wind.

All the cabins are alike. The door is made with great care, covered with reindeer skin on the inside and well fitted. Usually it leads into a large storage room where meat, fish, wood, and tools are kept, and from which one enters the only proper room of the house, which serves as kitchen, living room, and bedroom. In one corner is a large stone fireplace, where all day long a fire is kept burning with the flames licking the upright pieces of wood. Toward evening the fire is reduced to coals, and at night the chimney is covered so that the draft will not come down. Cooking is done on coals scraped forward from the fire. By the fireplace, cooking pots and teakettles are placed on a small bench, and dishes, knives, forks, and spoons are neatly arranged on a small shelf. The furnishings are simple: a table, a couple of chairs, and a few benches along the walls. There are no beds. One sleeps on the floor or on the benches, which at night are covered with skins.

Two or three small windows give light; all are double and cannot be opened. The outside window is often not of glass, but is made of a huge block of ice that is frozen into the casement. You cannot see out through such a window, but a surprising amount of light shines through eight or ten centimeters of ice. Religious pictures and ikons are found in every home. The Russian houses are altogether simple, but clean and neat. The floor is scrubbed, the oilcloth on the table is shining, and dishes are scrupulously clean, and the kettles are freshly polished.

Among the Tundra People

Only one house in Panteleikha was different from the rest. This was the half-finished church with tower and golden spire. Perhaps it has never been finished.

About ten or twelve families lived in Panteleikha in winter. In summer, most of these left to go fishing at the mouth of the Kolyma River or in other rivers to the west. The other houses in town belonged to traders whose homes were farther up the river, but who spent a week or two in Panteleikha when the yearly market took place. In many of these homes there were no glass windows at all, only ice windows. I now realize why the Chukchi call glass "tin tin," which means ice. Between the houses were found the stores, which were smaller and had no windows, but got all their light through the door. Finally, there were cow sheds, which also were log buildings covered and caulked with clay.

The inhabitants of Panteleikha kept cows, small, shaggy, black or dark brown cows, with short, strong necks, broad heads, and small horns. In appearance they seem to be more closely related to the musk-ox than to our cattle. They give plenty of milk, and in the fall they are fat, but in spring they are all extremely skinny. During winter the food supply is so scanty that the cows are barely kept alive. There were also a few horses, and a couple of the rich traders had herds of reindeer.

Besides their primitive cattle farming, the inhabitants do some hunting, and they catch foxes, rabbits, and ptarmigans in traps. Ptarmigans are plentiful. When you come out early in the morning, you see them all around the house like pigeons in a park. But most important of all is the fishing in summer and fall, when the sea and rivers are teeming with fish — cod, herring, trout, salmon, and sturgeon.

When I arrived at Panteleikha, starvation which harassed many countries at war threatened to reach this corner of the world. For several years the inhabitants on the Kolyma River had obtained no flour, and what seemed worse, the

trading goods needed for bartering with Chukchi, Lamut, or Yakut had been lacking or had arrived in far too scant amounts. Some of the traders told me, however, that if the Russians living there should starve, it would be due to their own laziness. In summer there is an abundance of grass, and everyone could keep as many cows as he needed, if he would only gather hay enough to take them through the long winter. The winter is not as long as one would think, for by March the cows can be let outdoors, where they dig through the snow, which may be so deep that only the backs of the cattle are seen. They live high on grass which has dried on the root. In the fall, fish can be caught in unlimited quantities, but many of the men prefer to sit inside and play cards and let the fish pass uncaught by their door. Perhaps the judgment passed on these people is too harsh; I have not seen enough of them to form my own opinion, but I had an opportunity to take a trip along the Kolyma River and to meet many families, and it made no good impression to find the men sitting at home with pale faces.

The traders living along the Kolyma are, as a whole, fine men. Fewer have intermarried with the natives than have many of the "Russians." They are well to do, friendly, and helpful, but they live like the rest, hunting and fishing. When the time for the market at Panteleikha draws near, they all drive over on their dog sleds. Every night new sleds arrive. Some come from the Russian trading posts farther east near the Bering Strait where they have fetched goods. Some of the owners of these trading posts arrive personally, others send a few Coast Chukchi with their sleds, while other Coast Chukchi come as independent traders and bring their own goods and whatever else they have bartered for.

When I arrived at Panteleikha on the thirtieth of March, I was received most cordially by one of the traders, who took it for granted that I should stay with him while the

Among the Tundra People

market lasted. I slept in his house on a huge bearskin, with a cover made from the summer fur of white fox. Such covers, which the Russians use for their winter travels, are light and warm but not very durable. In the corner opposite to mine lay a newborn calf, which was too precious to be kept in the cow shed.

The trader insisted that I should discard my Chukchi underclothing of soft reindeer calfskin and accept heavy woolen underwear from him. Being polite, I did so, but the wool scratched and itched after I had used soft furs for months, and my sufferings were greatly augmented because the otherwise very small population of vermin got suddenly out of control. When using underclothing of reindeer fur, it is easy in winter to get rid of vermin. They stay in the fur, and all you have to do is to put the clothing out at night, let the parasites freeze to death, and beat them off in the morning; but this procedure does not work if you wear woollens.

The market was to open in a few days; a number of traders had arrived and others were on the way. Dog sleds with teams of eight to twelve dogs pulled in, while others left to fetch slaughtered reindeer from the Chukchi. These had their camps scattered around at fair distances from town, but every day small groups arrived to ask when market would open. As far as I could make out, a message was expected from a Russian official at Srednekolym'sk, a town of about eight hundred people farther up the Kolyma River. When a message failed to arrive, the traders decided to open the market — after lengthy discussion with representatives of the government about prices. The price for a “perfect” white fox was settled at four pounds of tobacco or four hundred rubles, but this price was nominal since very little tobacco was available and no one, not even the Chukchi, would accept money because the value of the ruble was too uncertain. One way for the trader to get around the settled

price was to declare all fur "imperfect," and to pay as little as would be accepted.

While waiting for the market to open, there was practically no trading going on. This must have been due to orders from the officials or to an agreement among the traders, for time and again I saw tobacco-hungry Chukchi being turned down. Market opened on April 3, but the main trading day was on Sunday, April 4.

I did not see such a gay life as the Chukchi had described. There were no Yakut, only Chukchi and Lamut; of the former perhaps a hundred and fifty or two hundred, of the latter thirty or forty, while the number of traders with helpers probably reached fifty.

A few Chukchi had brought their bags of furs to town the evening before the opening day and had stayed overnight on the floor in the house of some acquaintance, or had spent the night playing cards with the Russians, of course for money. Most arrived in the morning, pulling their sleds themselves, having left their reindeer far away from the houses because they did not dare bring them close to the dogs, although these were all tied up. Many of the sleds were only light driving sleds, but a few were clumsy work sleds loaded with skins of reindeer calves. In between came small groups of Lamut with their bags across their shoulders.

Interest at first centered around the Chukchi women, whose sleds contained food, which was particularly attractive during the hard times that were now reigning in Panteleikha. The women had brought Chukchi pemmican (prarem), reindeer marrow, fat, and tongues, and around them gathered small groups of Russian women, who had been living on scant rations and now hoped to barter some delicacies for a pinch of tea, a handful of tobacco, a box of matches, a plate or a cup. Trading was brisk, although one party usually did not understand a single word the other party said. Besides the food, the Chukchi women had brought leg-skins of

Among the Tundra People

reindeer that the Russian housewife needed for making shoes and trousers, and reindeer sinews that usually were exchanged for needles.

The Russian traders stayed in their stores and accepted goods there. These stores were without furnishings, except for a platform built along the back wall where the merchant stood. On one side he had his own bartering articles, and on the other side he threw those received in exchange onto a big pile. A few had counters adorned by scales which were occasionally used for weighing a mammoth tusk, an undertaking quite beyond the comprehension of the Chukchi. Trading was done without many words. A Chukchi would enter and present a bundle of fox or squirrel furs, or whatever he had. "What do you need?" the trader asked, and according to the answer he would hand the Chukchi tea, tobacco, matches, knives, or ammunition, without further talk. Most Russian traders, however, speak the Chukchi language very well, and some speak it like natives.

The stores were crowded with people, since many were curious to learn the prices paid at different places before parting with their own goods. Outside, meanwhile, the traders who had no stores — both Russians and Coast Chukchi — had taken their positions by their dog sleds, and around these were gathered groups of customers and onlookers.

The small traders, the inhabitants of Panteleikha, were circulating among the Chukchi, making use of the opportunity to barter squirrel skins, reindeer leg skins, a pair of good boots, or whatever was particularly wanted, for a water dipper or a little tea. But to the Chukchi this was not only the big market day, but the day when they met friends and acquaintances and could learn news and talk gossip.

In the year of my visit, the exchange of goods was smaller than usual, partly because the amounts of tea and tobacco that had arrived earlier at Kolyma had already been

sold to the nearby Chukchi, who had practically given away their furs, and partly because the supply of other goods for exchange was so scant that, in spite of high prices, it was soon exhausted. The gathering of the Chukchi and Lamut was also smaller than usual because the rumor had spread long beforehand that the stores of the traders at Panteleikha would be empty. Nevertheless, several thousand reindeer calfskins, hundreds of squirrel and ermine skins, numerous pieces of mammoth tusks, and five or six hundred fox furs of different kinds changed hands. The fox furs are, without doubt, the most important, and in good years thousands are traded.

Most traders appeared to have their steady customers who were accustomed to bringing them all their furs. This year several of the traders had no goods for exchange, but nevertheless they received considerable quantities of furs from their old customers against promise of later payments. Naturally, their customers also sold some of their furs to other traders for cash, in order to obtain at least a little tea and tobacco.

Another result of hard times was the absence of races or sport events. Ordinarily, the Russians amuse themselves by arranging reindeer races, wrestling, and jumping matches, for which they put up prizes, but this year all such events were omitted. In the evenings many Chukchi were in town, and a few times they started wrestling and jumping as they do at home, but without pep, since no one encouraged them, and since there were no prizes. A couple of days after the market there was a race between two dog teams belonging to Russian traders, over a trail about sixty kilometers long. The faster team covered the distance in exactly three hours. The prize was five white fox furs.

Hard times were also indicated by the great demand for meat. The Russians themselves lacked food, and their dogs, upon whom their very existence depended, were starving.

Among the Tundra People

For this reason they visited all the Chukchi camps around town, trying to buy reindeer, and they asked every Chukchi who came to town if he could not spare a reindeer or two. In spite of the low prices they paid, a pound of tobacco for a well sized reindeer, they were able to buy quite a few. No wonder that the Chukchi later on said that if they had not sold reindeer at that time, the Russians and their dogs would have starved to death.

During the market a Russian trader bought about four hundred reindeer from two rich Chukchi. The animals were to be driven toward East Cape the next summer, where the Russian had his trading post. He paid in cash with tobacco, tea, knives, axes, saws, rifles, and ammunition in such generous quantities that the two sellers would be able to buy back more reindeer from their neighbors. The trader, however, had great difficulty in making the Chukchi understand that the deal was for two hundred reindeer from each man, since it was not easy for them to grasp such a large number.

This deal later on became the subject of endless talk among the Chukchi. Everyone denounced the two who had sold reindeer to be driven far, far away, and declared that none would buy as much as a knife from them. One woman agreed to buy some tea and a pound of tobacco for three reindeer, but her son interfered. The story of the deal was discussed over and over, and in course of time it became more and more mixed up with imagination and gossip, all of which went to prove what low-down people the two sellers were. However, I am inclined to believe that when the Chukchi tired of the tales or found another subject for gossiping, they would be glad to sell their reindeer to the two sinners, since, after all, tea and tobacco are precious.

At Panteleikha it was my privilege to meet one of the chiefs of the Chukchi (the "errem"). A few generations ago the Chukchi, according to their story, had no chiefs, and

then it often happened that they used knives or spears when quarreling and that someone was seriously wounded or killed. In order to prevent such crimes, the Russians appointed two chiefs (most likely over the Reindeer Chukchi nearest the Kolyma River), and since then bloody fights have been rare. The chiefs are appointed by the oldest among the Chukchi, and are approved by the Russian government, but carry no sign of their very limited authority. They are only commissioners to whom the Chukchi bring their quarrels and who may turn the parties over to the Russian authorities if no settlement can be reached. The chiefs also act as middlemen in disputes between Chukchi and Russians; therefore, the honor of the appointment is usually bestowed upon someone who lives near the Kolyma River. They are appointed for life but when a chief feels old, he retires voluntarily. One of the two chiefs had just died, and his successor had not yet been appointed, so I met only the one who was left.

He did not have the appearance of a chief, and my impression of him was not improved by the fact that he was hard of hearing and stuttered, but no doubt he was an honorable man. He was not burdened with too much official business. The previous winter had passed without his having to take action on a single occasion. The Chukchi, now as always, settled their little quarrels among themselves, and in the most primitive manner: they fought, but the fights were seldom bloody.

An enraged Chukchi facing his opponent screams his accusations at him, calls him the vilest names, yells at the top of his voice until his face is purple, and jerks his arms so that he nearly tears them out of their sockets. If the other party admits that he is in the wrong, he stands perfectly still, with his head bent, and lets the storm rage, without saying a word. But if he believes that he is right, he yells just as loud as his accuser, calls him worse names, and jerks arms and body more violently. After scolding and

Among the Tundra People

screaming and yelling at each other for ten, fifteen minutes, they finally rush at one another, seize arms or neckband and try to throw each other as when wrestling, but now they really mean it and act in a red rage. The one who throws his opponent to the ground rubs his face with snow, beats his head, and kicks his shins. The one who is licked gives in, no matter how evident his right is. The law of the fist rules.

Oaeriv had bought a rifle and some ammunition from Kaankalj's son-in-law, Oomje; that is, he had received the rifle and several rounds of ammunition, but there was no agreement as to the price or time for payment. A year later Oomje thought that it was in order to go to Oaeriv and demand payment, but he added that Oaeriv would probably try to get out of paying, so they would have to fight. "Fight?" I asked, "you surely must be paid for your rifle, even though he may lick you." "No," he said, "if Oaeriv licks me, I won't get any payment." A couple of days later he left, and when he returned I asked how he came out. Yes, he had found Oaeriv home alone, but before he had gathered courage to come to the point, Oaeriv had suggested some friendly wrestling; he might have had an idea of what was coming and before they had a real quarrel he would be sure he could manage Oomje. "Well, who was the strongest?" I asked. Oomje's face beamed: "I was." But Oomje may have to repeat his performance to get paid.

A year earlier the same Oomje had been less lucky. An older man, Akam, who had something to settle with Kaankalj and her family, had visited Kaankalj and had simply helped himself to Oomje's sled. When Oomje came home, he got mad and drove straight to Akam to demand his sled. Akam refused, so they fought and Oomje was thoroughly licked, and had to go home without his sled.

It seldom happens that young people quarrel with older people or start a fight with them. If an older man scolds a younger one, the latter usually accepts the accusations

without a word, even though they may be quite unjust, and if a younger man attacks an older, others interfere. The Chukchi mentioned three or four young men who did not respect the dignity of age and who, therefore, were really bad. One of these, a Lamut boy, Piridaal, had a fight with Gregory. Gregory had bought a pair of snowshoes from Piridaal for a reindeer. Oomje joined us, and together the four of us drove to the reindeer herd to pick the deer. Gregory pointed to a two-year-old buck and told Piridaal that he could have that one. "That little trash of a deer?" cried Piridaal. Gregory lost his temper, because no one could call one of his reindeer "trash." He gave Piridaal a real piece of his mind, but Piridaal talked back and yelled and screamed until they rushed at each other. Gregory was thrown, but before Piridaal could do him any harm Oomje interfered. Piridaal, who was barely twenty, had no business fighting Gregory, who was twice his age. If there had to be a fight, Piridaal would have to settle it with him, Oomje. Piridaal had to submit, with the outcome that he was beautifully licked and had to take the reindeer that he had called trash.

Fights are quite common, and are usually due to disagreements in trade, but sometimes a petty thief gets a beating. That winter I had to keep an eye on my modest supply of tobacco. Even the best were tempted to help themselves, and the comment on this type of stealing was mostly, "Poor man, he lacked tobacco." Just before we reached our winter quarters and tented among many Chukchi, two plugs of tobacco were stolen from me. In the evening I had taken six plugs out of my box and had hidden them in Gregory's baby sled, where I thought no one would look for tobacco, but the next morning there were only four. Gregory immediately wanted to catch the thief. A trip around the camp assured him that no one had left since the theft, so the thief must be among us. He pondered for a

Among the Tundra People

while, but then it grew upon him that this was not a petty thieving: it was a matter of a lot of tobacco, two big, big plugs, nearly half a pound. He made his decision. He stalked out to the middle of the camp ground and accused everyone. Red in the face, he yelled so that he could be heard for miles, called the whole group the worst thieves and trash, and promised to beat every one of them to pulp if the thief did not appear with the tobacco. The effect of his thunder was remarkable; Geaoljin's wife handed me the two missing plugs. I did nothing further about the matter, but that night, when I was visiting our neighbors, Geaoljin beat his screaming wife so thoroughly that everyone at camp was kept awake into the late hours. Geaoljin had a purpose: he wanted to show that he had been innocent of the theft, and to make sure that my tobacco pouch would not be closed to him. When all was over, there were no ill feelings left anywhere.

The Chukchi know their reindeer so well that fights over ownership never occur. Actual theft of reindeer is rare, but now and again it happens when reindeer stray into another herd that the owner of that herd denies that they are there. If it is a question of a few deer, and if the man is poor and old, the Chukchi let him keep them. In other cases they simply pick their own reindeer out of the herd and let it go at that.

When the Chukchi settle their differences, they seldom hurt each other seriously. I heard of only one instance in which one man was permanently injured in a fight. Enlakotet, who was known as a great fighter, quarreled with Geaoljin about some fox furs, and they started a fight. Geaoljin was big and strong, so he held his own against Enlakotet for a long while, but at last Enlakotet lost his temper completely, seized a heavy tent pole, and went after Geaoljin with it. Before anyone could interfere, Geaoljin had received such a blow across his back that blood gushed from his nose and

mouth, and he was ill for a long time afterwards. It never occurred to anyone to report Enlakotet to the authorities.

The social organization of the Chukchi is practically lacking in spite of the fact that they have chiefs and that the Russians after a fashion try to uphold law and order. "Might is right" still rules among the Chukchi, but only to a certain chivalrous degree. No young man must lift hand against an old man, no strong man must fight one who is weak or ill, and no man must beat any woman — except his wife. When the big, strong Aigeurgin started to give the small, frail Epaetok a beating, Gregory and others interfered at once, because it was a shame to beat a man who was as weak as a woman.

In spite of the lack of organization, the Chukchi are not lawless; they are governed by their unwritten moral code, which first of all demands reverence and obedience to older and more experienced people, and kindness to the weak or poor. But their code leaves ample opportunity for those who love a fight to try licking their friends. When the fight is over and the matter is settled, the winner lights his pipe and hands it to his opponent, and all is well.

Among the Chukchi, women are considered equal to men. It is true that a man occasionally beats his wife, but it also happens that a woman uses the equivalent of the rolling pin or that she otherwise makes life miserable for her husband. The work of the women is different, but they are not thought of as inferior. This is evident when you see how a man asks his wife's advice in all matters of trade, how the wife always keeps the supply of tobacco and tea, and how the women always accompany the men when visiting the neighbors. But most of all the equality is proved by the two types of marriage found among the Chukchi. Either the girl moves to the boy's tent and joins his family, or the boy moves to the girl's tent and becomes one of her family.

Among the Tundra People

Matches are usually arranged by the parents while the children are small. One of Gregory's little girls of six or seven was promised to a boy of eight or ten years, and in this case the ages were fitting, but Kaankalj's youngest daughter, Gemangaut, who was about thirteen, was engaged to her seven- or eight-year-old second cousin, Angkaue.

If the girl moves to her future husband's tent, his father pays the girl's parents a small compensation. The price of a girl is not high among the Chukchi, usually only ten or twelve reindeer, occasionally up to thirty. If the groom is a relative, nothing is paid. The amount is paid gradually, a few reindeer each year, because one never knows if the engagement will be broken because of disagreement between the parents. In such a case, the father of the bride keeps the part of the price that he has received. Even after the bride has moved to her husband's tent and lived there many years, the marriage may be dissolved without formalities. If the young people cannot agree, which seldom happens, the girl is sent back to her parents. More often the in-laws cannot stand the daughter-in-law; but in no case are her parents under obligation to return the reindeer that they have received for her. That, I was told, is the reason why the price of a bride is so low.

The bride moves to her future husband's tent while quite young, usually about twelve or thirteen; that is, when she can be considered expert in sewing and housekeeping, and can be of help and use in her husband's tent. She brings no dowry in the form of reindeer, but she brings her own clothes and finery, her own sled and driving reindeer, and a lasso for her husband. The moving of the bride to the new tent is accompanied by a number of ceremonies, the most important of which is the transfer from the fire of the home tent to the fire of the husband's tent. The fire is sacred and is the symbol of the home. When the bride moves to her husband's tent, she becomes a member of her husband's

family and loses her right to her home fire, but if she returns from the in-laws she also returns to the home fire.

A man who has only one daughter does not let her leave, and if he has several daughters, he decides while they are still young which one shall always remain in his tent. She will stay to take care of him and his wife when they are old, and will inherit the tent when he dies. If she wishes to marry, the boy must move to her tent. In this case, the boy pays nothing for his wife, but he brings the reindeer that he owns, clothing, sled, driving reindeer and lasso. He must give up his own fire and completely join the girl's family, but if he does not behave decently he is sent home again, and the children stay with the mother.

My host, Gregory, had been married to Kaankalj by moving to her tent. She was a widow and her first husband had moved to her father's tent as a young boy. Kaankalj's oldest daughter will inherit this tent when Kaankalj dies, and her son-in-law, Oomje, has given up his fire and lives in Kaankalj's tent. However, Gregory has his own tent also, standing right next to that of Kaankalj, and his oldest children live there. If there are many guests, he and Kaankalj move over to Gregory's tent, and when Gregory is peeved he moves alone.

