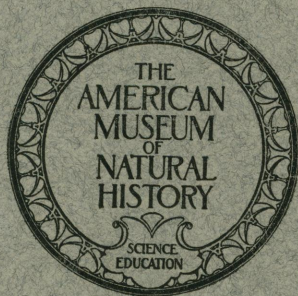


ANTHROPOLOGICAL PAPERS
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY

VOLUME XXXIII, PART II

THE YAKUT

BY WALDEMAR JOCHELSON



BY ORDER OF THE TRUSTEES
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
NEW YORK CITY
1933

ANTHROPOLOGICAL PAPERS
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY

VOLUME XXXIII, PART II

THE YAKUT

BY WALDEMAR JOCHELSON



BY ORDER OF THE TRUSTEES
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
NEW YORK CITY
1933

THE YAKUT
BY WALDEMAR JOCHELSON

PREFACE

The Yakut were under the observation of the author for a long time, but, in the main, the data presented in this paper were obtained during two periods of field study. Thus, the most intensive study was made among the groups living on the Kolyma River during the years 1884 to 1894, as a member of an expedition of the Imperial Russian Geographical Society of St. Petersburg fitted out at the expense of I. M. Sibiriakov. During this time the author traveled from the mouth of the Kolyma to its sources and back, visiting en route all the Yakut settlements discovered. At present most of the Yakut live much farther south, chiefly in the region of the southern Lena and its tributaries. This southernmost group of Yakut was visited in the years 1900 to 1902 when the author was a member of the Jesup North Pacific Expedition, organized by the American Museum of Natural History for the intensive study of eastern Siberian and northwestern American anthropological problems. It was while engaged in the latter field study that an ethnological collection, which is now in the Museum, was made. The illustrations in this paper are for the most part from objects in that collection.

WALDEMAR JOCHELSON.

Nice, France
January 13, 1933.

CONTENTS

| | PAGE |
|--|------|
| PREFACE | 37 |
| ORIGIN TRADITIONS, MIGRATIONS, AND HISTORY | 45 |
| ORIGIN TRADITIONS | 45 |
| Historical Significance of Origin Traditions | 58 |
| PREHISTORY | 60 |
| HISTORICAL MIGRATIONS | 63 |
| INITIAL CONTACT WITH RUSSIANS | 64 |
| HABITAT | 65 |
| PHYSICAL GEOGRAPHY OF YAKUTSK PROVINCE | 65 |
| THE PERMANENT FROZEN SOIL | 66 |
| THE TUNDRA | 67 |
| OROGRAPHY | 68 |
| FLORA | 69 |
| FAUNA | 72 |
| POPULATION OF THE POLAR REGION | 73 |
| The Olekminsk District | 74 |
| The Viliuisk District | 74 |
| The Yakutsk District | 74 |
| CLIMATE | 75 |
| ANTHROPOLOGY | 84 |
| STATURE | 86 |
| HEAD LENGTH | 88 |
| CEPHALIC INDEX | 88 |
| LANGUAGE | 90 |
| THE HARMONY OF VOWELS | 90 |
| CONSONANTS | 91 |
| ACCENT | 92 |
| PARTS OF SPEECH | 92 |
| THE VERB | 93 |
| VERBAL NOUNS AND THE GERUND | 94 |
| THE NOUN | 95 |
| THE PRONOUN | 96 |
| NUMERALS | 97 |
| THE ADVERB | 98 |
| INDECLINABILIA | 98 |
| CALENDAR | 100 |
| RELIGION | 103 |
| PRE-CHRISTIAN BELIEFS | 103 |
| SHAMANISM | 107 |
| The Shaman's Coat | 107 |
| The Shaman's Drum | 118 |
| A Shamanistic Performance | 120 |
| THE FAMILY AND KINSHIP | 123 |
| MATERIAL CULTURE | 135 |
| DWELLINGS | 135 |
| CLOTHING | 143 |