Gregory's oldest son, Mitry, now about eighteen or twenty, had earlier been engaged to a granddaughter of old Ankjem, who had moved to Mitry's tent several years before, but she had died from a lung disease. The ten reindeer paid for her were wasted, and Mitry had to look for a new wife. Ankjem also had a young daughter, Naueng, about twenty. Naueng was Ankjem's only daughter and therefore lived in his tent, which she was to inherit when he died. She had been married to a young man, Aigeurgin, and had a little girl by him, a small, smiling, black-eyed baby. But Aigeurgin had quarreled violently with his father-in-law, Ankjem, while both were visiting in Gregory's tent; he had lost his

Among the Tundra People

temper and had threatened the old man with his knife. Gregory had interfered, declaring dramatically that if Aigeurgin wished to kill anyone in his tent he must kill him, Gregory, not Ankjem. Aigeurgin had been brought to his senses, but the affair ended by his being sent away by Ankjem. He was no longer wanted for a son-in-law. Aigeurgin had to move to his brother's tent, while Naueng continued to care for the old folks and her little girl.

It had occurred to Gregory that Naueng would be a suitable wife for Mitry. Gregory and Kaankalj had talked to Ankjem and his wife about it, with the result that when we reached our winter quarters Mitry moved to Ankjem's tent. However, Gregory and Kaankalj both said that the case was far from settled, and it soon appeared that they were right. Old Ankjem was not too easy to get along with; Mitry also had a quarrel with him and was sent home, where he lived the rest of the winter, but even so the matter was not entirely off. The next summer Ankjem would join Gregory when moving toward the coast, and Mitry's chances might improve. Naueng, however, had another suitor, Jeaantaa, a young and very rich man. But he had another wife and his own fire, which he neither could nor would give up. Since Ankjem would not permit Naueng to leave his tent, there was little probability of a marriage between her and Jeaantaa. I heard a great deal of talk and gossip about it all, but never was a word mentioned as to whom Naueng herself preferred — her first husband or one of the two new candidates. Either she did not care or her wishes made no difference in the matter.

Polygamy is common; I met several men who had two wives. All these were well-to-do men who had bought two wives and who owned two tents, so that each wife kept her own house, an arrangement that appeared to be of great importance to the good understanding that I always found between the wives. A few unmarried men are to be found.

They are not all poor, but the ones I met were all considered quarrelsome and apt to pull their knives when fighting.

Unmarried girls and women, sometimes ones who are well to do, are also to be found, whose morals are very free; in fact, they are prostitutes. The married women always had much to criticize about them: they are lazy, always helped themselves to the best food, marrow, tongue, and the fattest pieces, and let their children go uncared for, but the men were more lenient in their opinions.

Usually the married couples get along well and appear to be genuinely fond of each other. The young people tease each other and make up. The old people who have lived together for a generation go together everywhere, since small children and housework no longer keep the wife to the tent. If one becomes ill, the other's care is touching. But, of course, it also occurs that married couples who usually live together like doves once in a while fight like cats and dogs. I never heard a cross word between the young married people living in our tent, Oomje and Na-anj, but Gregory and Kaankalj occasionally had violent clashes.

Once that winter they had left for the neighbors to spend the night. On the road they had quarreled, and Gregory had returned home alone. After a short stay he drove off again, saying that he was going to a Lamut, Nirganga, and might stay overnight. The next morning he came home very early, and a little later Kaankalj arrived; she immediately asked him where he had spent the night. He answered that he had been at Nirganga's, but Kaankalj did not believe him; she knew her Gregory, and accused him of having slept with an older, unmarried girl. For a while they screamed abuses at each other, and then they started fighting, to the entertainment of every person in the camp. Gregory threw Kaankalj down and trounced her. She yelled, scratched and bit, and Gregory could barely manage to hold her down. As soon as he let go, she was on her feet, grabbed a stone or a stick of

Among the Tundra People

wood, and went after him again, or she spit like a cat and called him the most unmentionable names, until he went for her again in a hot rage. When they had kept this up for an hour or more, Kaankalj rushed into the tent and returned brandishing a huge knife, but before she could do any harm, Gregory grabbed it and threw it far away. So far, the onlookers had enjoyed themselves; if the two had trouble that led to a fight, they could fight it out as long as they did not hurt each other. However, when Kaankalj came with the knife, a couple of the women interfered and half dragged and half carried her away, which was not easy, for she was completely beside herself with rage, and was screaming and kicking.

That time her rage was quite justified. The scoundrel Gregory had not been at Nirganga's at all. The latter came visiting that very afternoon, and Kaankalj immediately asked if Gregory had been there the night before. Nirganga did not save the faithless husband by lying, but answered, "No," without hesitation.

It was not strange that Kaankalj was jealous, for she was somewhat withered and faded, while Gregory was still in his prime. But she regretted her anger, poor soul, especially that she had threatened him with the knife. She crawled into my hut in the evening, and sat and wondered if she was growing into an evil woman, since she had grabbed the knife; she had been mad many a time before but had never used a weapon.

The night after this storm Gregory slept in his own tent, and all the next morning he played hurt. During the battle Kaankalj had torn his coat, and now she begged him to let her repair it, but he put up his sourest face, and that was something! He acted the insulted husband until evening, when they made up beautifully, and were just as loving as ever.

The children are treated very well, are hugged and kissed when small, and the grandparents walk around proudly

carrying them across their shoulders. But as soon as they can be useful, they are put to work. They are educated by doing the daily chores, and when they are twelve or thirteen they do the work of grown-ups. The Chukchi do not have many children. Most women do not bear more than two or three babies, and very few have as many as five. I met three pairs of twins, though. A woman gets up three days after the baby is born and starts her usual work, but during the first week she moves around as little as possible and wears a wide leather strap around her hips.

The unmarried or unengaged girls may have very loose morals, but I don't believe much can be said against the morals of the promised girls or the married women. I recall one man who looked very pleased when he told how his young wife had got rid of an unmarried man who had made advances to her. She had taken a stick and had hit the culprit so that the blood poured down his face. Those listening seemed to think that the "wolf" had got what he deserved. The Chukchi consider advances to a wife as an insult to the rights of the husband, even if he has not bought her but has moved to her tent.

Among the Reindeer Chukchi I did not come across a single case in which unfaithfulness was punished, but among the Coast Chukchi I found later a unique form of punishment. If a man learned that his wife had been unfaithful to him, he bit off the tip of her nose! I met several elderly women whose nostrils were very conspicuous because the tips of their noses were lacking. A young man, a well-to-do trader, visited me on board the ship in order to ask my advice in a serious matter: Should he or should he not deprive his wife of part of her beauty? He knew that she had been unfaithful, but he also knew that the white traders with whom he had business considered the biting off of the nose a somewhat tactless form of punishment. Should he risk losing the respect of his own people and be considered a

Among the Tundra People

sissy who could not take care of his own property, or should he risk making himself impossible among the white men? I evaded the question. I don't know the final outcome, but when we left a few months later his wife's nose was still intact.

The Chukchi have another custom that does not exactly agree with our moral code. To explain this, it should first be mentioned that they have an amazing knowledge of their relatives.* Everyone keeps track of his grandparents, uncles, aunts, cousins, and so on, and I was completely confused before they were half through explaining their relationship to one who is introduced as "their father." To a certain extent I could follow these family trees, but again and again I was hopelessly puzzled. How, for instance, could Kaankalj, who had borne only the two daughters living in our tent, also call Uingi's daughter her own? Or why would Haljirgin, the only son and heir of the rich Gatilje, call Teriem's son, Rauteurgin, his brother? This was particularly confusing because I had been told that actually Petki, not Gatilje, was Haljirgin's father. I met many similar inconsistencies and felt completely lost until one day I learned about a custom which explained the mysteries.

When two Chukchi are good friends, they exchange wives. If they visit each other, they sleep with the friend's wife, or if they have been traveling together, or meet at the reindeer herd, they don't return to their own tents but go to their friend's tent. In this way double marriages occur; each man has two wives, and each woman two husbands. Triple marriages may also occur, but in no case must two of the men be brothers. If two of the wives may be sisters, I do not know, but it seems unlikely since brothers are excluded. A man within such a group marriage calls not only his wife's children his own, but also those of his friend. This may

*According to one reviewer, Sverdrup did not fully understand the kinship customs of the Chukchi. Bogoras (see Reading List) discusses them at length.

stand to reason, but when a woman calls another woman's children her own, things become complicated, and likewise when all the children call each other brothers and sisters.

It helps some that a woman uses a special word for a child she herself has brought into the world, and that a man refers to his own mother or his true brother or sister by uncommon and rarely used words. But to a stranger who is unfamiliar with the by-ways of the language the custom creates relationships that at first are impossible to understand.

These group marriages are arranged early, but I do not know whether the young people's parents have anything to do with the agreement. I doubt it, because the custom was explained to me as an expression of friendship among the young couples. As an example of a double marriage I may mention that Oomje and his friend Taengekai traded wives. Taengekai and his wife were both quite young and had no children. Every once in a while Taengekai slept in Oomje's tent, while Oomje spent the night at Taengekai's. As far as I know, the custom is always based on reciprocity. A man will not permit an unmarried man to sleep with his wife, nor does a host offer a guest his wife.

I am inclined to believe that the group marriages occur because they increase the chances of having children and because it is so necessary for the Chukchi to have children. Those who have children are safe. They know that they will not suffer when they grow old since the children will take care of them. Therefore, everyone wants children, but sometimes the matter of obtaining them must be arranged. Tumlein's wife was childless, but he had a friend whose wife had four children. Perhaps Tumlein was the real father of one or more of these; but to make everything look right, Tumlein and his friend exchanged wives for a year. During this year the friend's wife bore a boy, and as soon as the baby could leave his mother Tumlein took him to his own

Among the Tundra People

tent, where Tumlein's childless wife cared for him like her own. Both were proud of the son, who, at eight, was engaged to a girl of the same age.

I also came across other cases which were more surprising to find in these primitive and simple conditions. While the Chukchi were still living at Ayon Island, groups of them visited us on board *Maud*. In one of these groups was a well dressed woman between forty and fifty, who looked so different from the other women that we noticed her at once. She was unusually tall, with a thin Indian-like face, but the strange thing was that she evidently had to cut her whiskers, and that occasionally her voice was very deep. Later I met this mysterious woman, Neanpakjin, several times, and I soon learned that "she" was not a woman at all. She was a man, who up to the age of about twenty-five had dressed and acted like a man; but who had decided he wanted to wear women's clothing and live like a woman, and had taken a new name. Long afterwards came the explanation. The man was homosexual and had changed his name and way of life because he "needed men." My friends named three other men who also dressed like women. Here, among the Reindeer Chukchi, who appeared to be untouched by many of the diseases of the civilized world, were found persons who were subject to what in earlier times was considered one of the extreme examples of degeneration. This indeed justifies the present interpretation that homosexuality is an abnormality, because in the primitive conditions that exist among the Chukchi it is hardly a question of debauchery.

The older Chukchi acted as if there was nothing remarkable about the case and treated Neanpakjin as if he really were an old woman: "Give the woman the cup," or "The old woman needs a pipe." When a group of men and women visited Neanpakjin, the women squatted with "her" by the fire and exchanged gossip. The Chukchi, however, were not

only very proper in their attitude toward Neanpakjin, they were very generous. The reason for this was that both he and another "man-woman" had been able to build up a reputation as medicine men. The younger ones were less respectful, and one young boy caused a great deal of hilarity when he told a group how he had been the subject of considerable attention from Neanpakjin.

Neanpakjin played his part as a woman perfectly, worked in his tent, cooked, sewed, and talked with the swishing pronunciation and the high-pitched voice of the women, but every once in a while a deep manly voice broke through. Neanpakjin lived in his own tent, where I have visited him, but it was hard for me to act as unconcerned as the Chukchi. I could not get rid of the feeling that I was confronting a peculiar phenomenon.

I mentioned some of the customs of inheritance earlier when I told that the daughter inherits the father's tent. I was unable to learn exactly what definite regulations are followed, but a few examples may indicate the customs. Gregory had already divided all his reindeer among his children. The oldest son received one-half, the next one-fourth, and the remaining one-fourth was divided among the three girls. Of these three, the oldest would always stay in Gregory's tent and would inherit this when he died; therefore, she was given most of the reindeer of the last one-fourth. The other two girls were on the market, and would marry and, therefore, did not need many. The older of these two little girls, who was six or seven, was already engaged. The division of the herd, however, was only in name. In reality, Gregory ruled over it completely, deciding which ones were to be slaughtered, and which ones were to be sold, and so forth; but he kept the divisions in mind and saw to it that equal amounts from the different parts of the herd were used.

Kaankalj had two daughters: the older was to inherit her tent and all her reindeer, and the younger was promised and

Among the Tundra People

would not need any. Her son-in-law, Oomje, mostly managed her herd now. Kaankalj's being married to Gregory did not mean common ownership, nor would either one inherit anything from the other.

These two examples seem quite typical. A man usually divides his own belongings among his own relatives, and a woman among hers. As soon as possible the oldest son is given his own herd and own tent and is made independent, but the sons usually put their tents up near their father's, and all reindeer often remain in one herd. If a man is survived by wife and daughters only, his brothers or nephew demand some inheritance. A rich man in our neighborhood died suddenly and left his huge herds to his wife and only daughter. His two younger brothers, however, demanded half of the herds, a demand which the neighbors seemed to think was in order. The younger brother traveled to the widow, but when he was about to drive off half of the herd, the two women wept so bitterly that he could not go through with it. He hurried home empty-handed, because he could not take the reindeer away from two women and make them unhappy. If his older brother wanted the reindeer, he could go and take them himself. Both brothers had more reindeer than they needed.

If a man or a woman dies without children, the inheritance goes to the nearest male relative. A well-to-do man, Ekop, who had passed his best years, had no children and had, therefore, taken a young girl as a second wife. That winter he died from heart failure, and his nephew, a young orphan of eighteen or twenty, suddenly became a rich and important man, because he inherited Ekop's reindeer and tents as well as Ekop's two wives, the old childless woman and the young girl.

CEREMONIES AND TRADITIONS

As soon as a Chukchi baby is born, it faces the first problem in life: it needs a name. When Oomje's and Na-anj's little boy was born, he was very displeased with existence and cried day and night. One day they had a visit by Make, a clever medicine man who dreamed instead of beating the drum as others do. If anyone wanted a remedy for disease or wished to know about the future, he could go to Make, tell him his troubles and ask him to dream, which he did very reliably. So when Make visited Oomje and Na-anj while the boy was tiny, nameless, and crying, they asked him to take a look at the boy and find out what was wrong. Make immediately saw that the boy needed a name, and the same night he heard a voice say clearly that the boy should be called Makjeli. That is his name today, and Make was given a pair of white mittens for his services.

Most children get their names this way, although usually it is not such a prominent person as Make who hears the name in a dream, but rather one of the grandparents. However, a child can also get its name in another manner. The grandfather or some other old person asks the "speaking stone" — a small stone hung on a string that is allowed to

Among the Tundra People

swing and strike the drum in a prescribed manner. The sound is interpreted as a name, which is given to the child.

The Chukchi names are partly mispronounced Russian names, as Makjeli for Michael or Looke for Lukas, and partly they are names with certain meanings. Even though I did not understand them all, I know that when a man is called Atton, Attroa, and such, then his name has been derived from "Attakai," or "dog." If his name is Oanau, it has something to do with resin, and the name Rautergin means "the one who barks." Children are usually called by pet names which are far too spicy to be repeated. Boys and girls do not always keep their names throughout life, but often when older receive names that characterize their appearance. One old woman was never called anything but "Toothless," and she really was so toothless that she could put her underlip upon her nose.

The next most important ceremony in the life of a Chukchi is marriage. The one who leaves the parents' tent to join the other's family gives up his or her own fire, and is transferred to that of the future partner. During my winter, Kaankalj's youngest daughter, the twelve-year-old Gemangaut, moved to Noolan's tent to be married to his seven- or eight-year-old son, Angkaue. A couple of days before the ceremony, Noolan came to us with wife and son, but returned home the next day, leaving his wife and son behind. By afternoon of the third day we were all ready to leave. Gemangaut's clothes had been packed on her sled, together with her small treasures, a string of beads and a couple of tin cans, and on top was tied the lasso she was to take to the groom. Gregory and Kaankalj really should have taken a spear and a bow with arrows along, but Oomje with his wife and baby had left us shortly before and had taken the family spear and bow with them. We had to start without weapons, for modern rifles could by no means be substituted.

Ceremonies and Traditions

At last we drove off, and for once in a definite order. First came the stepfather, Gregory, then the bride, Gemangaut, who was wearing her best clothing for the occasion, and after her the bride's mother, Kaankalj. Next drove the mother-in-law with the youthful groom behind her on her sled, and last myself and Kaankalj's relatives.

Noolan was camping with two younger brothers, and when we arrived at the camp Gemangaut stayed at their tent, while the rest of us went on to Noolan's. Gemangaut could not enter Noolan's tent before the next day's ceremonies were over.

The next morning the reindeer herd was driven to the tents and Gemangaut's driving reindeer were caught and tied behind Noolan's tent, where they were painted with red dye of the kind used for dyeing clothing – one stripe across the nose and one across the right side from back to belly. Next to the reindeer was placed a small sled containing many queer objects: two old red fox skins, a few crude wooden figures and some fur scraps, three or four bundles of Y-shaped wooden sticks, about eight centimeters long, black, greasy, and wrapped here and there in bits of fur.

In front of the sled and leaning against the tent wall were arranged the "fire woods" with their many holes for the drilling stick, and next to them the big container of seal hide was placed, along with the bone-crushing stone hammer and the big round stone. All of these belongings, which, with the exception of the tools for crushing bones, are taken out on special occasions only, are called the reindeer's "aeten," which, I think, must be translated as the reindeer's "idols." A little way behind the tent three sleds were placed together: Noolan's driving sled, the baby sled with its house of reindeer skins, and the bride's sled. Between these sleds and the tent two fires were made, one in front of the baby sled and one in front of the bride's sled. Noolan's wife started these fires by rubbing the fire woods. In this

Among the Tundra People

case, and in all others where fire plays a part in the ceremony, the fire must be made by friction and cannot be started by using matches or steel and flint. It happens, however, that the Chukchi are satisfied to consecrate a fire which has already been started by matches. In this case, they throw into the fire a few coals obtained in a ceremonial manner from a consecrated fire. Since the fire-wood plays a part in all festivities and since it also belongs to the reindeer idols, one may safely assume that it will not disappear as long as the Chukchi retain their traditional customs.

After these preparations, the bride in her big outer coat took her place by her sled, and Noolan killed four reindeer in front of the tent, and a young buck behind the tent in back of all the sleds. His wife called the bridal couple to her, put her finger in the wound of the newly slaughtered buck, and smeared blood on the faces of both, one stripe across the forehead and one across the nose and cheeks. A little blood was also smeared on the tent, the baby sled, the reindeer idols, and on the sleds in back, while a little was spattered on the fires. When this had been done, the bride's reindeer were turned loose, and the mother-in-law took Gemangaut by the hand and led her around the tent and into it. Here she whispered something to her, but I could not understand what she said. With this, the ceremony was over, and Gemangaut belonged to Noolan's tent. She took off her big coat and helped the women with the skinning and cutting up of the slaughtered reindeer.

Kaankalj told me that this is always the way they do. When a girl is taken to her new home, a reindeer must always be killed behind the tents and the blood smeared on the faces of the bride and the groom, on the reindeer idols, and on the baby sled. The same is true when a young man moves to a tent to marry a young girl there. The only difference is that when a girl leaves her home she usually is given Chukchi pemmican (prarem), dried meat, and fat to

Ceremonies and Traditions

bring the in-laws, while a boy brings nothing. Kaankalj did not send prarem with her daughter; she would do that at some later time.

Gemangaut, however, did not stay long at Noolan's. She was so homesick that after a month she came back, "for a visit," they said. But Kaankalj says that the visit will be quite lengthy; she may keep her quite a while longer, because as yet Gemangaut has too little sense to adapt herself to strangers. But her driving reindeer stay at Noolan's, for if they were returned and should die, it would mean bad luck.

A Chukchi funeral is also accompanied by many ceremonies. I had no opportunity to be present at one, but several deaths occurred in our neighborhood, and there was so much talk about them that I got a fairly complete picture of the customs.

Few old Chukchi die a natural death. When an old person takes ill and becomes a burden to his surroundings, he or she asks to be killed by one of the nearest relatives. The oldest son or daughter or son-in-law stabs the old one in the heart with a knife. Among other peoples the old and weak who become a burden are killed, often in cruel manners. Among the Chukchi there is no question of cruelty, because their respect and kindness to the aged is far too great. Theirs is an act of mercy, and when an old person takes ill and life becomes a daily hardship, no one will deny him this last service.

Teriem's wife was ill for a long time. She had stomach trouble and could not keep her food; she became emaciated and weak, and on February 21 she died. That day Kaankalj returned from visiting Jeaantaa, who tented with Teriem and told about the death. The distance to Teriem's was only about forty kilometers, and many of our friends with whom we had travelled from Ayon lived over there, so the next morning I told Gregory that I wanted to drive to some of these friends in order to be present at the funeral of Teriem's

Among the Tundra People

wife. But Gregory and Kaankalj had all kinds of silly objections. At last they explained that it was impossible for me to drive alone, because the one who arrives alone at a tent in which there is a corpse runs a great risk of taking ill. To be safe, all three of us would have to go together, but this would be intruding for we were not related to the dead. In fact, it would be doubly intruding for us to go, because we should have to stay for several days. Preparations for the funeral would have started, and we would not be able to leave until the funeral was all over because that would cause disaster. Kaankalj had left Jeaantaa immediately on hearing that Teriem's wife had died, because if she had waited she would have had to remain. I was disappointed, but was in part compensated by Kaankalj's telling me a great deal about the funeral ceremonies.

The Chukchi do not bury their dead. Either they expose the body by laying it out on the bare ground, or they burn it when this has been specifically requested. I was told that this happens only when the person's body has become greatly wasted during the last days. Some families never burn their dead.