| | PAGE |
|--|------|
| POTTERY | 157 |
| METALS | 163 |
| Iron | 163 |
| The Yakut Blacksmith | 165 |
| Weapons and Tools | 167 |
| Armor | 171 |
| Social Position of the Yakut Blacksmith | 172 |
| Copper, Gold, and Silversmiths | 173 |
| Silver Objects | 174 |
| AGRICULTURE | 179 |
| The Skoptzy | 183 |
| Yakut Agriculturists | 185 |
| TRANSPORTATION | 187 |
| CULTIVATION OF MEADOWS | 188 |
| DOMESTIC ANIMALS | 188 |
| Horse and Cattle Breeding | 188 |
| Reindeer Breeding | 190 |
| Dog Breeding | 191 |
| Breeding of Swine, Sheep, Fowl, and Bees | 191 |
| ART | 192 |
| THE KUMISS FESTIVALS | 197 |
| KUMISS VESSELS AND THEIR DECORATION | 205 |
| LEPROSY | 218 |
| HISTORY OF CONTACT WITH RUSSIANS | 220 |

LIST OF ILLUSTRATIONS

TEXT FIGURES

PAGE

| | | |
|-----|--|-----|
| 1. | A Calendar, the Inner Perforations represent the Days of the Week, the Outer Perforations, the Days of the Month | 101 |
| 2. | The Back of a Shaman's Ceremonial Coat | 107 |
| 3. | Three Iron Discs attached to the Back of the Shaman's Coat shown in Fig. 2 | 108 |
| 4. | Appendages to the Back of the Shaman's Coat (Fig. 2) | 108 |
| 5. | Appendages representing his Bird Spirit on the Back of a Shaman's Coat (Fig. 2) | 110 |
| 6. | Two Iron Bands attached to the Back of the Sleeves of a Shaman's Coat (Fig. 2) | 110 |
| 7. | Appendages to the Shaman's Coat (Fig. 2) | 111 |
| 8. | <i>a</i> , A Bent Iron Disc on the Shaman's Coat (Fig. 2); <i>b</i> , A Representation of the Shaman's Seat on which he ascends to the Upper World and descends to the Lower World | 112 |
| 9. | Pendants on the Shaman's Coat (Fig. 2) | 113 |
| 10. | The Front of a Shaman's Ceremonial Coat | 113 |
| 11. | Ornaments on the Front of the Shaman's Coat shown in Fig. 10. | 114 |
| 12. | Front and Back of a Typical Shaman's Coat | 115 |
| 13. | Back View of a Shaman's Coat worn by Yakut of the Kolyma River | 117 |
| 14. | Headdress of the Kolyma Yakut Shaman | 117 |
| 15. | Footgear of the Kolyma Yakut Shaman | 117 |
| 16. | Shaman's Drum and Drumstick | 119 |
| 17. | A Skin Dressing Tool used to soften Skins | 132 |
| 18. | Skin Dressing in Front of the Hut of an Impoverished Yakut | 132 |
| 19. | Groundplan of a Yakut Hut | 135 |
| 20. | Brass Representation of Saints, forming Part of the Furnishings of a Yakut Hut | 136 |
| 21. | Model of a Table and a Chair | 138 |
| 22. | Exterior of a Yakut Hut in Winter | 139 |
| 23. | Log House of the Russian Type, belonging to a Rich Yakut Elder on the Lena River not far from Yakutsk | 140 |
| 24. | Large Conical Birchbark Tent, an Ancient Type of Yakut Summer Dwelling | 141 |
| 25. | Polygonal Sloping Roofed Blockhouse at Verkne Kolymsk | 141 |
| 26. | A Wooden Steelyard | 142 |
| 27. | A Yakut riding an Ox harnessed to a Sledge loaded with Plaited Grass Mats | 143 |
| 28. | The Summer Costume of an Impoverished Yakut | 144 |
| 29. | Fur Cap worn by Men | 144 |
| 30. | Fur Hood worn by Women | 144 |
| 31. | A Rich Yakut Woman dressed in a Lynx Fur Coat, Black Fox Mittens, and a Fur Cap ornamented with Silver | 145 |
| 32. | Ornamented Crown for Woman's Cap | 145 |
| 33. | Two Yakut Women from Yakutsk, wearing Felt Hats of Russian Importation | 146 |

| | PAGE |
|--|------|
| 34. A Yakut Elder on Horseback, wearing a Russian Cloth Cap with a Peak | 147 |
| 35. Woman's Coat decorated with Beaded Bands | 148 |
| 36. Steel for making Fire | 149 |
| 37. Back of a Highly Ornamented Coat, the Type worn by Rich Women | 149 |
| 38. Front and Back of a Woman's Foalskin Coat. | 150 |
| 39. A Woman's Trousers of curried Elkskin ornamented with Beads and Brass Bells | 151 |
| 40. Yakut Footwear | 153 |
| 41. A Yakut Girl wearing Boots with Silver Ornaments | 154 |
| 42. Woman's Mitten made of Skins of White Fox Legs | 155 |
| 43. A Boa made of Squirrel Tails | 155 |
| 44. Pipe made of Mammoth Ivory | 156 |
| 45. Wooden Snuff Box | 156 |
| 46. Costume of Poor Yakut Children | 157 |
| 47. Pottery Making Implements | 158 |
| 48. An Iron Scraper for Clay Cooking Pots | 159 |
| 49. Pottery Forms | 160 |
| 50. Pottery Ornamentation | 160 |
| 51. Wooden Stamps for decorating Yakut Pottery | 161 |
| 52. Interior of a Yakut Winter Dwelling | 162 |
| 53. Types of Pottery Designs | 162 |
| 54. A Blacksmith at Work | 166 |
| 55. Metal Tools | 168 |
| 56. Knives and Sheaths | 169 |
| 57. Knife and Board for cutting Brick Tea | 170 |
| 58. Metal Scythe used by Russianized Natives at the Mouth of the Anadyr River | 170 |
| 59. A Composite Double-Curved Bow, reinforced with Bark and Sinew | 171 |
| 60. An Iron Hand and Arm Protector for use with a Bow | 171 |
| 61. Child's and Woman's Silver Bracelets | 173 |
| 62. A Silver Cup and Saucer with engraved Symbolic Representations of Plants | 174 |
| 63. Silver Ornaments | 174 |
| 64. Riding Gear | 175 |
| 65. Silver Ornaments on the Bridle illustrated in Fig. 64 | 176 |
| 66. The Front of a Saddle ornamented with Engraved and Hammered Silver | 177 |
| 67. Side View of the Silver-Ornamented Saddle illustrated in Fig. 66 | 178 |
| 68. Silver and Lead ornamented Saddle Cloth | 178 |
| 69. A Silver Saddle Hook | 179 |
| 70. A Curry Comb decorated with Silver Bands | 179 |
| 71. A Horsehair Mosquito Brush with Silver Decorated Handle | 179 |
| 72. A Saddled Horse with Decorated Side and Hind Covers | 180 |
| 73. A Rich Yakut Woman and Her Riding Horse | 180 |
| 74. A Fur Saddle Cover decorated with Varicolored Strips of Fur to form Geometric Patterns | 183 |
| 75. A Wooden Pack Saddle with Grass Pad | 184 |
| 76. A Yakut in Winter Dress on Horseback | 184 |