Two or three days after death the closest relatives leave at night, with the body dressed in new clothes which have been sewed after death. They drive to a place decided upon for the funeral, usually a hill in the woods or a spot on the barren slope of the mountain. Here the snow is cleared away from a space large enough to place the body on the ground.

Stones are laid on the ground in a quadrangle with the side toward the southeast missing. Then the body is dismembered: the head is cut off, and, cutting through the clothing, the limbs are severed at elbow, wrist, knee and ankle, and several slashes are made in the torso. If the deceased had suffered from stomach trouble, the stomach is opened and investigated. Some families are satisfied to sever the limbs at one joint only. The remains are next placed

Ceremonies and Traditions

between the stones, with the dismembered limbs to one side, the head toward the closed side of the quadrangle, toward the northwest, and all covered with reindeer meat. I have asked why the bodies are treated in this manner, but the only answer I could get was that if they failed to do it, the living might get sick.

The dead need different articles to take along to the next world, and men and women need exactly the same. First of all, they need a sled with complete equipment, reins, harness, and tine. The sled is broken to pieces, and the wreck placed by the grave so that it also faces the northwest. The sled of a living man must at night always turn toward the southeast or the east, toward the direction of the sky from where the first daylight comes in winter or spring; but the sled of the dead is turned to the northwest and points toward darkness and night. Beside the sled are placed spear and bow and arrows, and inside the stones are put the dead person's ax, knife, teacup, and pipe. When I asked if the women did not need to take along needle and thread, I was laughed at. Old people usually have beautiful sleds with which they will not part. I asked Kenkeon, who had just finished a fine woman's sled, if he would not sell it to me, but he refused my most tempting offer of tea and tobacco. His mother was now so old that she had no teeth. She might die any time, and if so she would need the sled.

I learned less about the burning of the dead, but I was told that the body is dismembered in the same way before it is placed on the fire, and it is burned with clothes on, together with the sled and with the weapons. Stones are arranged on the ground in a similar manner, and the charred remnants are placed inside the stones, together with ax, knife, teacup, and pipe.

Afterwards the relatives drive back to the tents, where they stay quietly for two days. On the third day the dead person's reindeer flock is driven to the grave, and the

Among the Tundra People

neighbors gather from all around, for now the real ceremony will take place. The men help catch the reindeer to be slaughtered, and the women help skin and cut them up. At a rich man's funeral there are often twenty to thirty reindeer killed, of which many are old bucks. All the antlers are gathered and arranged in a large pile, together with antlers of reindeer which earlier have been slaughtered near the tents. The whole pile, which is placed five or six steps to the northwest of the grave, is surrounded and covered with logs and stones. During the slaughtering huge fires, started by the fire-wood, are burning, and the teakettles are singing. The best pieces of the reindeer — fat, ribs, head, tongue, and heart — are thrown into the meat kettles, and are eaten as soon as they are done, and the kettles are filled again. For a little variety one takes a leg bone, chews off fat and sinews, crushes it, and enjoys the raw marrow.

The women come directly from the slaughtered reindeer with blood way up their arms, and gather around the tray with teacups, but now and again they get up to take some choice morsel of food to the grave. When finally the last cup of tea has been emptied, the slaughtered reindeer finished, and the last piece of meat eaten, the gathering breaks up. Everyone who has helped with the slaughtering gets a reindeer on his sled, and only a few are left for the dead man's family.

The funeral ceremonies are over for this time, but not forever. A year later the reindeer herd is again driven to the grave, a good number are slaughtered, and the antlers added to the old pile; and two years later, the same ceremony is repeated. In following years the closest relatives go to the burial place carrying fat, prarem, tongue, and marrow, of which small pieces are cut and placed in a small pile inside the stone quadrangle. Whenever some of the family pass near the burial place, they sacrifice food, tobacco, or sugar to the dead, but this sacrifice does not have to be at the

grave. It is enough to remove the snow and place the food on the ground where you happen to stop.

In the fall I was present at a second-time slaughtering by a grave. The previous year the old man who lay there had been killed and burned, according to his own wishes. The grave lay near the Makju-oam River on a hill with sparse woods. Three small and two large stones formed a quadrangle nearly two meters long and half as wide, and the short side turning toward the southeast was lacking. Inside the stones lay the dead man's ax and knife and the remnants of the charred bones. A pile to the northwest of the grave contained the antlers of at least thirty or forty reindeer, indicating that the deceased had been a wealthy man. The antlers of thirteen old and young reindeer were added to the pile during the slaughtering, to which many neighbors had come. They ate and drank and brought pieces of food to the grave, and gradually a small pile of tidbits of food was accumulated by the head stone.

I have often watched the Chukchi bring an offering to their dead when they passed near the place of burial. On the way back from Panteleikha, four Chukchi and I drove along the Pogynden River, where it winds in a narrow, wooded valley with high mountains on each side. It was Oanau and his wife, the old withered woman, Rinditsjual, with whom I was then staying, her son-in-law, and myself. The sky was clear, and in the middle of the day we had to stop because the snow was melting and sticking to the runners of the sleds. When we had eaten, I drowsed in a sunny place, while the others walked along the river bank. I heard them call me, got up, and hurried over to them. They had gone into the woods and were kneeling around a spot from which the snow had been removed. Rinditsjual pulled out a small piece of sugar, bit it into two, and placed one half on the ground. Then she took a piece of chewing tobacco, which she divided into five parts, placed the

Among the Tundra People

smallest piece on the ground, and gave us the others. We all gave her some tobacco, part of which she placed on the ground, but most of it she kept herself. When we left, I asked Oanau who the dead man was. "That was Rinditsjua's husband," he answered, "who died many years ago."

Small children are buried more simply. They are dismembered, placed on the ground, and covered with reindeer meat. Perhaps a few antlers are left near the burial site, but no sled or other things are needed, and no reindeer are slaughtered.

Let us return to Teriem's wife. Kaankalj told me that the very day she died the women had to start making her new clothes, and the men to work on her sled. The reindeer herd had to be driven to the tents, a great many reindeer had to be slaughtered, and the meat had to be prepared with which the body should be covered when laid out. The next day everything had to be finished, so that the body might be laid out the second night after death. Meanwhile, the body would be kept in the sleeping tent, in a sitting position in the foremost corner to the right. It would be disastrous to place it by the back wall where the light stands. The third day we could drive over to Teriem's to be present for the slaughtering, which would take place on the fourth or fifth day.

But we did not get our trip. Just as we were ready to leave, Oanau came by and told us that there would be no slaughtering. As usual, they had carried out a test on the body, but this time it had turned out badly. A leather strap is tied to one end of a stick, while the other end is tied around the dead person's forehead. The test consists in trying to lift the head of the body by raising the stick. If the neck of the body can be bent, all is well, but if the neck had already stiffened, if rigor mortis has developed, then the dead is "konpaa rakalkalj," which means "worth nothing" or "only to throw away." The latter was the case with

Ceremonies and Traditions

Teriem's wife. There was, therefore, no more question of sewing her new clothes or fixing a sled for her, nor were any reindeer to be slaughtered. As soon as possible, her body was placed on a sled, taken away, and laid on the ground in a lonely spot. No square of stones was built, no sled or articles were left, and no pile of antlers was arranged. However, the body had been dismembered and slashed in the usual manner. The stomach had been examined, and a "stone" as large as a sparrow's egg had been found where the oesophagus enters the stomach sack.

The Chukchi believe that when the body dies the soul leaves it and goes to the regions of darkness in the north-west. They do not distinguish as we do between mind and soul. They have only one word, "sjimgun," which must be translated as soul or as mind, according to how the meaning fits our language.

The Chukchi think that a newborn baby has only a tiny little mind which makes its first appearance with the first smile. Intelligence or understanding grows with the child, but an older man does not admit that a younger one has a fully developed mind until he has a beard and is between thirty and forty. Kindness and generosity are proof that the person has great intelligence, while smallness and greed show a small mind.

The Chukchi believes that his soul or mind lives in the heart, and when he wishes to stress that he is dealing with a question of the mind, he places his hand on his heart. The word "sjimgun" is used at all times in daily conversation. For example, when a Chukchi wants to say "I mean," he says, "my mind says." "I am afraid" is expressed "my soul is afraid." "I am angry" is "my soul is angry." Generally when referring to some function of the mind, the Chukchi use "my soul" or "my mind" instead of "I." But when they talk about some physical action, like walking, driving, or chopping wood, they use the word "I."

Among the Tundra People

The Chukchi are certain that at death the soul leaves the body and continues life in another world. I have been unable, however, to get a clear conception of their religious beliefs, since direct questions are useless in such matters. Often you do not know enough to ask a sensible question. In other instances you may arouse indignation by showing too active interest, or, what is still worse, you may have to listen to a story made up to satisfy your curiosity. I had to be content with what I learned by chance, and had to try to put the pieces of information together. In doing so, it was confusing that among the Reindeer Chukchi the reindeer have their gods as well as the people. A great many offerings and festivities take place to satisfy the gods of the reindeer and to protect the herds against starvation and diseases. Other ceremonies aim to serve the people, and in still others the purpose is two-fold.

I believe the essence of the ideas of the Chukchi about man and his relation to his surroundings can be described as follows. The earth is peopled with evil beings who take every opportunity to harm man, and are called "keedle" or "kamak." The latter word probably means a god of disease and death because it is frequently used in connection with sickness and death. "Many are sick in that neighborhood" is expressed by the phrase "They have kamak there." "Am I so sick that I must die?" is "Have I kamak?" "Your kamak is far away" means "It is a long time before you will die." When a person is dead the Chukchi say that he is "kamakat," while for animals they use a different word, "oei."

"Keedle" must mean evil beings living in the earth. Among others the mammoth is "keedle." I asked many Chukchi what they thought of the huge mammoth bones they found in the ground. Time and again I got the answer, "Kaa," or "I don't know." I did not know that I was on dangerous ground until finally one answered, "That is

Ceremonies and Traditions

keedle.” Another explained that these bones were the bones of “kamak” reindeer and the tusks found now and then were their horns. The word for mammoth tusk, “kamauretten,” literally means “the horns of the god of sickness” — “kamak,” god of sickness, “retten,” horns. The tusks, no doubt, had earlier been considered with superstitious fear, but now are eagerly searched for. The high prices paid for them have obviously eliminated the feelings of fear.

The evil beings dominate the beliefs of the Chukchi, but they also have ideas of good, although hardly loving, entities. They make sacrifices of different kinds to the sun, which gives light and heat, and to certain stars. But, besides this, they probably also believe in a higher being, a Great Spirit, who is part of all that exists.

For some time I had been wearing a beautiful parka made of white reindeer skin. On one of the skins there was a black spot, and the parka was sewed such that the spot was right on my chest. One day when I had this parka on, I met Boteno, a talkative old man who asked me where I had bought it. When I answered his question, he pointed to the black spot and said, “That reindeer belongs to _____,” but because I had no idea of what was coming, I paid no attention to the name he mentioned. He continued: “It is He who lives up high,” pointing to the heavens, “and who owns all people. All wild animals and everything on earth belong to Him. All the white reindeer with blue eyes are sacrificed to the sun, but all the white reindeer with a black spot on the back are sacrificed to Him.” I tried carefully to carry the conversation further and to make him repeat the name he had mentioned, but I did not succeed, and later on I had no better success from others, in spite of repeated efforts. But this remark, which came quite unsolicited from old Boteno, seems to indicate that the Chukchi do have an idea of a highest being.

Among the Tundra People

In daily life, however, the forces of good play a small part, and the forces of evil a far greater one. To keep sickness and bad luck away, you have to attend to innumerable little things, watch all signs carefully, and satisfy the evil spirits with sacrifices. As far as I could understand, the Chukchi look upon disease as a spirit that enters the body. It lives in the ground. A clever medicine man can speak to the ground and force the spirit of sickness into his enemy, or he can drive it out of his friend. As long as you are awake, you cannot be attacked by sickness, but when you sleep it creeps into you.

One evening when Gregory was talking to me, sitting cross-legged next to the seal-oil lamp, I got the first notion of this concept. The conversation had drifted to the old topic that I ought not to have come alone to the Chukchi, because it would be too bad if I should take ill. I assured him again that he had no cause for worry, since I never got sick. After he had pondered over this for a while, he pointed at my watch, which I always carried on my chest in a small bag of fur. "You are right," he said. "You have such a thing that is always awake while you sleep. If you leave that on your chest at night, sickness can't come and breathe on you."

Later on I was often told that sleep might be dangerous. After we had left our winter quarters, but still stayed fairly near our old camp site, I used to go back there during the day, partly to continue my magnetic observations and partly to sit in peace and write. The air temperature was only slightly above freezing, but the sun was warm. One day when I was ready to leave, Geaoljin came over to me and asked if I used to lie down to sleep on the old camping ground. He wished to caution me not to, since sleeping on an old camp site is very dangerous, for "keedle" was there and I would take ill. He also warned me that there is a great risk in sleeping alone in the open far from people and

Ceremonies and Traditions

animals. However, the reindeer are as good company as people, and sleeping alone near your reindeer herd is not dangerous.

I venture to suggest that when the Chukchi dismember their dead and slash the corpses, their intention is to make it possible for the spirit of disease to leave the body and return to the ground. If they fail to do this, the spirit will pass over to themselves instead of going back into the ground. I have told how horrified old Ankjem looked when, in a hushed voice, he related that during the wintering of the *Vega* Expedition in 1878-79, Nordenskiöld had taken on board a corpse which had been laid out on the tundra (it was only the head, however, that was stolen). Ankjem then added, addressing the others, "Would there be keedle on board the ship?" This question indicates the belief that the spirits of the earth, the keedle, take over the bodies of the dead. Wolves and foxes, of course, live high on all the reindeer meat with which the bodies are covered, as well as on the bodies themselves. The Chukchi must know this, but I was unable to find out whether they consider wolves as "keedle." I do know, though, that they always referred to large wild animals as "aitki nutaek," which means "evil beings who belong to the earth."

The souls of the dead, however, go to the darkness, to the shadow-regions of the northwest. The corpse is placed with the head to the northwest and his sled faces northwest, toward the direction in the sky from which spreads the dark of the night. When the aurora flashes across the sky, the dead Chukchi are celebrating. One evening on our way south, we saw a brilliant display of aurora, and I asked Oomje what it was, in order to learn the Chukchi name for it. I was surprised when he answered, "That is the dead ones who are racing with their reindeer." I never learned the Chukchi word for the aurora and perhaps they have none, because when I asked, they always answered,

Among the Tundra People

“The dead ones are racing.” This belief fits in well with the belief that the souls of the dead live in the darkness of the northwest.

It happens that the dead are sacrificed or dedicated to the star Arcturus. When Noolan was visiting in my tent one evening, he began without occasion to tell me about the stars to which reindeer had to be sacrificed, and went on to say that Arcturus “jandachlaut,” that is, needed human beings. His great-grandmother had been sacrificed to Arcturus; Noolan counted on his fingers: the little finger of his left hand was himself, the ring-finger was his mother, the third finger his grandmother, and finally the index finger was his great-grandmother — yes, it was she who was sacrificed to Arcturus. I could not make him explain whether this was really a living sacrifice or simply a dedication after death. The latter seems more probable.

The souls of the dead can communicate with the living, mainly by using dogs as messengers. When dogs bark at night, they try to scare away a dead person who is drawing near the tent. Therefore, no Chukchi tent is without a dog, in spite of the fact that the dogs are otherwise useless to them, or are even doing damage. Once that winter two of Kaankalj’s dogs got loose and started chasing the reindeer herd. The deep snow had a crust strong enough to carry the dogs, but too thin for the reindeer, which broke through. The dogs soon caught up with the herd, and before people could get there they had killed one of Gregory’s young reindeer and injured one of Geaoljin’s big bucks. The next day when the herd was brought to the tents, the buck was helplessly dragging one hind leg and was in such a pitiful state that Geaoljin gave him the stab of mercy. I asked Geaoljin if he did not hate to lose such a valuable reindeer, but he only answered, “Makjina,” or “It doesn’t matter.” He would give no explanation, but later on I got one from Kaankalj. Geaoljin’s father had died several years before.

Ceremonies and Traditions

Although Geaoljin was through sacrificing at the grave, he had decided that when he came near the grave he would give him the very reindeer that the dogs had chased. Now, of course, it was evident that the old man had needed the reindeer earlier and had let the dogs chase it. There was nothing to make a fuss about.

In daily life a Chukchi must pay attention to many matters so as to avoid disaster. At night you must turn your sleds to point toward the southeast. When a camp ground is left, the antlers of all the slaughtered reindeer must be gathered in a neat pile or arranged in line. If this is neglected, one risks having his herd scattered during the coming year. If a coat is placed on a sled, the neck opening must turn toward the front. A skin of a wolf or a bear must never be laid on the sled which carries the reindeer's idols, nor on the baby sled. A woman with small children must not lend her clothing to a stranger, since this brings misfortune. The first day I spent with the Chukchi at Ayon was chilly, and while I stood and watched the endless preparations for leaving, I had to beat my arms to keep warm. Kaankalj's daughter, Na-anj, saw that I was cold and insisted that I should take her big coat. Although I had no idea of it at the time, this was a sign that already from the first day I was considered a member of the family. Some time later Kaankalj said to me, "We had decided that you were to belong to my tent when you joined us. Don't you remember that you wore Na-anj's coat the first day you were with us?"

I have told about the ownership of the fire, and the care with which the fire is watched and respected, but I have not mentioned that the Chukchi burn all the bones that do not contain enough fat to make it worth while crushing and boiling them, and the bones must absolutely be burned in one's own fire. No trace of food from a stranger's tent must ever be thrown into the family fire. Often when Kaankalj had cut up some prarem which was a gift to me from a stranger,

Among the Tundra People

she asked one of the little girls to take the piece of wood that she had used for a tray and throw it away at a safe distance from the tent. If this piece were used in her tent, the crumbs of the stranger's prarem would fall into her fire and might cause a great disaster.

A stranger must always be placed on the side of the lamp or of the fire, on the left hand when one enters the tent. When we were erecting our big winter tent, I picked out the spot where I wanted to build my hut, but when I told Gregory he had any number of objections, each one sillier than the other. At last he admitted that I had chosen my place on the right hand, and that he could not let me sleep in a place where I would be in danger of taking ill. Fortunately, Kaankalj settled the argument by stating that there was no reason to worry, since I belonged to the family. It did not matter where I slept.

The Chukchi have many different ways of telling the future. One of the most important is to ask the shoulder blade of the reindeer, because that is very reliable and has a great "sjimgun" or mind. The reindeer shoulder blade, "paritlingen," is always consulted before starting a trading trip. That fall many of our neighbors talked about traveling with a small tent to the market place, Markovo, on the Anadyr River to trade their furs for tea and tobacco. Wild rumors were out that at Markovo you could get unlimited amounts of tobacco, tea, copper pots, and tea kettles, and that fabulous prices were paid for fox fur. Among those who wanted to go was Daaigo. A while after all the others had left and were on the way, he came to visit us. I asked him why he had not gone, but got no answer. When he had left, Gregory explained that Daaigo's "paritling" had been very bad. It had shown "kamak," death! If Daaigo had started on this trip, one of his family would have become deathly sick. Later on that winter, we learned that all those who had started for Markovo had turned back because they

Ceremonies and Traditions

were hearing continued rumors that at Markovo there was “kamak” – much sickness and death. At Panteleikha the Russian traders confirmed that at Markovo there had been many cases of flu. However, it also mattered much to the Chukchi that the snow was so deep that travel was slow and that the reindeer had difficulty in finding food.

When we were told that our neighbors had turned back because there was disease at Markovo, I reminded Gregory of Daago’s “paritling” which had warned him in time. Gregory agreed that the “paritling” had a very great “sjim-gun” – the shoulder blade had profound knowledge. Four years earlier he had had a very bad “paritling,” but he had been bold enough to disregard it and had travelled with wife and children to Panteleikha. There his wife became ill and died. Kaankalj added that the previous year her husband’s “paritling” had been bad, showing sickness and death. Therefore they had decided that the family should not go to Panteleikha with tent and full equipment, but her husband should go alone. In spite of this precaution, he had contracted a disease that caused his death shortly after his return. The “paritling” was something you’d better pay attention to.

That year when everyone discussed going to market at Panteleikha, we of course had to consult the “paritling,” and I had an opportunity to see how it was done. Two reindeer were killed, one from Gregory’s and one from Kaankalj’s herd; the shoulder blades were cut out, cleaned entirely from meat and dried slightly over the fire. Oomje took both shoulder blades from Kaankalj’s reindeer, squatted by the fire in front of the tent, raked out a small coal from the fire, and placed it in the middle of one shoulder blade until it burned a black spot only one or two millimeters in diameter. He did the same with the other shoulder blade, then allowed both to cool in the open where the air temperature was about freezing. The question was how much they

Among the Tundra People

would crack. Kaankalj's "paritling" showed only a few small cracks, so she could safely go, but when Gregory made the same test on the shoulder blades from his reindeer, both showed big open cracks. That day we had many guests and, when the shoulder blades were ready, they were passed from hand to hand, studied, and discussed. All agreed that Gregory's were very bad, and pointed to disease and death, so he ought not to travel to Panteleikha.

However, he wanted so badly to go that he considered seriously disregarding this warning of danger. One day he announced that in spite of everything, we were to leave with tent and full equipment. The next day he thought we should go without the tent, and the following day he decided that we should stay home since the "paritling" had been too bad. One night he told me that in the morning he had made up his mind to leave, but his right driving reindeer had yawned, so we had better give up all our plans. When the right reindeer yawns, it means disaster for the driver, but if the left one yawns it is some relative who is threatened. At last Gregory decided to ask the reindeer in another way. He pulled seven long hairs from the neck of a reindeer and placed them in a bunch in his hand. Next he tied two and two together at each end of the bunch so that he had three knots and one free hair at each end. Now he took the free hair and pulled. If he had tied his knots so that the hairs made a complete chain, it would be a good sign, but if he had tied them into one ring and a separate chain, this would be bad.