| | PAGE |
|--|------|
| 77. Yakut Agriculture and Methods of Transportation | 186 |
| 78. Model of an Ox Sledge | 187 |
| 79. A Sledge Load of Hay | 189 |
| 80. Muzzles for Young Domesticated Animals | 189 |
| 81. The Method of Transporting the Museum Collections from the Verk- hoyansk Mountain Ridge to Yakutsk City | 190 |
| 82. An Ivory Carving depicting a Man on Snowshoes | 193 |
| 83. Wood Carvings representing a Lamp on a Stand and a Saddled Horse . . | 193 |
| 84. A Mammoth Ivory Box with Filigree Carving and some Details of the Figures carved on the Opposite Side | 194 |
| 85. Carved Ivory Objects | 195 |
| 86. Bone Goblet | 195 |
| 87. Kumiss Festival | 201 |
| 88. Circle Dance, a Part of the Kumiss Festival | 204 |
| 89. Cylindrical Wooden Vessel used in the Kumiss Festival | 204 |
| 90. Wooden Tripod Goblets used in the Kumiss Festival | 206 |
| 91. Wooden Goblets for Kumiss | 206 |
| 92. Large Wooden Kumiss Ladle and Details of Engravings on its Handle . | 207 |
| 93. Designs carved on Kumiss Vessels | 208 |
| 94. Relief Carvings on Various Kumiss Vessels | 210 |
| 95. Two Wooden Funnels for Kumiss Churns | 211 |
| 96. A Kumiss Churn on a Wooden Stand | 212 |
| 97. Decorated Fur Rugs | 213 |
| 98. Details of Embroidery and Sewing on Birchbark Vessels | 214 |
| 99. Birchbark Boxes | 215 |
| 100. Birchbark Kumiss Bucket with "Finger-Embroidery" | 216 |
| 101. A Cross Design on a Kumiss Churn Stick | 216 |
| 102. Figures in Relief engraved on Kumiss Goblets | 216 |
| 103. Patients in the Leper House of Sredne Kolymsk | 218 |
| 104. Map showing Russian Settlements and Routes in the Yakut Country in the Seventeenth Century | 221 |
| 105. A Blockhouse | 222 |
| 106. Distribution of Tribes according to the Census of 1676 | 223 |
| 107. Distribution of Tribes according to the Census in 1897 | 225 |

ORIGIN TRADITIONS, MIGRATIONS, AND HISTORY

ORIGIN TRADITIONS

I

Omogoi, the clever, bad-tempered, and wilful son of Kayarang, lived among the Buryat. He had three wives, four sons, two daughters, and many daughters-in-law. Whenever he became dissatisfied and felt hostile to his clan he cherished the idea that he would seek a suitable home at some distance. So, one time he induced the members of his family and his clan who also wanted to go to a new place, to emigrate, driving their cattle before them.

Soon they reached the Great River (the Lena) and moved up its valley, losing their "writings" en route. They came to a suitable place and said, "We have gone far enough; this is a good country," and settled there. They discovered a small lake nearby and named it Saisary. Omogoi-Bai-Toyon (i.e., the rich lord, Omogoi) became the leader and elder of the people (or Elliei).

When Omogoi abandoned his clan he left behind his brother, Elliei, who was then a small boy; but when he grew up, he resembled Omogoi in every way. He too was at odds with his clansmen and left them, setting off without a specific goal. He had traveled a long distance when he found an abandoned fireplace and thought that since someone had already passed that way, he too would continue along the same route. He arrived at the Great River (the Lena) and the settlement of Omogoi-Bai-Toyon, where he decided to remain.

He wanted to marry one of Omogoi's two daughters and hid himself to watch them urinate. He noticed that the younger daughter passed her urine with foam and that the older did not. The older daughter was pretty; the younger ugly. He thought, the one who urinated with foam will be a fertile wife, the other will be childless. So he asked Omogoi for his younger daughter. She bore him many children, while the older one remained childless.

Thus they lived very happily on the Saisary plain. Neither their children nor the cattle they reared died. Omogoi and Elliei became very rich and their descendants were the leaders of the tribe.

Tygyn, the son of Darkan, the elder of the people, lived on the river and the plain in wealth and comfort. He had many sons and daughters and other relatives.

At that time there were few adjacent settlements and the large extent of territory occupied consisted mainly of hunting reserves where

sables, foxes, squirrels, reindeer, and bears were hunted. When Tygyn's people learned of the excellent hunting grounds, they settled there in small groups and lived on the products of the chase.

In course of time they increased in number and lost all knowledge of their ancestry. Their language changed and even the former name of the tribe was forgotten. The shamans were esteemed and feared as are now the Christian priests. They instilled their teachings through the medium of songs, for example, "You, the crowd of the Sakh-Spirit, help, save, and benefit us; show us the sun and moon." And while they performed, the shamans said to the people, "The spirit named Sakh brings blessings and salvation to all." The people accepted this and said, "Sakh knows," much as is said, "God knows." Everyone believed and honored the spirit the shamans called, Sakh, and as a sign of good faith, they said, "We are the people of Sakh and our name shall be Sakha." Evidently they adopted this name because they had forgotten their tribal appellation.