I had seen him consult the reindeer's neck hair once before, at the time we were nearing the place which Gregory had selected for our winter camp. The younger members of the family had disagreed with him about the spot and suggested a place farther east. But Gregory was quite certain that he was right and they were wrong, because one day, when we were driving in the direction they suggested, his

Ceremonies and Traditions

right reindeer had yawned and then balked. To make certain, he also tried the test with the seven hairs, and this came out so successfully that he knew we should have a good winter at the place he had selected.

Instead of seven hairs you can also take ten blades of grass and tie these together by twos. If you get a single ring, all is well, but if you get more rings it is an ill omen. Since Gregory had an absolute faith in the seven hairs, after they had helped him find a winter place where we had all enjoyed perfect health, they were now to decide whether or not we should go to Panteleikha. He took his seven hairs from an old reliable driving reindeer, but unfortunately he tied them into one ring of four hairs and a separate chain of three. It seemed as though our trip was fated, in spite of Gregory's great desire to go and my great eagerness to make it. But Gregory was smart enough to find a way. He reasoned that he was really not a Chukchi, but a Lamut, christened like myself. While he lived with the Chukchi we had to pay attention to their customs or else the disease of the Chukchi might get us. In reality, however, we who had been christened stood under the protection of the sun, and for an occasion like this we ought to be able to disregard the warnings of the Chukchi and travel in the belief that the sun would protect us. As Kaankalj's "paritling" had been fine, she could safely come along and, therefore, the three of us should go to Panteleikha!

During those days all the Chukchi were burning their "paritlings," so when they met their neighbors they always asked how they came out. I was eager to get a couple of the burned shoulder blades, but did not succeed. A while after the owner had studied their appearance, so that he could remember every crack for many years, the blades were burned. To give them to a stranger would bring the greatest misfortune.

Among the Tundra People

The Chukchi can also tell fortunes with cards, and have probably learned the art from the Russians at Panteleikha. There, or at other places where they have come in touch with civilization, they have acquired both fear and respect for instruments such as cameras or field glasses, all of which they call by one name, "gitaene." I got an inkling of how this particular superstition may have started, when Ankjem told that when he once visited the market at Markovo, a stranger with a big "gitaene" had asked him to sit in front of it while he looked at him through the thing. Then he asked Ankjem to sit perfectly still a moment, he squeezed a rubber ball, and Ankjem heard a small click. When the stranger was through, he said to Ankjem, "That's fine. It'll be a long time before you die." And Ankjem beamed when he added that today he was one of the oldest of all Chukchi.

When I used my camera among the Chukchi, I was often asked to "see" if one of them would soon die, but I found it wiser to refrain from all prophecy. A person who takes pictures of a Chukchi at market can well afford to say that his customer has a long life before him, but when you live among them it may become embarrassing to have made predictions. You risk being classed as a false prophet! At every opportunity I tried to explain that my cameras were quite harmless, but I failed to convince anyone. Even Gregory protested and raised all kinds of objections when I once wanted to leave a camera in the small house on his baby sled. At last it developed that he was afraid to have "gitaene" on the sled, because it might bring misfortune to the little ones.

My magnetic observations were, of course, very suspicious because I stood for hours peeping into a field glass. Several times I tried to explain the function of the compass to my curious spectators, who would watch me patiently for hours. The outcome was always that they thought the

Ceremonies and Traditions

compass carried a piece of metal with “sjimgun” – intelligence – and that I was asking it if the land of the Chukchi was good or bad. When we arrived at that point I assured them that their land appeared to be excellent.

In winter the Chukchi watch the new moon carefully, especially the new moon in February. If it appears “standing,” it is a good sign, but if it is slanting sidewise when seen, it means death or sickness. When we first saw it that year, it was decidedly slanting, and sure enough, shortly afterward there were two deaths in the neighborhood. The Chukchi know the man in the moon also, but they do not see a face but a whole person with outstretched arms. A young Chukchi to whom I gave a pencil and paper drew him for me – it was thus I learned about him – and the drawing must have been very good, because all those to whom I showed it could immediately tell that this was “ji-ideljiken,” the man in the moon.

The Chukchi no doubt take warning from dreams. I have no definite example of this, but I know they explain their dreams in many ways. Old Neomesj told me he had seen the land to the east and the land to the west in his dreams. The first was dark as night, there they must have disease, but the latter was bright and clear.

One morning a young boy came to me with a serious face and asked if my father was living. I answered that when I left he was well, but almost two years had passed and much could have happened. “No,” he said, “he is still living. I saw him last night. We smoked together!” From snatches of conversation I gathered that they believe that in dreams the souls of the dead may speak to the living. When a man arranges a race, he does so as a result of a dream. The customs of offerings or sacrifices give the races the character of festivals for the dead, and therefore it is probable that a man gives a race when he has dreamed of one of his dead relatives.

Among the Tundra People

It is not only in dreams that the soul can leave the body, see people, and observe events miles away; a man who is a great medicine man, an “aeng-ae-aegnelin,” can, when he beats the drum, transport himself into such a state that his soul sees whatever he wishes. Since I was anxious to be present at such a drum session, I explained to Gregory and Kaankalj that I had been away from my own tent so long that I was worried about my folks. Was it possible that an “aeng-ae-aegnelin” could see for me, and tell me how everything was in my home, even though it was so very far away? Kaankalj was certain this could be done. No matter how far away my tent was, the medicine man could see it as clearly as if it were right next to ours. We agreed that Gregory should ask old Neomesj, a great doctor, whom he knew well, if he would beat his drum and see for me. Shortly afterward we had a visit from Neomesj, with whom I had earlier made friends by gifts of tobacco and flour. When Gregory asked him, he promised immediately to help me, but said we must wait a few days because he had just beaten his drum for Jetelin’s sick boy. Should he beat it for me now it might affect the boy and take the strength from him. Gregory was delighted that Neomesj had not refused us, for that would have been a bad omen.

Finally he came to spend the night in Gregory’s tent and to beat the drum for me in the evening. Neomesj, Gregory, Kaankalj, Gregory’s housekeeper Janenint, and his three little girls were all gathered. When we had eaten and drunk our tea, I expected the performance to begin, but no, not until everyone was ready for the night and the lamp had been put out could the drumming start. As I wished to return to my own sleeping bag, I withdrew to the foremost corner of the sleeping tent. Neomesj sat across from me in his night attire; that is, without clothes but with a reindeer skin pulled over the lower part of his body. When the last pipe had been lighted, the lamp was put out and the others

crawled under their skins. Neomesj started to beat his drum slowly and monotonously, accompanying the music with equally monotonous singing. Soon he stopped and inquired if we were going to Panteleikha. Gregory answered he did not know, that tomorrow the shoulder blade would decide. Neomesj asked a few more irrelevant questions, but the drumming and singing gradually became livelier. It rose to a deafening noise or it dropped to a monotonous low droning. Once in a while when at its loudest, Neomesj broke off suddenly and thrust the drum against the ceiling of the sleeping tent, so the whole tent shook.

All the time Gregory and Kaankalj encouraged him by crying, "Hick! hick!" Now and again Neomesj interrupted the drumming to speak to us, and Gregory and Kaankalj answered him, "Indeed," "of course," "my goodness!," and the like. Neomesj was no longer talking in his natural voice; his voice sounded forced and strained, and every time he tried to say anything he started with a long drawn "he-e-e" or "i-i-i-e." He saw the land toward the west, clear and bright. Then he saw my country; it lay beyond the sun-chief's — the czar's — and it was clear as the day. Suddenly he cried out while drumming, "Harry's father, hello!" He saw my father's tent, where all was well, standing beyond and to the north of the sun-chief's tent. When he had kept on for more than half an hour, he stopped abruptly and said in his usual voice that his son, Kargitu, had a bad cold; yesterday he had beat his drum for him and did not want to continue now.

After this performance I understood why I had not succeeded in making any impression upon the Chukchi by telling them some about the technology we had mastered. Once when I tried to explain the wireless and said that we commanded means that made it possible for us to speak to persons living far, far away, I heard no exclamation of admiration, but one of the listeners remarked drily,

Among the Tundra People

“What about it? Last night Neomesj spoke to the man in the moon.”

During the drumming performance by Neomesj I experienced the feeling of weirdness a clever drummer can create, but I saw none of the tricks the Chukchi had described to me. Someone told me that Neomesj could breathe flames a meter long, others that the young Aigeurgin, who had made himself impossible as Ankjem’s son-in-law, was a master of many strange feats. Several of them said they had seen him plunge a knife into his abdomen, twist the knife around and push it in and out. They had also seen him pierce himself with a spear, and had seen the point protruding through his back, or they had seen him eat a knife as if it were a piece of meat, and cough it up again.

The young men admired Aigeurgin, but the older people were cynical. One old man declared that Aigeurgin was a good singer and drummer, that was all, and another said that now the Chukchi had no great “aeng-ae-aegnelin,” but that when he was young there were many. The old story of the great old days!

Once when I visited Oanau and met Aigeurgin there, I succeeded in persuading him to demonstrate his power. Only four of us were present in the sleeping tent, and after the usual preliminaries – tea, tobacco, and talk – Aigeurgin was prepared to show what he could do. The lamp was permitted to go nearly out, and I could hardly see the contours of Aigeurgin, who was sitting cross-legged in front of the lamp, with only a piece of skin as a loin cloth. Oanau and his wife were sitting each in one of the corners of the tent, halfway behind Aigeurgin, and I had been shown to one of the corners in front of him.

Taking the drum, he started drumming and singing, and he knew how to use the drum and his voice. The performance by Neomesj, although weird and exciting, was child’s play compared to Aigeurgin’s. When he talked at intervals in

Ceremonies and Traditions

his singing, his voice sounded now as if it came from the ground, again as if it came from outside. After half an hour he stopped and asked Oanau to tie his hand behind his back. This done, he let me examine the knots and see that the thongs were nearly cutting his flesh. Turning his back again to the lamp, which now was still lower than before, he began singing again. Suddenly he threw his arms in the air and the thongs fell to the floor.

Next he asked for a knife, which he let me inspect before it was handed to him. It was a long knife with a keen blade. Then he took his position so that I could just make out his profile against the dim background. He talked, sang, and filled the small tent with noise, until with a piercing scream he appeared to drive the knife into his body. I saw the flash of the blade and while he was sitting bent double pressing his hand against his body, groaning and moaning, I thought I could see the handle of the knife in his hand. With a new, inhuman scream he jerked the knife out and threw it over to me. There was blood on the blade.

Before resuming his drumming and singing, he pointed at a glass bead necklace that he wore. Now he often interrupted his singing to carry on a dialogue, talking in two different voices. After a climax of drumming, he stopped abruptly and pointed to his neck. The beads were gone. The lamp was adjusted to burn brightly, and I was allowed to search the tent for the necklace, but could not find it. Aigeurgin claimed that he had sent the necklace to his sister-in-law who lived about fifteen kilometers away. I crawled under my skins, very much bewildered, and wondering how much I had seen and how much I had imagined. A week later, when I again met Aigeurgin, he was wearing his glass beads, which he claimed he had obtained back from his sister-in-law.

Aigeurgin was no doubt a very able ventriloquist, and I know that the art of ventriloquism is known among the

Among the Tundra People

Chukchi and that they have their fun with it. One day when Tunnelaigun who was of the same age as Gregory was visiting us, Kaankalj was rummaging around in her bags. Among other things she found some pieces of whale bone and Tunnelaigun asked for a piece to make some drum-sticks. "Can you beat the drum? Are you an aeng-ae-aengelin?" asked Gregory. "Let me hear your stomach speak." No, it could not. "But mine can," said Gregory, "just listen." Gregory's stomach said plainly, "Pip, pip!" but Tunnelaigun saw that Gregory kept one of his hands on his body, and he did not give up until he got hold of that hand. He found that Gregory held a tiny rubber chicken, which I had brought with me and had just given to his baby daughter, and which when pressed said "Pip, pip!"

Drumming and singing frequently took place for the purpose of healing the sick. As far as I could gather, it was just during his attempts to drive away disease that the medicine man worked himself into the highest ecstasy and did his most unbelievable tricks. I have heard of a few cures. The previous summer Jetelin's little boy took ill, and his stomach was swelling. Neomesj attempted to cure him, and night after night he was drumming in Jetelin's tent. During one performance blood flowed from the boy's nose and mouth, and after that he improved rapidly and finally became quite well. I have also been told that Gealjjin was hit across the small of his back in a fight, which caused a kidney disease. Aigeurgin did the drumming for him, and finally sucked a big wooden splinter out of Gealjjin's head. Gealjjin became much better, although he would probably never be quite well.

Gregory has a small blue cross tattooed on his right shoulder. He told me that once he had such pain in his shoulder that he could not throw his lasso. Then one of the Chukchi medicine men whose name he refused to mention beat the drum for him and tattooed the cross on his shoulder.

Ceremonies and Traditions

Since then he had been quite all right. All of our visitors on board *Maud* had noticed that one of our sailors had a large tattoo on his wrist, and later on I was asked again and again why he had been tattooed there; had he had some pain in his wrist? Tattooing of the face, which, however, is not common among the Reindeer Chukchi, has nothing to do with sickness. Tattooing is done with an ordinary needle, and the blue coloring used is made from berries.

I do not know whether the Chukchi prepare any drugs themselves, but it is possible, because they showed great belief in the different kinds of "water" and "salts" that they could get from us. It is more probable, however, that they have learned about drugs from the Russians. They must have had some contact with Russian doctors, because many of them had been vaccinated against smallpox on their visits to Panteleikha. But they are not quick to see the doctor. They may have bad colds or a great deal of stomach pains without asking for help from any medicine man. Epidemics of colds appear every winter. The Chukchi are right when they tell that the Coast Chukchi carry the disease with them when they bring their goods. They bring "kamak" along. In Panteleikha there is always "kamak" among the Russians, and when the Chukchi go there they often catch cold and many die from the diseases they contract there. This is not so strange, because the Russians are greatly troubled with colds, and tuberculosis is common. When the Chukchi visit them, they sit in their warm rooms and drink tea until their skin clothing is soaked with perspiration, and then they drive home sitting on their sleds in the extreme cold. It is to be expected that they catch cold. Fortunately, none of them caught cold after their visit on *Maud*, and we were given great credit for this.

If you make enemies of a medicine man, you risk getting sick, because he may speak to the earth and force disease into you. You may also take ill as a result of an evil act. One

Among the Tundra People

day Gregory drove off with two white reindeer pulling his sled. One of these became quite obstreperous, making Gregory so furious that he struck the deer with his tine until the blood streamed down the legs of the animal. The next day Gregory had a bad boil in such a place that he could not sit down, and Kaankalj was certain that it was the punishment for mistreating his white reindeer. It was hard for me to keep a straight face when Gregory lay on his stomach complaining and wailing, "If only I had not beaten my white reindeer like that!"

Epidemics occasionally cause many deaths. Six or eight years before my visit, either scarlet fever or measles spread among the Chukchi and took many lives. The sick all had high fever with a red rash all over the body. Another winter a severe form of influenza was common, but, fortunately, there was no epidemic the year I lived with them. Three older people died in our neighborhood, one from pneumonia, another from some stomach ailment, and the third from heart failure. I was happy that there were no more deaths. If a severe epidemic had broken out, I am afraid they would have put the blame on me, a stranger, who had come to live with them and who carried many peculiar instruments. Many had disapproved of Gregory's letting a stranger come along, for fear it might cause disaster.

The Chukchi are very apt to blame their enemies for death in the family, unless they know that the deceased has disregarded some warning and in that way caused his own death. A year earlier Oomje had had a quarrel with old Akam, and shortly afterwards Oomje's baby girl died. Kaankalj did not doubt that Akam had talked to the earth and forced into the little girl the disease that caused her death. When Kaankalj's half-brother, Petki, died from pneumonia, she again blamed Akam, because so many times he had shown his dislike for Kaankalj's family.

Ceremonies and Traditions

The drum also plays a most important part in a great number of ceremonies that are tied in with other festivities. I was present on three such occasions, twice after races, and once following a special slaughtering.

The most interesting performance was the one that took place at Jeaantaa's after a race. As usual for such an occasion, a reindeer was slaughtered behind the tents while, ordinarily, slaughtering takes place in front of the tent. When the reindeer had been opened and the contents of the stomach emptied, it was dragged into the tent, where it was cut up and the meat put over the fire in big copper pots. The entrance to the tent was covered up completely, and only a tiny opening for the smoke was left at the top of the tent.

During these preparations I was sitting in front of the tent with the men, where the time was passed smoking and talking. At last the wife called that we must come and eat, and we crawled in under the tenting. At first, I could not see a thing, and my eyes were smarting from the smoke of the fire, where a few pieces of wood were smoldering. But a little light came down through the smoke-hole, and a few beams of light fell through little holes in the tent cover. These played through the smoke and spread a dim light over the groups sitting in the huge tent. When my eyes had become adjusted to the dark, I could see the head of the reindeer lying over to the left in front of the sleeping tent. The head had not been skinned, and had not been severed from the hide which was filled with the cooked meat. Directly in front of the sleeping tent lay two drums with their drum-sticks, as well as the meter-long sticks used for striking the edges of the drum. The hosts and their guests grouped themselves in front of the sleeping tent and around the fireplace. It was best to crouch as low as possible to avoid the smoke.

Some meat was cut from the chunks lying in the reindeer hide, and these pieces, together with marrow and fat and

Among the Tundra People

bits of tongue, were put on two wooden platters. The young son of the household and a young girl each took a platter, walked around the tent in the direction of the sun, and scattered the contents on the snow, calling out in loud voices: "Aa-how-ai hau!" To scare the spirits? When they came back, pieces of meat were passed around, and in an unbelievably short time the clean, chewed-off bones could be gathered up again in the hide.

After the meal, Jeaantaa and his old mother each took one drum, and started the chant. Jeaantaa placed himself by the covered entrance facing the sleeping tent, and beat his drum and sang, while his mother squatted in front of the sleeping tent and accompanied him. This, however, was only an introduction, because on this and other occasions, the hosts always began, but soon the drumming was taken over by one of the guests who gave the real performance. In this case Geaoljin, after some hesitation, took one of the drums and replaced Jeaantaa. A young woman took the other place opposite him, wearing her huge outer coat.

Geaoljin started slowly and carefully, but before long he speeded up. Part of the time he used the ordinary drumstick, part of the time the long one. There was a great deal of resonance in the drum, and when he beat the edge hard with the long stick, he filled even the big tent with noise. He sang, but every once in a while he stopped singing and gave a sort of a dance; that is, using the long stick he hit the edge of the drum with large sweeping arm movements, and with each beat, alternating the right and the left knee, he bent his body to the right or left, making terrible faces, and called out, "Hu-ut, hu-ut." The women and girls got up and followed each dance, bending to the right and left, and lifting their arms in turn.

When Geaoljin resumed his singing, more and more joined him, the women sitting with their eyes closed and chanting "Hee-hee-hee haa-haa-haa," at the top of their voices. With

the continuous rolling of the drum, the noise was deafening, and it was no wonder that the Chukchi might be hypnotized. I felt my head swimming, and I literally pinched my arm to stay with my sense.

Geaoljin gradually worked himself into a trance. He walked around, all the time singing and drumming. Once in a while he had to be led to be kept from stumbling over pots and pans, teakettles, and babies scattered about the fire. In between he talked to those present, but in a strained and strange voice, about reindeer, about a dog that had been killed by poison, about a polar bear skin, which Jetelin had once sold, and other seemingly unrelated subjects. He was absolutely tireless. He started shortly after nine o'clock, and not until twelve did he put down his drum. I crept out of the tent at that time and left, but I had not gone far before I heard the noise begin again.

The purpose of this and other similar celebrations is to drive away the evil spirits. On an earlier occasion Oanau beat his drum in Noolan's tent and talked a lot about a "keedle" – an evil spirit – which was on its way south from the mountain Naudringen by Chaun Bay, and which during the night might creep into three new tent poles in Noolan's tent. Noolan's wife had to smear reindeer fat on them, using the "te-aegitsjen" – the stick for cleaning the lamps – and then the "keedle" could not enter the poles. Later, when I asked a man if Noolan was now safe from "keedle," he shrugged his shoulders and said, "There are many medicine men, and some may be stronger than Oanau. If they want to harm Noolan, they can do it." That winter and spring only a few Reindeer Chukchi held these drumming performances in their tents after having been told in their dreams that they should do so. But drumming, singing, and dancing take place in every tent in the fall, when the four-to five-month-old calves have been slaughtered for skins for clothing.

Among the Tundra People

When a race is given, there is always prepared a huge kettle of blood soup with much fat in it and if possible edible roots. Ten to twenty steps in front of the tent a fire is made by means of the fire woods and when the soup, which is prepared over the regular fireplace in the tent, is finished, the kettle is carried out and hung over this ceremonial fire. Nearby is placed a large wooden bowl with chopped, dried meat, and fat. When those taking part in the race have returned, all gather near the kettle, but before eating a sacrifice must be made. Small bits of meat and fat are placed on a couple of plates of wood or snow, and these are carried a few steps in front of the fire to the southeast. Two bowls are filled with blood soup, and the two youngest members of the family each takes a bowl of soup and walks over to the snow-plates. Here they splatter the soup to right and left and straight ahead, and throw some as high up in the air as they can. Often this is done by tiny children who can hardly hold a spoon, and they stand there seriously while their fathers teach and help them. The women remain by the kettle and splatter the soup around from there. They are not always too serious and solemn, because it happens that a girl throws a spoonful of the soup in the face of her husband or admirer. When the sacrifice is finished, the meal begins, and soup, meat, and fat disappear in no time.

Offering of blood soup takes place at every race, and sometimes greater sacrifices are made. The one who gives the race and takes part outside of competition may slaughter one or both of his driving reindeer as soon as he returns, and before he takes off their harness. Often a dog is also killed. When Noolan held the race, he made a small reindeer from snow, and fixed it up with horns made of twigs, ears of dry leaves, and eyes of reindeer droppings. While working on it, he explained that it was to be slaughtered for "those beyond," and pointed to the north. This explanation and the slaughtering of dogs, which are so closely allied with

Ceremonies and Traditions

the dead, are indications that the races are a sort of feast for the dead.