However, the Sakha (Yakut) of that time had some conception of God, as is evident from their frequent addresses to the Ār-Toyón, Ayī-Toyón, Kyun-Kyubei-Khotun, and Dshesyugei-Ayī. They prayed, standing erect and facing the east, or bowed to the ground.

The ancient Yakut called their blood relatives *dshuortu* but this term has been replaced by the Russian *brat* (brother). At present only a few people know the word *dshuortu* or attribute a different meaning to it.

Blood relatives, i.e., the *dshuortular*¹, did not marry, regarding it as a sin. A rich man took three wives from alien clans, paying high bride-prices; a man of ordinary resources had two wives; a poor man had one wife. There were cases when a strong man killed the husband of a handsome woman and took her with his riches. Polygamy originated from the desire for many children, so when one wife died another one was taken in her place.

When parents grew senile, horse guts were thrust into their mouths to prevent them from uttering a word and all the burial ceremonies were held.

The old time Yakut regarded water-rats as the best food and next in order of preference were the placentæ of cows and horses. They donned their best clothing, bowed over the food, and prayed as follows: "Dshesyugei-Ayī gave it to us and will give it to us in the future." They believed that the prayer would insure the increase of cattle and horses.

¹Plural of *dshuortu*.

Even the laity understood the prayers and blessings; thus a prayer was repeated when a new daughter-in-law joined the family; when a child was born; when the *Isyākh* (kumiss festival) was arranged; for cattle; on the initiation of a hunt; and when a storm was imminent.

In conformity with present practices, the richest men were *ulus* heads, and the strong men were *nasleg* elders.¹ No form of trial was known. They usually killed people who were hostilely disposed toward them, or who offended their friends, instead of trying them before a court, or took from them by force whatever they desired. For his own aggrandizement, the strong man, when he was poor, complied with the demands of the rich and fulfilled their commissions. He who was feeble and weak lived in constant terror and only in a matter of life and death was a struggle with the rich and strong countenanced.

Formerly, wealthy individuals were drawn by three white horses, wore white *dokhas* (overcoats of reindeer skins), and carried white staffs in their hands. To drive nine horses to a remote place and leave them, constituted a sacrifice. The very rich made this sacrifice three times, the moderately rich twice, and those in ordinary circumstances only once. Thus the rich acquired fame and distinction, receiving favorable discrimination. The poor man, trying to imitate these boastingly offered sacrifices, often lost all his cattle and despoiled himself of all his possessions, to end in beggary.

When the Yakut first reached Saisyary they were accompanied by two or three silver-workers and smiths. These artisans did not increase and when the Yakut became more numerous there were not enough tools and some lost their metal implements through breakage. Therefore to meet their needs each manufactured for himself, axes, scythes, or other implements of horn, bone, and stone, in accordance with his wants.

The strongest and most alert men among the Yakut could walk five *kōs*², kill forty hares, carry them on their shoulders, together with a bow and ten hare traps and return the same day to their dwellings. At home they were occupied with hay making, although they did not need much hay, since the winters and summers seem to have been of the same

¹*Nasleg* is a territorial unit comprising several clans; a *ulus* consists of several *naslegs*.

²*Kōs* is an indeterminate linear measure of the Yakut, given in terms of an indeterminate time period. It is the distance covered by walking during the time a vessel filled with water takes to boil on the hearth. But nothing is said about the size of the pot nor the intensity of the fire. Literally, *kōs* means clay pot.

This is according to information received by me from the Yakut of the Kolyma District. Pekarsky, E. K., Dictionary of the Yakut Language [Yakut-Russian] (Published by the Russian Academy of Sciences, in twelve parts, Leningrad, 1907-1927), 1170, however, says that *kōs*, meaning a day's walk or ride of a wandering camp is the Yakut linear measure which corresponds to, from seven to eight versts (4.6 to 5.2 miles) for a walker and from ten to fourteen versts (6.6 to 9.2 miles) for a horseman. There is also an ox mile and a dog mile. In Afghanistan *kuōs* is a fixed linear measure corresponding to eighteen miles.

duration. Some years the winters were longer and the cattle died or fell to the last head after the hay was consumed.