Besides these celebrations, there are a great many others. In the fall, when the Chukchi reach the woods, a number of reindeer are slaughtered, and blood soup and meat are sacrificed to the soil, the woods, and the sun. At this occasion they also sacrifice to the mountain, Evil Pyrkanai, with its ugly black northern wall. Later on, when the sun returns, they sacrifice white reindeer to the sun, and besides blood soup they also offer the blood of the reindeer by sticking their fingers in the wound and splattering blood ahead. When the Chukchi arrive at the market at Panteleikha, they also sacrifice to the woods, the soil, and the sun. When the calves are to be marked, the same ceremonies must be repeated, and also when they arrive at the coast in the summer, and when they leave the coast in the early fall. All these slaughterings take place in front of and to the southeast of the tent. The slaughtered reindeer are always placed with the heads to the southeast, and if you are in the woods, with twigs under the heads. The sacrifices are always performed in the same manner, and it is always the young boys and girls who carry them out. The purpose of these sacrifices is no doubt to protect themselves and their reindeer, to disarm the evil spirits, and to seek help from the sun.

In the winter two quite different slaughterings take place. The one is the "slaughtering to the sleds," which is performed during the last half of the winter. A small sled loaded with all the reindeer idols is placed behind the tent. These are, first of all, the fire woods, the bone-crushing hammer, and a great number of Y-shaped sticks, and dolls made of bits of fur. One man had a couple of dirty red fox skins among the idols, and another had the skull of a polar bear. The polar bear had been killed by the owner's great-great-grandfather and was considered very sacred. I tried to barter for some of the treasures that made up the reindeer

Among the Tundra People

idols, but no man or woman would part with any of them. It would bring disaster to the reindeer. They take such great care of these idols that once Kaankalj came running to prevent me from putting a bearskin across a sled, in which some of the reindeer idols were kept, since placing a bearskin on top of them would have been disastrous.

Behind the sled with the idols a fire is made by rubbing the fire woods, and behind this are placed the baby sled and two or three driving sleds. The slaughtering takes place behind these sleds. As soon as the first reindeer is killed, the members of the family smear each other's faces with blood: one stripe across the forehead, one across the nose and cheeks, and sometimes two stripes from the corners of the mouth to the ears. The husband, besides, puts some spots of blood on his wife's arms, breasts, knees, and feet. Then a stripe is smeared on the tent, and blood is splattered on the reindeer idols and the sleds. A little later a bone is crushed and chunks of marrow are put on the fire woods and thrown on the fire. On this occasion the young man who is killing the reindeer wears a small cap trimmed with little tassels, and around his forehead he wears a leather strap with beads and pendants. The skins of the reindeer slaughtered at this occasion are sacred and are used for the sleeping tent. One does not part with these skins without taking big chances.

The purpose of this sacrifice is to protect home and reindeer from misfortune, while the first big slaughtering that takes place when the Chukchi arrive at their winter quarters is only for the purpose of protecting the reindeer. The sacrifices are made to the star "Paeiuti" — or Altair in the Eagle — and sometimes also to "Ongpinaer" — the polar star. Besides those mentioned, the Chukchi have names for a great many constellations and stars: the Milky Way, which they call "the river full of pebbles," the Dipper, Cassiopeia, the Little Bear, Taurus, the Twins, Vega, Arcturus, and

Ceremonies and Traditions

Capella. Besides these, they have names for a few smaller constellations which we do not consider as special groups. Most constellations are explained as showing reindeer and people.

Let us return to Paeiuti or Altair, which is visible as an evening or afternoon star in the dark period around New Year. The Chukchi say that it appears before the sun returns, and it is at this time that the slaughtering takes place. At Gregory's and Kaankalj's, Christmas Day happened to be chosen for the big celebration. A great many guests who were to help arrived the day before, so I had a peculiar Christmas Eve. I celebrated Christmas Day in my own way, nevertheless. I refused to accept visitors in my hut; I opened a can of plum pudding that Wisting had given me when I left *Maud*, made a cup of coffee, lit a big cigar, and let my thoughts travel homeward.

Paeiuti has to have white reindeer, just like the sun, but Ongpinaer, the polar star, must have black reindeer with white legs. When the reindeer has been caught and brought over to the slaughtering place, the young man who is to stab it goes in front of it toward the southeast, takes off his cap, and mumbles a prayer. He prays that his reindeer may thrive, that the does may have many calves, that he may drive his reindeer without mishap, and that he and his family may have plenty of food and remain healthy. Then he turns around, warms the knife a little in his hand, and stabs the reindeer in the heart. When the deer falls, it is placed with the head facing southeast and with a twig under its head and sometimes also under the tail. The young man sticks his fingers into the wound and splatters blood forward and toward the tents. When Paeiuti sees this, it is satisfied and fulfills the wishes. But if it sees no blood, the man will have bad luck. Prayers are also offered when slaughtering to the returning sun.

The star Paeiuti, the master of all reindeer, also watches that the reindeer are not mistreated. The day Geaoljin

Among the Tundra People

slaughtered to Paeiuti there were many guests present, among them the young Lamut, Piridaal. When he was about to drive home, his reindeer balked and he lost his temper. He waved his arms, stamped his feet, screamed and yelled, and started to beat the reindeer. The reindeer were scared to death and became more and more unmanageable. White with rage, Piridaal hit one deer several times across the head so that the blood flowed from the mouth and the nose. A big group of men and women had looked on calmly until he hit the reindeer across the mouth, but then they became alarmed and called out to him to stop. Later one of the men told me that it is very bad to strike a reindeer across the mouth with which he eats. The star Paeiuti sees it and will punish the offender, and misfortune will come on all his reindeer.

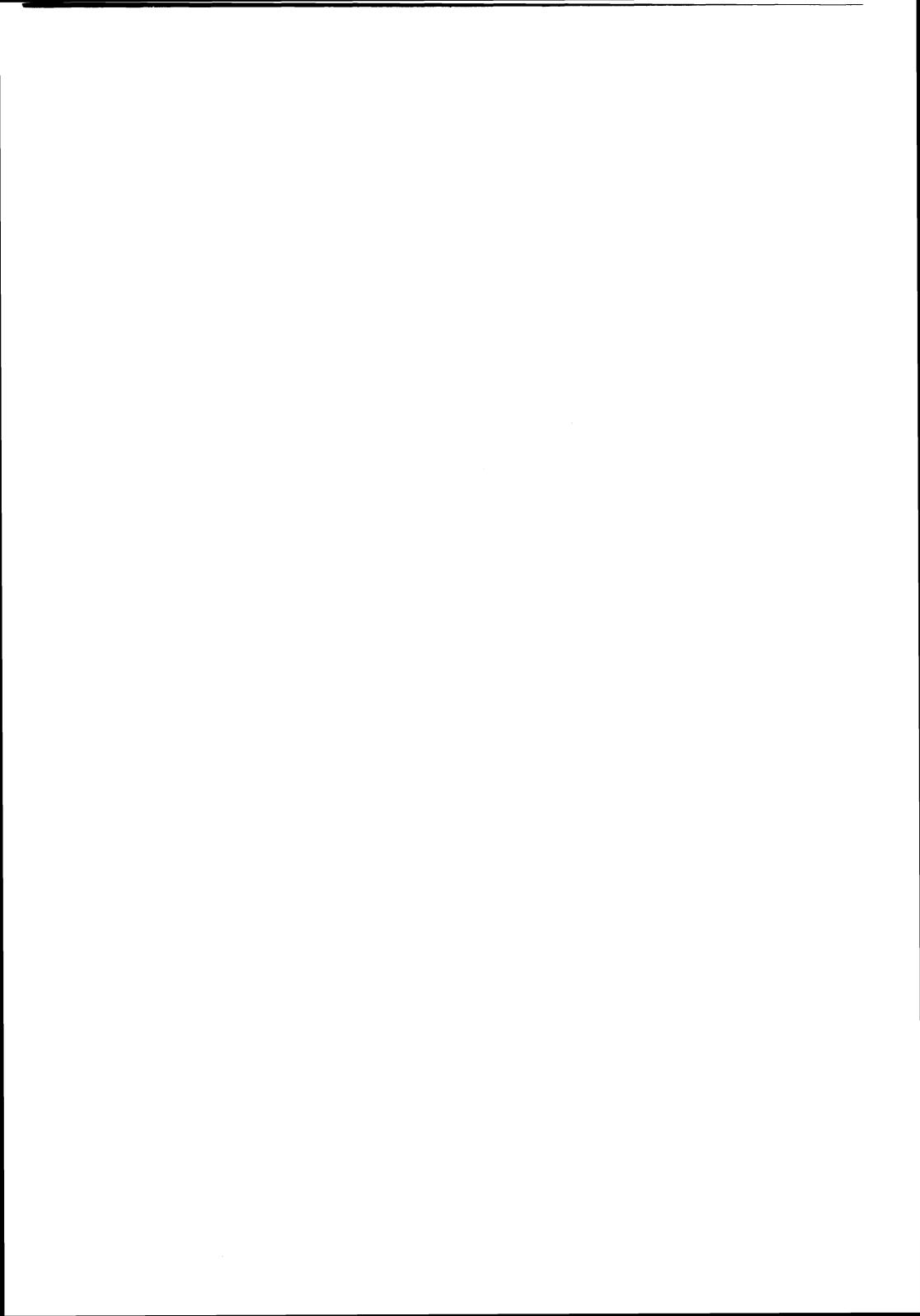
I have repeatedly referred to the sacrificing of reindeer. The Chukchi say that some are dedicated to the star Paeiuti, others to the sun, still others to the Evil Pyrkanai, and so on, but the dedication is only symbolic and does not interfere with the normal use of the slaughtered deer. Actually, more than two-thirds of the reindeer which are killed for food are sacrificed on one occasion or another.

Still another celebration of a different character is held in the spring during the calving season and immediately after the yearlings have been marked in the ears. For this occasion the women have been gathering bones for a long time, and have crushed them with the stone hammer. On the chosen day the kettles are kept over the fire from early morning to boil the fat out. Finally, toward evening, when all other preparations have been completed, the women dip the fat into large bowls, knead it with their hands while it is still soft, and let it cool further until they have a huge cake of half-congealed fat. Behind the tent the snow is scraped away, a layer of twigs is placed on the ground, a layer of reindeer horns laid above this, and then another

layer of twigs. Many of these twigs have been carried long distances and have a peculiar potency.

When we stayed near the Rauchua River in the beginning of May, both Kaankalj and the Chukchi with whom we were camping had brought twigs from the trees at the Pogynden and Makyu-oam rivers. Kaankalj had even brought a twig from Panteleikha. I had asked her why she wanted to take it home, but she had answered her usual: "We Chukchi do that." Later on she told me that when her father was young he was very poor. He had dreamed that luck would follow him if he would bring a twig from the Russian village and place it among the reindeer horns at the spring offering. He did this, he was lucky, and he died a well-to-do man, but before he died he had told his daughter, Kaankalj, who was to inherit the tent, that she must always bring a twig from Panteleikha. She had done this faithfully, and her children must continue to do so.

At this time we performed the spring offering. A couple of reindeer calfskins are placed on top of the pile of twigs and reindeer horns behind the tent, and behind the pile is placed the fire wood. Between the pile and the tent a ceremonial fire is made, and near the fire a few clods of soil are arranged on a wooden stand. At last a small sled is placed against the tent, and a dead calf is laid on the sled. Then the reindeer fat is brought out, together with a big platter of meat, and the indispensable blood soup. A saucer full of soup and bits of the meat are carried up to the tent, where they are offered to the soil and sun as usual, and the fire woods are smeared with fat. After these ceremonies everybody eats fat and meat to his heart's content. Everyone gets a huge slab of meat with a thick layer of fat on it, like an open sandwich. Afterwards, one goes visiting the neighbors, while the women sample and criticize the fat the other wives have prepared. This was the last ceremony I attended before returning to *Maud*.



NOTES ON THE LAMUT

During the winter a number of Lamut lived scattered among the Reindeer Chukchi. These Lamut were so entirely unlike the Chukchi in regard to clothing, language, religion, and manner of living that it was quite amazing to see the Lamut and the Chukchi associate with each other every day and accept each other's different ways of life in a matter-of-fact manner. Fortunately for me, all the Lamut spoke the Chukchi language very well – in fact far better than I did – so that I could talk with them and gain some knowledge of their customs and ways of thinking.

The Lamut I met were, as a whole, smaller in stature than the Chukchi and more Mongolian looking, with flat noses and high cheekbones, and the men with very sparse growths of beard. The men wore their hair short, while the women had long coal-black braids wound up in a knot at the neck.

The men's clothing is entirely different from that of the Chukchi and somewhat more complicated. Close to the body they wear a sort of apron that covers chest and stomach and is fastened with one ribbon around the neck and one around the waist. The upper part of the apron has the hair

Among the Tundra People

turned in, while the lower part, which is made from leg skins, has the hairy part turned out and hangs like a little serving apron from the hip to the middle of the thigh. Over this apron they wear a fur jacket with the hairy side out, or, in very cold weather, a jacket lined with thin fur. The jacket is fastened around the neck but is open over the chest and long enough to reach almost to the knees. The sleeves are tight fitting, in contrast to the wide sleeves of the Chukchi, through which the arms can be pulled in to heat the hands on the body.

The winter jackets are made from huge reindeer skins, not like those of the Chukchi from skins of four- or five-month-old calves. The Lamut wear a pair of trousers the size of swimming trunks but their fur stockings are very long, and outside of these they wear boots made from leg skins, either as long as the stockings or shorter ones reaching only to the knees. The fur boots are kept up by a strap under the knee and are tied to the trousers by another strap. The soles are made from the fur about the reindeer hoofs or from moose hide. Under the fur jacket the men wear a strap from which hang the fire-steel and a short knife, and many of them have an additional long knife fastened along the thigh. The inside cap of the Lamut is quite unusual. It consists mainly of a ring of fur which fits around the cheeks and chin, while the top and back of the head is uncovered. The front is always trimmed with two strips of red and green cloth. The outside or top cap looks like that of the Chukchi. In summer they wear gloves made from chamois skin as a protection against mosquitoes, and their summer clothing is similar to that of the winter but made from thinner furs. The Lamut living continually among the Chukchi often use Chukchi parkas.

The women dress like the men except that their jackets are of a different cut and are trimmed with lapels. Their aprons have long fringes and their boots always reach only

to the knees. The babies, as with the Chukchi, are put into "combinations," a bag with four extra bags for arms and legs and a big flap between the legs.

The Lamut are much fonder of all kinds of finery than are the Chukchi. Their everyday and working clothes are not trimmed much, and those that they wear sitting around the tents are even terrible looking, but their dress clothes are grandiose. A man's fine jacket has two rows of beadwork running from the neck down. His apron is a heavy piece all covered with beadwork, and his boots are embroidered with beads across the foot and below the knee. On the woman's dress clothing the lapels over the hips are covered with beads, as well as the apron. The upper fringes are hung with all kinds of small articles of copper or brass, rings, keys, hinges, or whatever charms they have gotten hold of. Their fur boots often have several centimeters of bead work across the top. With the dress clothing goes a cap of solid bead work. Red, blue, and white are the main colors — the Russian national colors.

Occasionally the beadwork is substituted by fur embroideries, and I don't think that the outfits lose by the substitution. Then the jacket is trimmed with strips and fringes of young sealskin, which is wooly and white but dyed bright red with vegetable dyes from a plant that grows in ponds and brooks. The fur embroideries are made by sewing pieces of black, white, and red chamois skin into elaborate designs. While the white is the natural color, the black is made by boiling the skin with small black berries (*Empetrum nigrum*), and the red is dyed in the manner used by the Chukchi. An apron made of this kind of fur embroidery represents an enormous amount of work, for innumerable bits of fur, half a centimeter wide and a centimeter long, have been sewed together. A single sample of work like this shows the Lamut women to be far more industrious than the Chukchi.

Among the Tundra People

The clothing of the Lamut indicates that they stay in the woods where high winds are rare, and that when outdoors they are used to moving around far more vigorously than the Chukchi. Their clothing does not protect them from the cold nearly as much as that of the Chukchi, who are dressed such that, no matter how cold the weather, they can sit still for hours outside or drive all day long. The Lamut have no sleds; they walk or ride. The saddle is placed way forward over the front legs of the reindeer, and the rider sits with his legs along the neck of the reindeer and uses his heels against the neck to drive or guide the deer. He has a single rein which is so long that it drags several meters behind the reindeer. He also carries a stick which he uses in climbing on or off the animal, and holds under his arm while riding. The women ride in the same way. Once I saw a beautiful riding stick, used by the woman of the house when the family moved. It had a square handle made of iron, with inlaid strips of copper and tin, and trimmed with a couple of red tassels.

When the Lamut move, they pack all of their belongings on the reindeer's back. A saddle like the riding saddle is first placed on the animal's back. The saddle rests on two cushions made from reindeer hair, and has raised rims in front and back. The front rim is usually trimmed with a couple of rows of beadwork. Clothing and small articles are put into bags of reindeer or leg skins, which are hung across the saddle and tied onto the reindeer. The tenting is rolled up and laid across the saddle, and the tent poles are arranged along the sides of the last reindeer. The baby is placed in a basket that looks just like a baby buggy with the hood up but without the wheels, and this is placed on one side of a white reindeer, with a big bag as a counterweight on the other side. The children who are old enough to sit safely in the saddle ride a reindeer that also carries some light bags on the sides. The reindeer are ranged in a long row, one tied to

the next one, and the woman of the house rides in front. An average family can carry all belongings on the back of eight or ten reindeer.

In winter the Lamut can move around much more freely than the Chukchi. Even when the snow is quite deep, the long-legged reindeer of the Lamut make good progress, while the Chukchi with their huge sleds soon get stuck and can only make very short trips each day in order not to overwork their reindeer.

The tent of the Lamut is well fitted to their way of moving. It is light of weight and the covering is easily folded into convenient rolls that can be placed across the reindeer's back. It is so entirely different from the large, shapeless, and lopsided tent of the Chukchi that I was quite surprised on my first visit to our Lamut neighbors in the woods. Their two tents are perfectly round, with a diameter of four or five meters. The upper part of the tent is a perfect cone, but near the ground is a vertical wall about a meter high. Most of the poles supporting the tent are thin and light and made to be transported on the reindeer's back, although they seldom have enough poles and have to cut new ones on the spot every time they pitch the tent. They leave those rough poles behind when they move, and in many places in the woods you find ten or twelve poles set up like a pyramid — the remnants of a Lamut tent. The tent covering is made from reindeer skins which have been prepared like chamois and are fairly light — very light compared to that of the Chukchi. For each tent they use three or four pieces, each made of many skins sewed together. The entrance is about a meter high and half as wide, and has a door made of a skin with a long-haired edge at the bottom. A little way below the top of the door the skin is stretched out by means of a long stick, which is used as a handle to pull the skin aside when entering, and also serves as a weight to close the door. Inside the

Among the Tundra People

door are two low partitions, one on each side to protect from the draft.

The fireplace is flat on the ground in the middle of the tent. All day long a huge fire is kept burning for both heat and light. There is a good draft, partly from the door and partly from a small opening under the covering directly opposite the door, so that the smoke whirls up to the smoke hole; the tent is practically free from smoke. Coming through the woods in the evening, frozen and hungry, after a long sled ride at a temperature well below zero, I cannot imagine a more inviting sight than the stream of sparks that whirls out of the smoke hole.

On both sides of the fire reindeer skins are laid on the ground, and you sit on these with your legs crossed. The woman of the house has her place near the entrance to the left as you enter. The left side of the fire is the choice one, where the husband sits, and where the guests are shown their places, while the children stay to the right. To the left, too, hangs the ikon. The Lamut are Christians, who never fail to cross themselves before the ikon as they enter a tent. Having done so, the guest is greeted by the man and his wife with handshakes or kisses. A stranger seizes the extended hand in both of his, but a close friend kisses his host on the mouth and the forehead and is, in turn, hugged and kissed. When I arrived with Gregory, I had difficulty avoiding being made the object of these loving greetings by his old relatives!

Above the fireplace there is placed a crossbar, from which one or two kettle hooks are suspended, and across which pieces of meat are hung to dry. Often there is another crossbar a little way from the fire, for drying clothing, caps, and mittens. The woman watches the fire and the kettles. The husband or sons always keep a big pile of cut wood right by the entrance. From time to time the wife goes out and drags in meter-long sticks, and leaves them directly

inside the door, so that you have to maneuver across them as you enter.

Indoors the woman wears an old top jacket, which is black from smoke and soot but has very practical sleeves. These are so long that they reach below the finger tips, where they are sewed together, but openings are made at the wrists. The woman usually puts her hands through these openings, but when she has to move a hot kettle or the like, she puts her hand into the lower bag and uses it for a pot holder. The men also wear old black clothes indoors. When they come home, they do not have to sit outside by the hour, like the Chukchi, and wait for the sleeping tent to be ready, and then take an extra half hour to beat every bit of snow off their clothes. The Lamut beats the worst snow off with a stick or a reindeer horn, goes into his tent, changes clothes in a hurry, and shortly after returning he sits snug and warm before his huge fire, while his wife takes care of his clothes, beats them free from snow and puts them out. If he is hungry, his wife pulls a kettle, which always hangs half-full of water over the fire, puts meat into it, and hangs the teakettle over the fire. Before long she can serve meat and tea. The latter is brewed in little China teapots and made weaker by adding boiling water, while that made by the Chukchi is boiled a long while in a big kettle.

The Lamut, like the Chukchi, live exclusively on reindeer meat. They never eat it raw and frozen like the Chukchi, but always cooked and warm. The stranger is given a clean plate, with nicely cut, boiled meat mixed with solid white reindeer fat. The Lamut handle their slaughtered reindeer quite differently from the Chukchi. They cut off the head and legs before skinning, and the skinning and cutting up are done inside the warm tent.

The Lamut spend the night under huge reindeer skins, which are sewed together to make heavy quilts. Their night clothes are as simple as those of the Chukchi: they wear

Among the Tundra People

none! At night the fire goes out, so the last task of the man is to prepare wood shavings for starting the fire the next morning. When they have no matches, they use fire-steel; they do not know how to drill fire. The tent gets very cold during the night, but that does not matter when you lie rolled up in warm, thick-haired reindeer skins. A night spent in a Lamut tent is very pleasant. You sleep in fresh, cool air, and you wake up just as the comfortable heat begins to radiate from the huge fire that the woman has just made. For breakfast you get warm, boiled meat, not cold meat with the indescribable flavor of the sleeping tent.

Before breakfast the Lamut wash by first filling their mouth with water and spraying it over their hands, and then filling their hands and washing their faces. As a whole, they are far cleaner than the Chukchi. When the women prepare the food, they frequently wash their hands by pouring water over them and drying them over the fire. Among the Lamut soap was a desired article, while the Chukchi only knew it by name. The Lamut cups and saucers are carefully washed, even underneath.

The living quarters make it possible for the Lamut to develop more home crafts than the Chukchi. Their beautiful fine clothes with embroideries represent endless hours of patience and show that the women use their needles industriously. The Chukchi women often order fur embroidery from the Lamut women, and it even happens that in the winter they send skins to their Lamut neighbors to be prepared, because the latter can work in their warm and well lighted tents, while the Chukchi women have to do their work outdoors or in the dark sleeping tent. One of the Lamut tools for scraping furs is the same as that of the Chukchi. They also have another tool, a long, heavy iron scraper with short, blunt teeth and a handle at each end, which is a splendid tool for making a skin soft and pliable. The Lamut dye only small pieces used for fur embroideries.

They are masters in preparing chamois from reindeer skins. The whole covering for their tents is made of chamois, and the best pieces are used for gloves, tobacco pouches, edgings, and straps. They often give pieces to their Chukchi neighbors, who, although they need the chamois, cannot or will not bother to prepare it.

During part of the winter the men are busy making snowshoes. In the middle of the darkest season the family breaks camp and, unhampered by deep snow, travels to Little Anyui, to cut wood for snowshoes. They use the wood of an aspen which splits easily, but nevertheless it is an accomplishment to make the wide, thin boards with only knife or ax. To even the boards they use a special kind of knife with a curved blade and a handle so long that it rests in the elbow joint and is steadied by the upper arm as they whittle toward themselves. After two or three weeks the men return with eight or ten pairs of boards, which must be bent by the fire and covered underneath with the leg skins of reindeer or moose. The women must prepare glue from moose-hide and must sew the leg skins together, but the men put the finishing touch on the job. The demand is good enough. Our Lamut neighbors could have sold many more snowshoes than they finished, and the pay is not too bad: one live reindeer a pair.

Besides being carpenters, most of the Lamut are also blacksmiths. From old files and broken knives they make new ones, but they are not artistic craftsmen. Their tools are too primitive — a large ax for anvil and a small one for hammer — but the worst is that they temper the steel of the knives too much or too unevenly, so that they break easily. Besides knives, they make pipe cleaners of old nails, mould pipe heads of tin or lead in wooden molds, make the mouthpieces for pipes, sharpen knives, and repair kettles. The copper work that I have seen them do with their primitive tools is very creditable.

Among the Tundra People

For all these little jobs they either receive direct payment in the form of a slaughtered reindeer, or they do the work without any prearranged fee and then receive a reindeer when the Chukchi have one of their big slaughterings. The Lamut I met were as a whole rather poor, owning only about one or two hundred reindeer each, and since that was not enough to support a family, they had to work to get extra meat. They also trade reindeer. Their own differ from those of the Chukchi by having longer legs, narrower heads, and longer necks. The Lamut claim that because of their long legs they are splendid for riding in deep snow, and the Chukchi praise them for their speed. I witnessed a good deal of bartering in reindeer, and one Lamut reindeer was worth three to five Chukchi reindeer.

The Lamut treat their reindeer much better than the Chukchi. They teach many of them to appreciate urine from the time they are little calves, and when the Lamut waves his leather cup the reindeer come running from all directions to get a few of the precious drops. The Lamut also use a lasso to catch the deer and throw it with the same assurance as the Chukchi, but they seldom use it to catch reindeer for riding or hauling purposes, because those reindeer are all quite tame. How they train their reindeer for riding purposes I do not know, but they manage to get very reliable mounts.

Many of the reindeer used by the Chukchi to pull their heavily loaded sleds are quite wild. They perform all kinds of antics before the sled, often standing on their hind legs and kicking their front legs frantically against the sled in front. A reindeer acting up like that can naturally not be used to carry a load on its back.

Some of the Lamut reindeer are trained in a special manner. They are taught to go ahead without a rider or a load in order to break a trail, and they are guided by a long single rein. The Lamut also use these reindeer to hunt

caribou. They drive them ahead toward the wild reindeer, which do not fear them, and the Lamut crawl up behind.

The Lamut spend the winters in the woods as do the Chukchi, but they do not stay in the same place. When there are no more odd jobs nearby, they leave for another neighborhood. In the spring they remain in the woods after the Chukchi leave, and hunt caribou and moose. Then the snow has a thin crust, which the reindeer and the moose break through, but the Lamut can move about easily and quickly on their snowshoes. Later on, when the calves are older, they continue their nomadic life. The Lamut we met usually spent their summers on the tundra near the mouth of the Kolyma River. In summer it is next to impossible for the Chukchi to move, because their heavy and clumsy sleds can be pulled only with the greatest effort when there is no snow on the ground. The Lamut, on the contrary, who ride and carry all their belongings on the reindeer's back, are even freer in their movements when the snow doesn't hinder the reindeer, so their life is nomadic throughout the year.

As hunters the Lamut are more enthusiastic than the Chukchi, but they are not very skillful. They have good Winchester rifles, but they seldom shoot more than a couple of moose or caribou every year. In summer they may shoot a few seal for the sake of the meat, but they do not care for the blubber. They do not hunt the mountain sheep. Since they do not use their horns as the Chukchi do, they do not go in for this strenuous chase, although the meat is excellent in the fall. I never heard of a Lamut killing a bear, although many told me of seeing bears. Probably they have the same superstition as do the Chukchi in this respect. Small game, like ptarmigan and rabbits, is left alone.

The Lamut are not better fur hunters than their neighbors, but they have one specialty: squirrel hunting. They kill many more with old flintlocks than the Chukchi with bow and arrow.

Among the Tundra People

The Lamut care little for sports, wrestling, or games. In winter they never arrange competitions amongst themselves, but a few join the Chukchi in theirs. One Lamut who owned a single driving sled and a pair of fast reindeer entered every race, and even came in with the winners several times. The Lamut told us, however, that in summer they had riding races over a short and smooth track. This must be a queer sport to witness.

The Lamut buy their wives just as the Chukchi do, but pay higher prices. A Lamut girl is expensive because, according to customs, the marriage cannot be dissolved if the partners tire of each other, or if one of them quarrels with the in-laws. The reason for this is probably that the Lamut are Christians and are married by a Russian priest when the deal has been closed. I was told that the bridegroom never moves to the tent of the bride. The wife's faithfulness is supposed to be beyond reproach, but being Christians does not prevent the Lamut from having two wives. One couple in our neighborhood was childless. Miccola, who was now past forty, and his wife had had two daughters, who had died when quite young, and the wife was so old that she could not expect to have any more children. That fall Miccola lived next to an old Lamut, Tsjuktsjanga, who had a grown, attractive daughter, whose condition became such during the winter that Miccola had to marry her. When we left, he was living happily with his two wives, who seemed to be on the best terms, but I have no idea if Miccola can be legally married to wife number two.

In the Lamut families that I visited the relationship between man and wife was the very best. They treated their children kindly and lovingly, and the children were taught to take part in the work from the time they were big enough to be of any use. Among the Lamut the man does not become a complete loafer as soon as his son is old enough to look after the reindeer, nor does his wife sit around lazy

as soon as she has a grown daughter or daughter-in-law in the tent. The Lamut are not exactly industrious according to our ideas, but at least they work a little even when their hair is gray – look after the reindeer and putter around with crafts or embroideries.

The young people show respect and kindness to the older ones, but not to the great – almost exaggerated – extent of the Chukchi, among whom an old man, just because of his age, is permitted to do any injustice to the younger ones. Among the Chukchi it would be inconceivable that a grown son would lift his hand against his old father, but this happened that winter in a Lamut family. Old Tsjuktsjanga, who is a sort of uncle to Gregory, came one day and complained with tears in his eyes that his grown son Piridaal not only had been obstinate and disobedient, but had even struck him. Gregory went home with him; the two other Lamut in the neighborhood, Miccola and Aarypkja, were called in, and in the presence of Piridaal the four of them discussed what should be done. They agreed that he should be punished by whipping. He had to unlash his pants and lie down on the ground in the tent, where his father beat him with two straps until the judges declared that he had had enough. When Gregory came home, he told everyone who would listen about the punishment, which he described in picturesque detail. After the whipping, Piridaal improved to the extent that he never struck his father, but he still nagged and scolded him.

The Lamut pay taxes. Already, when on board *Maud*, Gregory had told us with his most vivid gesticulation and mimicry, that he, a Lamut, had to pay lots of “rub,” rubles, to the Russians. In the spring he paid his taxes at Panteleikha: three rubles, one for himself, and one for each of his two sons! The Chukchi are tax-free; they have never even heard of market taxes. The difference is no doubt due to the fact that centuries ago the Lamut submitted to the Russians

Among the Tundra People

whereas the Chukchi never did, but on the contrary opposed every armed advance until the Russians voluntarily agreed to trade with them.

The Russians have granted a kind of self-government to the Lamut. They have their own chiefs who dispose of their quarrels. The lowest Lamut chief is called Tarjena. He wears a badge as a sign of his dignity, and is some sort of a justice of peace. He has no authority to punish, but he may talk the contestants into agreement and then scold the one he considers to be in the wrong. If the parties do not agree or refuse to accept his decision, they must turn to the higher chief, called Kapral. He carries a saber hung in an elegant sword belt across chest and shoulders, and he has the right to administer minor punishments with a stick. But if it is a question of a great crime, he has to turn the criminal over to the highest chief of the Lamut: the Staresta, "the oldest." The two former chiefs live among the Lamut and can be distinguished by their police-badge or saber, which they carry on special occasions. They are chosen from young Lamut who are trusted by the Russian authorities; they retire when they feel old. Our Lamut knew the two lower chiefs personally. The highest chief, Staresta, they did not know, but they said that he lived far away and mingled with the Russian officials as their equal, and was a very mighty man. But even his authority must be quite limited. He can punish only by whipping, and must, therefore, turn real criminals over to the Russian courts.

The Lamut Kjemeng was a "real criminal." Several years ago Kjemeng had caught a Chukchi trying to steal some meat. However, the Chukchi was a powerful man, who soon threw Kjemeng down. Kjemeng's son heard the commotion, rushed out, and, thinking his father's life was in danger, seized an ax and killed the Chukchi with a blow on the head. For this murder the father, not the son, was held responsible and, after much ado, was taken to Yakutsk to be sentenced.

Here he was held imprisoned for about a year, but was finally pardoned because he had killed in self-defense. According to his own story, he was given all kinds of compensations in the form of tea and tobacco for his temporary loss of liberty. It was he who told the marvelous story about the Czar ascending to the sun to ask what he should do about the Germans, and it was he who told us about all the wonders of Yakutsk, about sleds that rolled on wheels without reindeer or horses in front, about metal wires that were stretched high up in the air and through which you could talk, about Chinese and Japanese and other strange people.

Fights between Lamut and Chukchi are, however, quite rare. The poor Lamut whom we met accepted small encroachments from the Chukchi without murmuring, and gained by so doing. Fighting among the Lamut themselves is practically unknown. They prefer to settle their small disputes in a peaceful way and, with the exception of the troubles between father and son that I mentioned, I have seen no fights among the Lamut.

As a whole, the Lamut are far more interested in what goes on in the world about them than are the Chukchi. It probably would not be fair to say that they are more intelligent, because the native ability of the Chukchi may be just as great, but the Chukchi are self-sufficient and completely satisfied when their demands as to tea and tobacco are filled and their reindeer are thriving. The outside world does not interest them; on the contrary, they are suspicious of everything foreign, and they faithfully follow their old customs. The Lamut, however, enjoy immensely hearing about other people and foreign lands, and they like to mix with strangers. From Panteleikha they bring the news that the Russians have heard; thus, a Lamut told me that the world war had ended. They are more enterprising; they are not satisfied to buy tools and weapons, but they try to make some themselves or to repair them. For us it was fortunate that we met

Among the Tundra People

a Lamut like Gregory, because a Chukchi would hardly have agreed to let a stranger live in his tent a whole winter.

The Lamut are Christians; they always have been, they say, but their Christianity is somewhat strange. They have all been christened, and they bring their babies to Panteleikha to be baptized. For many years a Russian priest, now dead, lived among them as an equal, owned reindeer and a tent. The Chukchi also knew their Russian "epep-pile." Every Lamut wears a cross, and each tent has its ikon, its "ai-aeng," as the Chukchi call them. This is kept in a leather cover and has its place on the wall to the left as you enter. Every stranger coming into the tent bows in front of the ikon and makes the sign of the cross. The Lamut cross themselves before it morning and evening. The Lamut we met among the Chukchi did not pay attention to Sundays. They told us that those living farther away observed the Sabbath, on which they must not work but must cross themselves innumerable times before their ikons. The Lamut we met celebrate Christmas after a fashion. About the middle of winter they slaughter their best reindeer and prepare their best food. If on that day a baptized stranger visits them, he must be treated to the very best, and he must not leave empty-handed.

The Lamut believe that God lives in the sun, which they therefore honor greatly. When they die, their souls and bodies will go to the sun. Therefore, they must be buried in their prettiest clothes in order not to be turned back. If they wear their dirty indoor clothing, they will be shown to the devils of the underworld, together with those that have been bad here on earth. The devils have dwellings of iron far below the earth where huge kettles of resin simmer. Those who go there are put into a kettle where they continually suffer the greatest torture.

The Lamut bury their dead. They dig a shallow grave, and over this they build a coffin of wood into which the

body is placed in its finest clothing. What other ceremonies they have, and whether the deceased need to take anything along to the sun, I don't know.

Gregory was baptized and considered himself a Christian, but since he was living among the Chukchi he had to take part in all their offerings and observe all their customs, otherwise the evil spirits that threatened the Chukchi might just as well destroy him. But once in a while when, in spite of all precaution, he thought things looked pretty black, he comforted himself that he, of course, had his cross and the sun. Thus, we disregarded all the warnings of evil and went to the market at Panteleikha. Gregory did not doubt that he would go to the sun when he died. He would be buried as a Lamut and had, therefore, a splendid Lamut costume with beautiful pearl embroideries which he would not part with at any price, for if he should die suddenly and be buried in his ordinary Chukchi outfit, the sun would turn him away and he would be sent to the subterranean resin-pots. However, of his children, only the oldest one was baptized. The others had been named according to the custom of the Chukchi. But all of them grew up like real Chukchi. It didn't worry Gregory that they would also die like Chukchi, and so would of course not go to the sun, but their souls would travel to the great darkness of the north, where they would race with the Chukchi when the northern lights appeared in the sky.

Whether the Lamut are as superstitious, or perhaps I should say as deeply religious, as the Chukchi, I do not know. I visited them only occasionally, and did not live a long while among them as one of their own, but I do not think that they are as governed by their beliefs as the Chukchi are. I had occasion to observe only a few superstitious traits. For example, the Lamut also seek the advice of the reindeer's shoulder blade by putting an ember on it, burning a spot, and then seeing if it cracks a great deal when

Among the Tundra People

it cools. But they carry out all steps in their warm tents under favorable circumstances.

In some instances the Lamut pay attention to matters that do not worry the Chukchi, and vice versa. Nirganga, one of our Lamut neighbors, was going to move, and I went over to take some pictures, but when I arrived no preparations had been made. Nirganga told me that they would stay over that day because in the morning the fire had been crackling and this was a bad omen. The next day they moved, in spite of the fact that the temperature was way below zero, and that Nirganga's wife had had a baby only two weeks before. But the Chukchi do not care if the fire crackles. "We see no meaning in that," they say.

The Lamut do not consider fire holy, at least not in the same way as do the Chukchi. Anyone is free to borrow embers from them, and the ownership of fire is tied up with neither tent nor person.

The Lamut have an explanation of lightning and thunder which they have probably gotten from Russian priests. Lightning is fire that the sun, God, sends to the earth with a big crash in order to kill evil spirits and devils which play about there. Nevertheless, when the thunder rolls, they drive their dogs out of their tents.

The drum is found in every Lamut tent. The close relationship between Lamut and other Siberian tribes is clearly shown by the fact that the Lamut call a man who is clever at beating the drum and healing the sick, a shaman. This drum is quite different from that of the Chukchi. The frame is oval, not round, about forty by fifty centimeters, and across it is stretched a prepared reindeer calf-skin. On the back are fastened two crossed iron bars with which the drum is held, since the frame has no handle. A metal ring is attached to the back of the frame, and on this ring a number of little rings are hanging, which jingle when the drum is shaken. The drum stick is flat, thirty or forty centimeters

long and three or four centimeters wide, made from flexible wood sewed into leg-skins. At the handle it has a big tassel, and on the outside it is beautifully trimmed with fur embroideries.

With the drum goes a cap which is quite a masterpiece. It is small and round and completely covered with beads or fur embroideries. On top there is a tassel standing straight up, around which several rows of fringes hang down, some in the shape of red and blue animal tails, others in the form of human figures, with beads for eyes and beads denoting hands and feet. From the lower edge of the cap hang heavy fringes which, when the cap is on the head, almost hide the face. In front the fringes are about thirty centimeters long, reaching to the chin, but in the back they are so long that they reach the shoulders and hang down the back. Among them there are also a few human figures at intervals.

I was unable to barter for such a cap or for any large pieces of bead work because I had no beads myself. There had been no beads in Panteleikha for several years; consequently none of our neighbors would part with their precious things.

The Lamut use the drum much in the same manner as the Chukchi. The medicine man, the shaman, goes into ecstasy during the drumming and then he can see what happens far away, what will happen in the future, or he can heal the sick. It is quite characteristic that when I asked Gregory to tell me the Chukchi and the Lamut names for a shaman ("medicine man"), he said that the Chukchi called him "aeng-ae-aegnelin," the Lamut "shaman," and then added that the Russians say "doctor."

The shaman also has power over devils and evil spirits. He can use his abilities for the good of others, but woe unto the shaman who uses this power to harm others. He will be expelled from the sun.

Among the Tundra People

I had an opportunity to be present at a Lamut shaman performance. When we reached our final winter quarters, Gregory got one of his Lamut relatives, Tsjuktsjanga, to move over to us for about a week, in order that I might have a light and warm tent to stay in until my own winter hut could be finished. One evening Gregory asked Tsjuktsjanga if he wouldn't beat his drum for him to see what kind of winter weather we should have. Tsjuktsjanga was willing, in spite of the fact that I was present. Besides Gregory and myself, two of Gregory's children and Tsjuktsjanga's wife and children were in the tent, that, as usual, was well lighted by the huge fire in the middle. The wife fetched the drum and warmed it by the fire. When it was warm, Tsjuktsjanga put on the cap, lifted the fringe up in front of his face with his left hand, while with the right he made signs before his mouth and forehead. Then he let the fringe fall down and took the drum.

He started slowly and calmly. He held the drum straight up with the edge against his knee, so there was not much sound to it. Gradually he increased the rhythm and the drumming rose to wild whirls. During these he held the drum horizontally free in the air and beat from below with eminent skill. This gave a far deeper and louder sound, and there was more music in it than in the drumming of the Chukchi, since Tsjuktsjanga used his drumstick with far more variation than I had heard any Chukchi do. The Chukchi always beat in monotonous, uniform tempo, but with greater or less force.

Tsjuktsjanga kept silent a long while, then he started to smack his tongue and shortly afterwards to sing in the hoarse voice of an old man. His song was entirely different from that of the Chukchi, the rhythm was different and there was more melody to it. I could clearly distinguish words, but I understood nothing because the words were Lamut. When he beat the drum softly, it sounded like a

faint accompaniment to the song, but often the song was completely drowned out by the violent whirls. At first he was sitting with his right side toward the fire and with crossed legs; then he started to move slowly so that he turned around once with the sun.

After half an hour the drumming became weaker and weaker and finally died out completely, while the singing continued. Gregory offered him the pipe, which he accepted and took three deep puffs from it, each time raising the pipe over his head. I thought that he had finished, but far from it. He didn't even notice his wife offering him a fresh pipe, but seized the drum and continued the song. He got up and started to walk around the fire in a sort of dance step, drumming violently while bending his knees and twisting his body back and forth. When he had gone once clear around the fire, he sat down facing me, but he continued the song with an occasional interruption to say a few words. I felt uneasy when he repeatedly pointed at me with his drumstick, which he raised up before his face, and I was startled when he suddenly threw the stick at me. But Gregory said that this did not mean anything.

After getting his drumstick back he continued drumming, but in between he talked a great deal, answering questions from Gregory and his wife, asking them questions, or muttering to himself. He used his own language mostly, but once in a while he spoke in Chukchi, asking, for instance, "What is my name?" Gregory answered, "The walking one." Later Gregory explained that this was a question always asked by the shaman, and must be answered by "the walking one," that is, the healthy one, because he who walks is healthy. He also explained that Tsjuktsjanga had seen that none of those present would die that winter, and that Gregory intended to sacrifice a big white reindeer to the earth that winter. This was indeed Gregory's intention, because he had to do everything he could to prevent either

Among the Tundra People

his or my becoming ill that winter, but he had never mentioned this idea to Tsjuktsjanga.

After an hour or so Tsjuktsjanga's wife time and again asked him to stop, but he had worked himself into such an ecstasy or trance that he heard nothing. Then she went over to him, blew on his cap and took it off, and took the drum away from him. He continued to sing, however, and sat with his eyes closed, quite out of his head; or at least, he played the part splendidly. Then his wife bent over to him again, and blew on his head, neck, and eyes. He stopped singing, opened his eyes, and looked around with a confused gaze, as if he had just awakened from deep sleep and did not quite know where he was. But after a few moments he was himself again, the same old talkative man as before.

Our Lamut neighbors left us in the beginning of March, some to go to Little Anyui to hunt moose, others to go to Panteleikha, where I met them later on. My acquaintance with them was rather superficial, but it was very intriguing to watch two tribes, the Chukchi and the Lamut, living side by side, but with clothing, tents, and mode of living adjusted to nomadic existence in entirely different manners and with widely different means for protecting themselves against the intense cold of the Siberian winters.

When one observes the two peoples living together in the woods, it cannot be denied that the Lamut seem far superior. They make use of the tremendous supply of wood, and build their tent so that it is always heated and well lighted by the huge fire, while the Chukchi use wood for cooking purposes only, and heat and illuminate their small and stuffy sleeping tents by means of a smoky oil lamp. The Lamut sleep in an airy tent and protect themselves against cold by quilts of reindeer skin, while the Chukchi try to keep the heat within their "skin-box," and wake up in a pungent atmosphere. But one cannot base a comparison exclusively on their winter life. The Lamut cannot start to

Among the Tundra People

move to the barren tundra until the weather becomes so warm that they do not need the huge amounts of wood to heat their tents, and they must leave early in the fall in order to reach the woods before the cold weather begins. The Chukchi, on the contrary, can leave the woods early enough to spend the month of May, when the reindeer are calving, out on the tundra, and they do not have to leave the coast until late in the fall. Many who live farther east spend the whole winter on the tundra where there are no trees but only shrubs to give the necessary fuel for cooking. They live here under conditions which would not suit the manner of living of the Lamut. The Chukchi way of living is adapted to the tundra, where there is barely enough wood for cooking purposes, and not sufficient for heating a large tent. No doubt it is true, as their tales claim, that in earlier days they did not move to the woods in the winter time, but lived all year on the tundra.

DEPARTURE

We broke camp at our winter quarters on the ninth of March, after having lived in the same place for three months, but not until two weeks later did we really start north. Those two weeks we spent close by our winter quarters, while the young men were busy picking out their reindeer from the different herds.

Most of our neighbors had gone north ahead of us, so when we finally got ready to move we had a wide trail to follow. Meanwhile, however, Gregory, Kaankalj, and I had gone to the yearly market at Panteleikha, entrusting the reindeer flock, tent, and sleds to the young people. Kaankalj and Gregory returned earlier than I. They reached home by the middle of April and met the others near the Pogynden River at the northern border of the woods, while I had continued home slowly, having joined other travelers. When we reached the edge of the woods, I left them and went on alone to find Gregory, who was supposed to have his tent near one of the campsites of the previous fall.

I followed the tracks of a sled, but when this turned off in a wrong direction, I took a short-cut across a hill. The sun was hot; my reindeer, especially the two that pulled the

Among the Tundra People

heavy sled with my instruments, were exhausted and had to rest every ten minutes; I had forgotten my snow-glasses, and my eyes were burning from the intense glare from sun on snow; time and again fresh tracks of wolves gave me an uncomfortable feeling in the pit of my stomach; and I felt utterly lonely. Finally I reached a point from which I could see down into the valley where Gregory was supposed to be, but there was no tent. I continued on along the hillside, and the next time I could get a view of the valley I saw a long row of sleds that had stopped – a Chukchi family moving! Happy was I! I left my instruments on the hill, and drove with the light sled and my four reindeer down into the valley to ask where to look for Gregory. He was close by, they said, on the hill just beyond where I had left my other sled. After a cup of tea I returned to my sled, and as I started across the hill Gregory came driving toward me! When we parted he had promised to meet me in a couple of days, and I had been looking for him every night, but, of course, hundreds of things had interfered. Only Kaankalj and his little girls were with Gregory; all the young folks had gone north to the Rauchua River with the herd, and he had only been waiting for me. So, after a couple of days, we started after the others.

I had decided that from the Rauchua I should go back to *Maud*, in order to arrive a week or two before the Chukchi would reach Ayon Island. My decision became firmer every day, because now as the nights were growing lighter the irregular habits of the Chukchi became almost unbearable. That they moved at night and slept during the day was to be understood, because in the daytime the snow was melting and sticking to the runners of the sleds; but their complete disregard of all division of time, even when staying in one place, was too unpleasant. One day they would sleep until noon, and would not crawl under their skins again until the following morning, or they would sleep to midnight, get up

Departure

and eat and go to sleep again in the morning. Day and night were ideas that no longer existed, as far as they were concerned.

When we had stayed eight days near the Rauchua, I parted from my friends for good. Gealjin and I left on the evening of May 15 and reached *Maud* at night on May 17. We used a wonderful team of dogs which Gregory had scraped together from all the neighbors, but he was himself prevented from going along because of the boil already mentioned.

For seven and a half months I had lived among the Chukchi, most of the time as one of their own, and, except for some foolish talk which had gone on during the middle of the winter, I met with nothing but kindness and friendliness. I often wonder whether it might not be desirable for them to stay as they were, to retain their happy mode of living and thinking, and to continue to answer impertinent questions about their customs with their laconic self-sufficient explanation: "Mure Chauchu ennenguadlin" – "We Chukchi are that way."

REFLECTIONS ON THE LIVES OF THE CHUKCHI

A Chukchi boy is born to a life in harmony. He grows up in surroundings steeped in traditions and customs. However, these customs are not so rigid that his initiative is stifled and that he lacks opportunities to develop his special ability. He will not have the conveniences of a technical civilization, but without too great effort on his part the reindeer will supply all the essentials of life: clothing, shelter, and food. He may fear illness for which he knows no cure except the chanting and drumming of the medicine man, but he will not have to face decisions as to how to make a living, and he will not have repeatedly to adjust himself to new surroundings or to the use of new technical inventions. He will not select his bride; his parents will take care of that, and in doing so they will protect him against many of the real and imagined wounds suffered on the thorny path of love. His outlook on life will be narrow, and he will know none of the thoughts of our great philosophers, but he will be brought up in a faith which in old age gives him poise and peace of mind.

Let us call the boy Tangak. Little Tangak will be cuddled by his mother; his grandfather will carry him proudly on the

Among the Tundra People

shoulders, and at night his father will play with him. When his parents go visiting, he will be tucked snugly into several bags of reindeer fur and will be lashed to his mother's sled. When he cries he will be nursed, or his mother will examine the flap between his legs and if necessary she will change the moss. He will be weaned gradually and slowly. His mother will cut off a small piece of reindeer tongue, chew it and put it into his mouth, and when he is a little larger he will get a piece of meat in his hand. Even when he is four to five years old and has a baby sister, his mother will not refuse him some of her milk.

At that age he is already an active member of the household. When a big slaughtering takes place, he solemnly scatters pieces of reindeer meat on the snow as sacrifice to the soil and the woods, or he splatters a few drops of blood on the ground. From the time he was born he has been made to feel that he belongs. He has the security of the home, which may often be lost in our hectic life.

It is expected of him that he adjust himself to the age-old customs, and he is helped to do so much more by the example of his elders than by admonishment or punishment. He will be punished only when he neglects duties which he is old enough to assume. The things he has to learn are few. He must learn a very limited amount of cleanliness, and this is accomplished without any harsh words from his parents. He also must learn respect for his elders, particularly for the privileged old people, and he does this easily by imitating the behavior of the grownups.

Most important of all, Tangak must learn his trade as an owner of reindeer, because when he starts to raise a family he must manage his own herd, and soon afterward he may have to take over his father's herd and care for his parents.

His father makes him his first small lasso, which he carries in his belt as every man does, and which he throws after twigs or reindeer horns. He learns his trade as his

Reflections on the Lives of the Chukchi

father's helper in competition with boys his own age. He never has the confusing experience that he is not permitted to play with the boys from "the other side of the track," who have the most fun. He is no better and no worse than anybody else.

When Tangak is fourteen to fifteen years old, he moves together with the girl who has been selected for him, and they live happily ever after. He enters upon active years when he and his young wife follow the reindeer herd, when he covers long distances on foot to find better grazing for the deer, when he spends days and nights with the herd to guard it against the wolves, and when week after week he helps separate herds that have become mixed together. But it is also a life full of lovemaking and fun, wrestling and racing.

If Tangak is strong and shrewd, and if he has an industrious wife, he can increase the size of his herd by hard work and favorable trading; but if he is easygoing and has a lazy wife, he is liable to lose what he has, together with the respect of his tribesmen. If he is irresponsible and breaks the established customs, there are no authorities to punish him, but he becomes an outcast: his wife may leave him, he may have to find shelter in the tent of some relative, or – worst of all – he may grow old without children to care for him.

If he is shrewd and has enough musical talent to sing and beat the drum better than others, he may become a medicine man with great power. He can rise to the greatest possible prominence, for there exist no inherited privileges except such as go with inherited wealth, but success in spite of this lack is within the reach of a clever boy from the poorest tent.

Tangak and his wife have three major interests: reindeer, trade, and family. These interests are universal and, translated into our terms, they comprise how to make a living, how to obtain some of the luxuries of life, and family life. The

Among the Tundra People

topic of the family seems to have changed little, and when Mrs. Tangak and the wives from the neighboring tents squat around the fire with tea cups in hand, and exchange the latest news about illness, marriages and births – and perhaps departures from the straight and narrow path of domestic faithfulness – the conversation may have a great similarity to that in Mrs. John Doe's living room when some of the ladies in the neighborhood pay an afternoon call. When Mr. Tangak and his friends tell about the accomplishments of their sons, you might imagine yourself listening to proud fathers anywhere in the world.

The direct similarity does not go much further. Our organization has become so complicated that only in the small-farm rural districts has some of the simplicity of the primitive society remained. But even there the questions of making a living and obtaining some luxuries have become complicated by the necessity of delegating power to persons who have to deal with common problems. The questions of formulating and maintaining laws have become major topics. Fundamentally law-making is part of the problem of making a living, but in our age of specialization it often looms as a large and important subject of its own. Tangak and his wife do not need to delegate any power to others: they are their own masters; they have the say over their own reindeer herd which is their only means of support. Now and again they may have to make friends with an elderly, willful neighbor who may misuse his privilege as an old person and may refuse to let them pick out reindeer which have strayed into his herd, but the woods are wide and they can always leave an undesirable neighborhood.

Tangak himself is fundamentally honest. Stealing means depriving another man of his livelihood and so is not done. He is generous and willing to share what he has with the needy. Those will not beg for anything, but they will state what they are lacking, and such a statement requires

Reflections on the Lives of the Chukchi

consideration by one who has something to spare. Tangak is a reliable person. You can trust his word and you can be sure that he will not forget a promise, but he may often annoy you because he has no concept of time. If he promises to carry out a task tomorrow, you can be certain that the task will be carried out, but you soon learn that it will not be carried out tomorrow. I have occasionally wondered if the Chukchi really have a word for "tomorrow," or if their word "eergattic" should not be translated by "at some later time." Their lack of respect for time can easily be misinterpreted as unreliability, and is in all events very irritating to one who has been brought up to be a slave of his watch.

Tangak and his wife are not overly clean, his wife particularly not, but cleanliness is to a great extent a matter of habit, and if the habit has never been established one can evidently live happily without ever taking a bath or touching a cake of soap. Their food is monotonous, but strange as it may seem in these days of vitamins and balanced diets, a diet of nothing but reindeer meat morning, noon, and night appears to be perfectly healthy. When I joined the Chukchi, I reasoned that after all they are our remote cousins, and if they could thrive on reindeer meat, so could I, provided that I never refused any of their food. This was not difficult among the Reindeer Chukchi, because most of their food was tasty and sufficiently varied, but later on, when I traveled along the coast and could get nothing but half-rotten fish or walrus hide with an inch of rancid blubber, I had to be very hungry to force some down. I learned, though, that in these circumstances the taste actually changes and that fresh seal blubber, which I ordinarily thought revolting, became a delicacy.

When Tangak visits a trading post or a ship, he appears much to his disadvantage. He is very uncomfortable on a chair, his warm clothing bothers him, but he tries to be polite and bursts out in a silly laugh whenever he believes

Among the Tundra People

that he is expected to be amused. But meet him in his own surroundings and you get the impression of a very efficient person, who has poise and dignity and knows how to take care of himself. He has an amazing knowledge of the reindeer and its habits, he has a name for every bone in its body, and he knows the tundra and the woods where he has lived all his life, and can find his way no matter how dark the night or how bad the weather. His knowledge is based on experience and memory, but since he is unable to generalize his experiences, he is utterly helpless when he leaves the areas where he grew up. We have learned to generalize, and when we once have mastered the peculiar difficulties of traveling over the tundra or through the woods, we can manage equally well wherever we go.

Could Tangak have achieved the same mastery if he had had the benefit of the education offered our boys? Or, to put the question more broadly: could Tangak have gone as far as we expect our boys to go if he were brought up in our environment? That is a question that I should not try to answer, because it is way beyond my field, but, still, let me say that I do not believe Tangak capable of success in our society. Russian teachers on the coast told me that the small children were as bright and learned as fast as the white children, but the Chukchi children's capacity to add to their knowledge appeared to dwindle after they had reached puberty. It stands to reason that there are differences not only among the inherited physical characteristics but also among the inherited mental traits.

The scattered comparisons I have made so far between the Chukchi and ourselves have dealt mostly with the material aspect of life, but to the Chukchi his beliefs and superstitions are so interwoven in the pattern of daily life that these beliefs are as important to his existence as food and drink.

In trying to find a basis for a comparison with our beliefs, I wish to discriminate between what, I think, should

Reflections on the Lives of the Chukchi

be considered the Chukchi concept of nature and what should be called their religion. It appears to me that the central features in the religion of the Chukchi are belief in an immortal soul and the firm conviction that the aim and purpose of life is life itself, the fullness of experience in the struggle of existence, in good-natured or bitter competition in gay gatherings and in love. The body is only the frame of the soul. During youth the body grows in strength, in mature years it reaches full capacity to enjoy life, and in old age it becomes weak and useless. The soul, however, always develops, expands and increases through all experiences of life, and when the body becomes old and helpless the soul leaves it in order to continue its existence in the world of the spirits.

The Chukchi code of morals is closely linked with this religious belief, since every person who offends the established customs is, by action of his tribesmen, prevented from enjoying life in full measure; his privilege of taking part in festivities is limited, and his chances of marriage are reduced. But any disaster that happens to him is also regarded as intended punishment by the spirits, and into the Chukchi concept of morals enter, therefore, their ideas about nature, which we are likely to call superstitions.

The Chukchi concept of nature is fundamentally based on fear of unexpected and unavoidable events. To them the regularly repeated natural phenomena, the march of the sun across the heavens, the changes of the seasons, and the cycle of life, represent no problems, nothing of importance. These things happen and have always happened and have no emotional connotation. The hostile nature manifests itself in the unexpected events, the catastrophes, the storms, the heavy snowfalls, the diseases among the reindeer or among the Chukchi. According to our views, the Chukchi do not understand these manifestations, but they have formed a system of their own which explains nature to their

Among the Tundra People

satisfaction, by means of which they think they can protect themselves against the catastrophes. They have populated nature with spirits, and they consider every unforeseen happening as evidence of the direct action of evil spirits, but these demons are of their own kin, and they can, therefore, approach them and negotiate with them; they can hope that their sacrifices will be accepted by the spirits, and that the spirits will show mercy or become reconciled if they have been offended. Here the medicine man enters into prominence, owing to his knowledge of the spirits and his ability to talk to them.

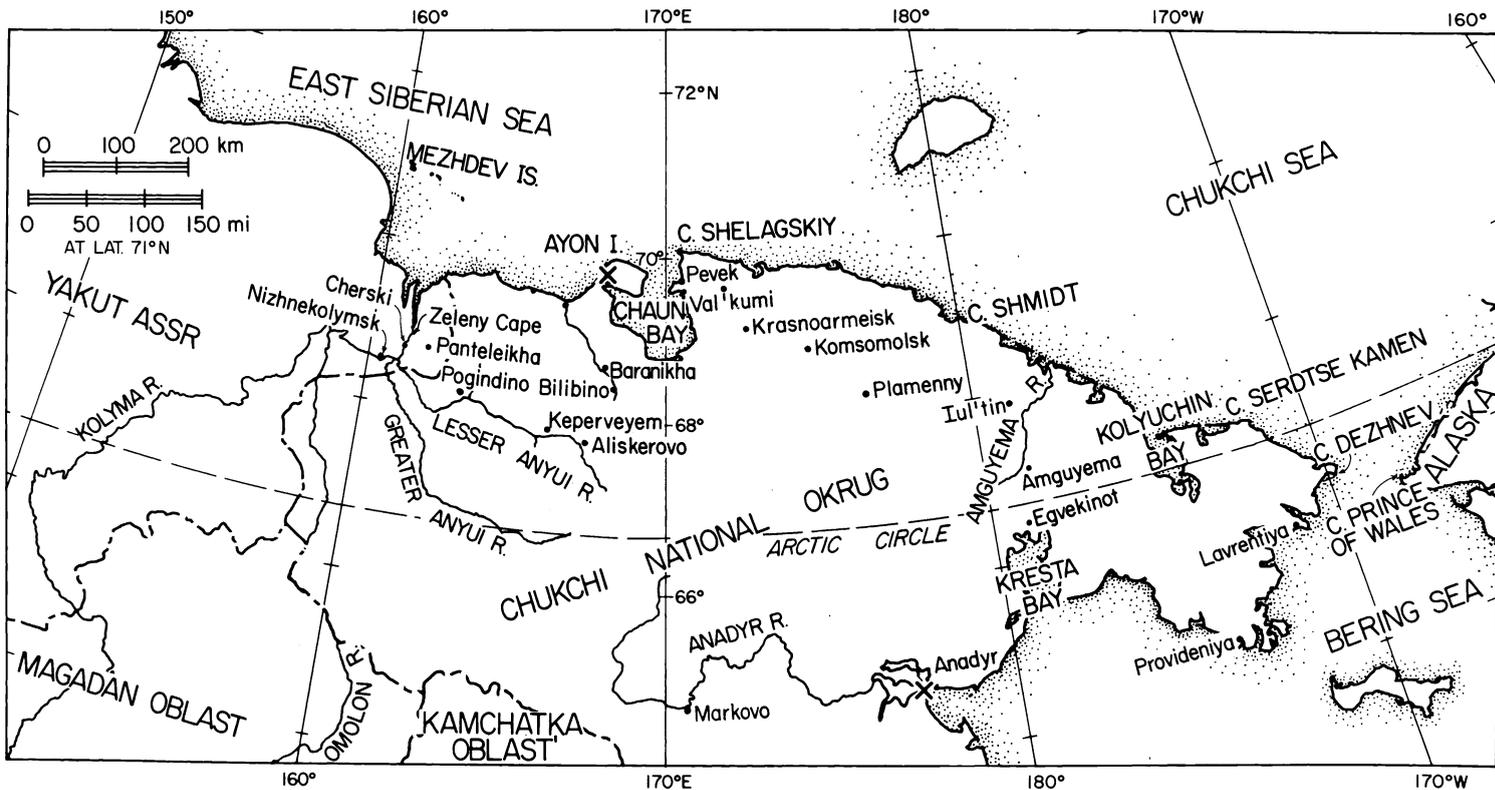
If one employs the term religion in the meaning in which I have used it here, it is evident that the ceremonial sacrifices of the Chukchi and the performances of the medicine men have nothing to do with their religion, but have their roots in the Chukchi concept of nature. In our civilization the men of science and medicine are the successors of the medicine men of the Chukchi. Our scientists have removed the fear of demons and have taught us what we call the laws of nature – and in which most of us believe as unreflectingly as the Chukchi believe in their evil spirits.

Having wandered this far from my own field, let me take one more step and suggest that the purpose of science may be defined as: “to remove the fear of nature.” Basically we all feel that we live in a hostile environment which is full of dangers and hazards, and a great many of our efforts in life are directed toward creating security in this environment. To create such security man must be able to predict future events, and at each stage of civilization this ability has been developed to a lesser or greater extent. The Chukchi have learned that day follows night, that the seasons change in an orderly fashion, and that man is born, grows, and dies. They have no fear of the dark or of death, but they have not learned that the apparently random events in nature follow a pattern, or that illness often can be cured. They are afraid

Reflections on the Lives of the Chukchi

of inert nature, but to some extent they overcome their fear by appealing to the spirits and demons to whom they ascribe every unexpected happening. In our civilization science has the task of predicting the future; in fact, every scientific theory is tested by its power to make correct predictions. Our science has been so successful that we have advanced far along the road toward removing the fear of our inert surroundings. We have harnessed forces of nature and have learned to use natural resources. For these reasons we are likely to look upon the Chukchi as being inferior to us.

However, man is not surrounded by the inert nature only, but also by his fellow men. Security in life depends as much upon the relations to other human beings as upon knowledge of nature and its laws. The Chukchi have no fear of their fellow men; they have from birth to death a community security that more than compensates for their fear of their natural environment. Our civilization is off balance; what we have gained in some respects we have lost in others, and in spite of our scientific accomplishments we feel less safe than do the Chukchi. We shall have no right to consider ourselves superior to the Chukchi until we have again learned to live according to ethical principles which have been formulated to remove our fear of man.



HISTORY OF THE CHUKCHI

The Chukchi, according to the 1970 census, are about 12,000 people, most of them living in the Chukchi National Okrug (District or Reservation) established in 1930 in the northeast corner of Siberia. About a thousand of them live just outside of the okrug among the Koryak on the neck of Kamchatka, and a few hundred live in the valley of the lower Kolyma in the Yakut Autonomous SSR. They are one of the largest of the twenty-five "Small Nationalities of the North" of the Soviet Union. Among the Chukchi live about 2000 other indigenous people, mostly Eskimo and Lamut. In addition, about ninety per cent of the present population of the okrug are recent immigrants, Russians and others from western and southern parts of the USSR.

The first recorded encounter of Europeans with the Chukchi was in 1644. Shortly before 1600, groups of enterprising Russians began crossing the Ural range and pushing eastward, seeking natives with whom they could trade profitably for furs. They usually had military escorts charged with extending the rule and protection of the Czar to the natives and collecting tribute for him in the form of furs. A northern route was by sea in summer, with side trips up the

Among the Tundra People

rivers to native villages. A southern route was close to the headwaters of the great rivers flowing into the Arctic: down an east-flowing tributary, up a west-flowing tributary, and by portage over the divide. The rate of travel was slow; a trader did not count on returning to Russia the same year he departed. In 1644 the vanguard of the host traveling by sea reached the Kolyma river and established a post called Nizhnekolymsk (Place on the lower Kolyma).

In 1649, a party led by cossack Dezhnev sailed eastward from the Kolyma and discovered and sailed through Bering Strait. A great storm blew them to the south. They finally landed near Cape Olyutorskiy and traveled overland northward to the Anadyr river. A few hundred kilometers upstream, at a site close to the present town of Markovo, they established winter quarters which shortly became a trading post named Anadyrsk.

For a century until it was abandoned, this was military headquarters for efforts, ultimately unsuccessful, to repress recurring Chukchi revolts against paying taxes. To this day the lower Kolyma and the lower Anadyr roughly correspond to the two ends of the boundary of the Chukchi country.

The environment at the time of Sverdrup's visits in 1919/21 was much the same as it had been for three hundred years and an indefinite period before that. As long as the immigrant population was much smaller than the native population (until 1935 or so) and twentieth-century technology, especially air transport, had not reached the CNO, the outstanding characteristics of the environment were three: it was remote; it was sparsely populated; and it was extremely inhospitable.

The Chukchi National Okrug is about 1400 kilometers long measured along the Arctic Circle and about half as wide at longitude 175 degrees east. From the middle of the okrug it is about 1900 kilometers to Yakutsk, the nearest city of any size in Sverdrup's time (in 1911 it had a

population of 8200). Yakutsk was then about a thousand kilometers from the nearest point on the Trans-Siberian railroad. The total distance from Markovo or Bilibino to the nearest railroad station was about the same as from New York to Salt Lake City.

Before the air age, the best access to the Chukchi country was by sea, in summer. Between 1867 and 1916 the coast of the Chukchi peninsula from Kolyuchin Bay to Holy Cross (now Kresta) Bay was well known to American whalers and traders for furs, seal oil, and ivory. However, this gateway was not of much use to Russia until the Trans-Siberian railroad was built because the whole Pacific coast including Vladivostok was equally remote from Moscow.

The okrug with an area of 800,000 square kilometers is larger than Texas, and half as large as Alaska, or in other terms, as large as Alaska north of the Yukon. In 1919/21 it contained no more than 15,000 people, and the average population density was considerably less than that of northern Alaska today.

The country was inhospitable, not so much because of the severity of the winters as because of the brevity of the summers. The people of the far north have been able for millenia to cope with the cold, but staple crops will not dependably mature during an average summer of ten frost-free weeks. Even with modern technology, the industrial populations north of 60 degrees are almost wholly dependent on imported foodstuffs. As Sverdrup noted, the Lamut obtained part of their meat by hunting moose and caribou, but there is not enough game nor enough freshwater fish to support even the 15,000 people in the Chukchi country in Sverdrup's time. Wild berries, roots and greens are tasty and valuable sources of vitamins, but not staples.

The only successful form of agriculture in the far north is reindeer herding. It was developed by prehistoric people and is now found scattered along the northern edge of Asia

Among the Tundra People

and Europe from Bering Strait to Scandinavia. It made the settlement of the far north possible long before 1644.

In fact, it has had an impact on the history of the United States. In 1890, Dr. Sheldon Jackson, General Agent for Education in Alaska, made a voyage along the Bering Sea and Arctic coasts to locate sites for schools. In the Eskimo villages he learned about the increasing poverty of the Eskimo due to the inroads on the whale and walrus populations made by aggressive commercial hunters from the lower forty-eight. In several landings on the coast of Siberia he noted the well-being of the Chukchi and Koryak reindeer herders.

On his return he obtained approval from the Department of the Interior to purchase reindeer and hire herders to train the Alaska Eskimo in reindeer husbandry. Congress approved but refused to appropriate any money. Dr. Jackson obtained \$2000 by public solicitation and in 1891 bought 16 reindeer. In 1892 with additional contributions, he bought 171 head. In 1893 Congress appropriated \$6000. The final total number of reindeer imported was 1280. Several Lapp herders were hired to train Eskimo in the art of herding.

By 1917, the herd had grown to 95,000 head and provided the Eskimo not only with food, but also with considerable cash income. Ernest Gruening, former Governor of Alaska, wrote: "The most important single contribution made to the natives in 1900-1950 was importation of reindeer, which saved thousands of Eskimos from starvation."

From about 1890 to the present, every census has reported about 12,000 Chukchi, plus or minus a thousand. The reasons for this apparent stasis are not known. However, the census takers often have had difficulty in deciding the nationality of an individual. Sverdrup noted and the ethnographers have abundant evidence that intermarriages have long been common among the local nationalities (Russian,

Eskimo, Chukchi, Lamut, Koryak, Yukaghir, and others). Personal appearances are similar. Modes of life are largely the same. Many people use more than one language. Specifically among the Chukchi, some individuals of mixed ancestry apparently claim to be Russians to enhance their status, while others claim to be Chukchi to escape taxation. In addition, it must be very difficult to track down a few thousand people mostly in small moving groups in this vast roadless wilderness.

In about 1890, W. Bogoraz, the great ethnographer and authority on the Chukchi, estimated the whole population as 12,000, of whom three quarters were reindeer herders and the remainder lived along the coast in about sixty villages from Cape Shelagskiy to Kresta Bay, interspersed with ten villages inhabited by Eskimo. The coastal Chukchi, like the Eskimo, lived by fishing and hunting sea mammals. As Sverdrup noted, the inland and coastal Chukchi were closely related by marriage, by trading and by practicing each other's occupation from time to time.

This was the condition of the Chukchi in 1922 when the Soviet Union reoccupied northeastern Siberia after the Japanese withdrawal. Between 1922 and 1975, about 110,000 immigrants – “Russians,” including also Ukrainians, Byelorussians, Tatars and a few others – settled in the Chukchi National Okrug. Most of them arrived after 1959. With them came twentieth-century technology, electric power, radio, schools, medicine, prepared and preserved foods, a myriad of industrial products and, above all, air transportation.

Geological surveys in the twenties confirmed the presence in the okrug of potentially valuable mineral resources. By 1934 the first large mining operations were underway in Krasnoarmeisk (map 3). Since that time mines and auxiliary facilities have been established in fifteen or twenty localities in two areas: one between the lesser Anyui and Chaun Bay,

Among the Tundra People

and the other between Chaun Bay and the Amguyema. The chief products are tin, gold, tungsten, and mercury. Auxiliary industries include refineries or concentrating plants, ports at Cherski, Pevek, Provideniya, and Egvekinot, and airports at Keperveyem, Cape Shmidt (named for the energetic first chief of the Northern Sea Route Administration), and Anadyr. Anadyr is also the administrative center of the okrug. In 1976 a nuclear power plant at Bilibino began operating at its designed capacity of forty-eight megawatts. Since production of strategic minerals and even the number of employees is sensitive information, there may be other activities and other sites not publicized.

Widespread recruitment efforts in the Soviet Union have produced the immigration mentioned above. In 1975 about eighty percent (87,000) of the immigrants were reported as urban dwellers, presumably living in industrial settlements like those mentioned or shown on the map, of which all together there may be twenty-five or so. Only about two thousand of the natives are reported as urban dwellers.

Maps and other publications do not show any all-season roads in the okrug. A winter road usable by heavy vehicles when the ground is frozen all the way down to the permafrost connects Iul'tin with the port of Egvekinot. A much shorter one connects Krasnoarmeisk with the port of Pevek. Siberian rivers carry barge traffic in summer, but the only river in the okrug that does this is the Anadyr.

Air transport is the third member of the internal transport system. It can operate at all seasons, though not in all weather. It requires airstrips, which are expensive to construct and maintain in permafrost country. The transport system as a whole appears pretty skinny for a population spread over so much country, and so far from sources of supply.

ERADICATING ILLITERACY

The Russians reoccupied Siberia in 1922 with the full intent of establishing schools for all the citizens. The first obstacle in the north was that only one nation, the Yakut, with half a million people, had a written language. Among the others, only five, including the Chukchi, had populations as large as ten thousand people. The Chukchi were representative in that even their spoken language was very limited in scope, sufficient for people who lived in small nomadic groups or coastal villages.

In 1937, the Russian ethnographers and linguists produced a “Uniform Northern Alphabet” based on the Russian Cyrillic letters with other characters added to represent sounds not recognized in the Russian alphabet. This was considered sufficient to supply a phonetic written alphabet for each of the small nationalities in the north. Russian was bound to be the common language of all the nationalities of the Soviet Union, and this step would hasten the acquisition of Russian. It would even accelerate the process of expanding a native language by the addition of Russian words where there was no native equivalent.

The Soviet Union published and distributed books for a number of the nationalities in their own languages – school books, manuals on practical subjects (like herding and trapping), translations of Russian literary works, books by native authors, and political and economic material. After a few years the output to very small nationalities was reduced to elementary school texts: readers and arithmetics.

The work of organizing schools went slowly at first while cadres of Russian teachers were trained to use effectively the language of the nationality to which they would be assigned. At first, the training was available only in Russia, but by 1951 there was a teachers’ training college in Anadyr.

Among the Tundra People

In 1950/51 about eighty schools were reported in the okrug, and more than three thousand pupils. In 1953, five Chukchi were enrolled in Leningrad University; one became a chemical engineer. In 1955 a Chukchi graduated from the highly regarded Herzen Pedagogical Institute with its Department of the Far North in Leningrad.

The earlier discussion of the distribution of population in the okrug shows that outside the urban areas most settlements can support no more than a small primary school, with one or a very few teachers, and a substantial minority of children cannot be within reach of a school at all. As recently as 1973, the Russian press reported a flurry of complaints from parents on the outskirts of urban areas that their children had to walk six to ten kilometers to school.

Young people in small remote communities in the okrug who have reached high school age with a good scholastic record face a critical decision both for themselves and for their parents. The small local primary school may up to this point have met their needs well. But a high school needs a larger faculty, capable of teaching a variety of subjects. To get this higher education, the young person must live in an urban area, at least during each high school semester.

This may be expensive, and living away from home may be daunting, at least at first. But the biggest problem is the loss of contact between child and parents and their whole way of life.

If the student continues to progress, the next step beyond, say, high school in Anadyr with perhaps ten thousand inhabitants is Magadan, twelve hundred kilometers from Anadyr (of course, that's only two hours by plane) or even Khabarovsk, one of the two great cities of the Soviet Far East, twice as far away. Beyond these loom the great universities in Russia.

At every step, Anadyr, Khabarovsk, Leningrad, the young person's interests comprehend greater and greater

worlds; and he enjoys the stimulation, the diversions, the shop windows, and the comforts of the West. Life in a provincial capital like Anadyr or an isolated industrial settlement like Bilibino may not be attractive, on a collective farm stifling and in a skin tent revolting. In short, many young people will not return willingly. If they do they will not find many employment opportunities that we might classify as white collar, and will not have the knowledge and experience to follow their parents' footsteps. This has been the lot of Indian children in the United States, of Eskimo children in Canada, and longer ago on a much larger scale, of the Babu (the English-educated class) in India.

Seen over a long period this may be a ripple among many larger waves of social change. In fact it may have begun to subside because by now there must be a considerable proportion of parents or even grandparents who have received some formal education.

MEDICAL SERVICES

Providing medical services to the remote and undeveloped nationalities of the far north presented the Soviet Union with major problems. The nearest medical school was in Omsk until 1958 when another was established in Khabarovsk. In 1940 there were ten hospitals in the Chukchi National Okrug with 125 beds in charge of five assistant doctors. Between 1958 and 1967 the two medical schools sent 87 doctors to the far north, of whom six went to the Chukchi National Okrug.

The biggest problem was to furnish service to people spread thinly over the immense area. In 1968 the hospital in Palana, in the Koryak National Okrug was reported to have a mobile team and a helicopter to serve three thousand people within a radius of 125 kilometers. There remains the

Among the Tundra People

difficulty of communicating need from distant inhabited places. We must assume the existence of a considerable number of telephones and microwave links. This situation is the chief motive for proposals to settle more of the inhabitants, especially the nomads, in populous centers.

ELIMINATING NOMADISM

The 1926 census counted a substantial majority (68 percent) of Chukchi as nomadic reindeer herders. A 1973 report states that most of the indigenous population are now settled in villages or kolkhozi (collective farms). The elimination of nomadism is an announced objective of the Soviet Union. Settlement can give the Chukchi more social life, expanded horizons, intellectual stimulation. It brings more of them within reach of schools and medical help. It puts them in more comfortable dwellings, and eliminates the unending hard labor and unprofitable use of time in making and breaking camp. A well run kolkhoz may offer services like those rendered by farmers' cooperatives in this country: veterinary and other expert services, buying and marketing, planning and scheduling the annual operations of the herders, etc.

Over a period of nearly forty years up to 1960, the average number of reindeer in the far north was about two million. In recent years the Chukchi are believed to own about three hundred thousand. (The statistics are very imperfect and this number may be in error by a hundred thousand either way.) In any case, a family's herd was essentially a family's sole support. The reindeer furnished food, clothing, housing, transportation, and trade goods with which to obtain such highly desired commodities as seal oil. In effect, the herder, using the herd as a tool, manufactured all these things for himself out of local renewable

natural resources. Except for exchanging for tea and tobacco a few pelts of fur-bearing animals that he himself shot or trapped, he imported nothing and exported nothing. He did not even pay taxes, as Sverdrup related.

If he now lives in a house in a village or kolkhoz, it, along with other goods and services, has to be paid for, and consequently he has to produce a marketable commodity. He knows how to produce in quantity only one thing: reindeer. Reindeer flesh is perfectly palatable, and is readily eaten where available. It is conceivable that a market for reindeer meat could be developed (or now has been developed). Among the hundred thousand immigrants, fresh meat should be welcome, especially if it is cheaper than meat from afar. However, if the total Chukchi herd is increased to meet a new demand, another problem arises. Reindeer herders are nomads because in the far north reindeer, like caribou, have to move fairly steadily from day to day around the year to find sufficient grazing. Plant growth is slow and overgrazing makes barren areas which may not recover for years, just as over-cultivation makes dust bowls. Since, as mentioned above, the tundra and taiga (the Arctic forest) in the far north provide no food for mankind in any quantity, except reindeer, mankind has had to follow and finally to guide the reindeer. The "carrying capacity" of the land for people is determined by the carrying capacity for reindeer. To obtain a greater yield of meat, the herders must either utilize the land more efficiently or utilize additional land.

If the additional land is to be used, an ecological study must be expanded to locate, map, and evaluate it, and the same more efficient herding must be used. In addition, the herds will probably have to travel farther in a year. This seems feasible on two grounds. First, Sverdrup's account plainly depicts the leisurely pace of the Chukchi and their herds. Second, the herds of the Nentsi, far to the west, at

Among the Tundra People

the same latitude, travel much farther in a year. Both more efficient herding and utilizing additional lands would require more manpower.

Some kolkhozi are said to have made a possibly important contribution by initiating rotation of herders. Sverdrup's account shows that in 1919/20 a typical migrating family group had more men and older boys capable of herding than were necessary most of the time. The kolkhoz (perhaps using a helicopter, but this is not clear) exchanges herders at intervals, varying numbers as needed (e.g., more at fawning season). Ideally the families can thus stay in one place and even the family heads be at home for a good part of the year.

At present only mining brings much income into the okrug. Not many Chukchi have found employment in the mining settlements or in all the urban areas, as the population numbers above show. Cattle raising has not yet been successful in the far northeast. Truck crops grown without expensive artificial heat (or even light) have very limited potential. Hunting, whether for game or for fur bearers will not support many people. Large-scale ocean fishing has not been productive in the okrug though important farther south in Kamchatka and Magadan. As a by-product of fishing, fur farming has been profitable in Magadan province close to sources of fish offal. Converting trash fish into pelts might be successful in Lavrentia or Provideniya.

The most favorable possibility for the future of the Chukchi is that it might be based on their traditional occupation. If carefully evaluated, gradual modifications can be encouraged with great skill and tact so that the herdsman increases his yield while preserving his pride in his art, he may become a well adjusted asset to the community.

READING LIST

I. The classic monograph on the Chukchi is:

1. Bogoras, W. *The Chukchee* 1904-1909. American Museum of Natural History, Memoirs 11, 733 pp.

The author during years of exile (1890-1898) in far northeastern Siberia gathered the material for this general work and others on various aspects of Chukchi and Eskimo life, especially on language. The book has been reissued recently by Johnson Reprint Corporation, 111 Fifth Ave., New York, NY 10005.

2. Vdovin, I. S., *Ocherki Istorii i Etnografi Chukchei (Outlines of Chukchi History and Ethnography)*, 1965. Moscow-Leningrad.

If you can read Russian and have time, it would be worthwhile to run this down.

II. Chapters and articles on the Chukchi:

3. Antropova, V. V. and V. G. Kuznetsova, 1964 (1956). The Chukchi, pp. 779-835 in: Levin, M. G. and L. P. Potapov, editors, *The Peoples of Siberia*.

See item 15.

4. Nordenskiöld, N. A. E., 1882. *The Voyage of the Vega round Asia and Europe*. MacMillan, New York, 756 pp. Originally published in Swedish 1880-1881.

Like Sverdrup, Nordenskiöld was a well known scientist and this book is full of interesting matters in addition to many observations on the coastal Chukchi.

5. Jochelson, W., 1928. *Peoples of Asiatic Russia*. American Museum of Natural History, 277 pp.

Like Bogoras, an exile from czarist Russia, and an accomplished ethnographer. Many photographs.

6. Leont'yev, V. V., 1977 (1973). The indigenous peoples of Chukchi National Okrug: population and settlement.

Polar Geography, 1 (1), 9-22.

This is an English translation of parts of a book, *The Economy and Culture of the Peoples of Chukotka* (1958-1970). Novosibirsk, 1973.

7. Levin, M. G., 1963 (1958). *Ethnic Origins of the Peoples of Northeastern Asia*. Arctic Institute of North America, 355 pp. Anthropology of the North: Translations from Russian Sources, No. 3. Translation of Levin, M. G. (1958), *The Physical Anthropology and Ethnogenetic Problems of the Peoples of the Far East* (in Russian).

Sverdrup mentions similarities in appearance of some of the nationalities of northeastern Siberia to each other and to American Indians. The anthropologists have devoted a good deal of attention to these and Levin has written an exhaustive and sensible review. This very professional work is not to everybody's taste, but some will find it extremely interesting.

8. Armstrong, Terence, 1965. *Russian Settlement in the North*. Cambridge University Press, 224 pp.

Only to a minor extent concerned with Chukchi specifically, but an excellent brief history of conquest and immigration from the thirteenth century to the early nineteen-sixties; geography, politics, maps, pictures, census data. About 200 references, including original observations, many in Russian.

9. Kirby, E. Stewart, 1971. *The Soviet Far East*. MacMillan, London, 268 pp.

Geography, resources, economics of (roughly) the eastern half of Siberia, maps.

10. Kolarz, Walter, 1953, 3rd ed. reprinted 1967. *Russia and her Colonies*, reprinted by Archon Books, 335 pp.
11. Kolarz, Walter, 1954, reprinted 1969. *The Peoples of the Soviet Far East*, reprinted by Archon Books, 194 pp.

Review of the relationships between the Soviet Union and its included nationalities. Very critical of the U.S.S.R.

12. Swenson, Olaf, 1944. *Northwest of the World*. Dodd Mead, New York, 221 pp.

An American trader's story of contacts with the natives of the Chukchi National Okrug, especially from 1905 to 1928. Includes an account of his winter journey by dog sled from Cape Shmidt to Yakutsk.

III. Bibliographies:

13. Foreman, Sylvia H., 1967. *The Siberian Peoples: annotated bibliography of English language sources*. Kroeber Anthropological Society, Papers, number 36, 1-31.

About 50 references.

14. Jakobson, Roman, G. Huttli-Worth and J. F. Beebe, 1957. *Paleosiberian Peoples and Languages: a bibliographic guide*. Human Relations Area Files Press, New Haven.

Perhaps 800-900 references to publications about the Chukchi, in a dozen languages. Very valuable. Just reading the titles, which are given in English as well as the original language, is educational.

IV. Other useful works:

15. Levin, M. G. and L. P. Potapov, editors, 1964 (1956). *The Peoples of Siberia*. University of Chicago Press, 948 pp.

Originally published in Russian by Akademia Nauk SSSR, 1956.

A massive compilation, much more detailed than Jochelson's account (item 5) for the 25 or so peoples it covers. Dull but useful.

16. *The Times Atlas of the World*, 5th ed., 1975. New York Times Book Co.

Plate 39 shows the Chukchi National Okrug and a great deal more of northeastern Siberia. In the details I have examined it is consistent with plates 40-41 of *The World Atlas*, Moscow, 1967, but is much more legible. The latter is printed from the same color plates as *Atlas Mira*, Moscow, 1967, but has the labels of features and places in English. It is only a little easier to read than *Atlas Mira* which has the labels in tiny cyrillic letters; both are very cluttered.

17. Semyonov, Yuri, 1963 (1954). *Siberia*. Helicon Press, Baltimore, 414 pp.

Originally published in German in 1954.

A readable history of the whole of Siberia (not just the north or the far east), but contains little about Siberia under the Soviet Union.

V. Periodicals:

18. Arctic, quarterly, Arctic Institute of North America.
19. Arctic Anthropology, semi-annual, University of Wisconsin Press.
20. Arctic Bibliography, annual, Arctic Institute of North America.
21. Current Digest of the Soviet Press, weekly, American Association for the Advancement of Slavic Studies, The Ohio State University.
22. Polar Geography, quarterly, new, Scripta Publishing Company, 1511 K St. NW, Washington, D.C. 20005.
23. Polar Record, monthly, Scott Polar Research Institute, Cambridge, England.
24. Soviet Geography, monthly, American Geographic Society.