One noted shaman predicted: "A numerous people will come; a people of different appearance, with deep set eyes, high bridged noses, hairy faces, and wearing short coats. Then unavoidable distress and unescapable misfortune will befall us." Then the whole tribe held a council. The rich implored the shaman and offered him a remuneration to bar the way to the newcomers, saying, "Drive them back by incantations." Accordingly, the shaman performed uninterruptedly for several days and nights; then he stopped and said: "I could not overcome them; I could not induce the spirit subjects of the Sakh and the evil spirits to stop the waters of the river by filling it with sand. After they had half filled the river a *yôr* (i.e., the spirit of the soul of a deceased man) appeared in the shape of a strong hideous man, resembling the people I described before, and threw everything out of the river. Therefore we must expect an unavoidable calamity." In his sorrow, he wept. The people soon forgot his warning and lived for many years in the same manner as before.

Among the Yakut nobody lived as luxuriously as Tygyn who had the largest *yurta* (house). One time two men appeared from an unknown place; their eyes were deep set and blue, their noses high and sharp; their hair was cut short; their clothing was narrow like seaweed. They did not understand the colloquial language, but communicated by signs and surmised what was said. They remained there several days, helped with the work, and were very industrious and of good character.

In the summer they returned, remaining for the winter. Speaking of these men, Tygyn's wife said, "The men who came in search of us inspire me with fear; my limbs tremble when I give them kumiss in a goblet and I spill it. This means that in the future their descendants will become the masters of the Yakut. When I examine them carefully, I see that their arms and legs are covered with hair and I conclude from this that they belong to a numerous people. Old man,¹ order our people to kill them." Tygyn disagreed and answered, "It would be a sin to kill them before they have exhibited any evil and the White-Lord-Master (Uruñ-Ajy-Toyon) would punish us. Besides, their work is profitable."

When the two newcomers addressed each other, they often said, "*lutshe, lutshe*" (Russian: better, better). Hearing this, the Yakut called them Nutchá. On the other hand, the newcomers, hearing the

¹Old man is used instead of "my husband."

Sakha use the word *dja kuot* (just run) or *djä kuotta* (they just ran away), called them Sakha Yakut.

They spent two years with the Yakut accepting nothing whatever for their work, and pleasing them very much. Once, in the spring, they asked for two hides. Tygyn complied with their request. They stretched the hides on the ground and it seemed that they talked of the place covered with the hides. Tygyn thought they wanted to erect something there; to see what they would do, he told them to take the hides. The two Russians cut the hide into thongs like thread. They drew them around a large tract of land picketed with wooden pegs as boundary marks and said, as it seemed. "These may not be removed." "Well," said the Yakut, "let it be," but paid no attention to it.

After that, both Russians disappeared for the spring and summer. Some of the people noticed it and said to Tygyn, "The two Russians departed southward by water. They are a wonderful people." Then they forgot all about them. The Yakut did not remove the pegs driven into the ground by the Russians because they did not understand their meaning.

Early one morning, in the spring of the third year, many high and low buildings which had not been there before appeared on the tract of land enclosed by the pegs. They were constructed of logs laid horizontally. Inside and outside the houses were people resembling the two Russians and as numerous as mosquitoes. The Yakut were frightened, met in council, and decided to kill the intruders. They assembled and began to shoot with their bows from a distance. They did not hide behind their dwellings, but sought shelter behind entrenchments. The arrows glanced off from the Russian houses, harming no one, but some Yakut died on hearing the report of a gun. Therefore, they said, wonderingly, "It is amazing that we die every time the Russians break wind."

Tygyn's son, Tschalhas, who was very strong and clever, said, "I noticed that after every report something like a berry penetrates the man's body; then he dies." Tschalhas, unharmed, caught the "berries" in his cap and returned them. As the Yakut were unable to attack, they besieged the Russians for many days. The Russians strewed tasteful sweets and white and blue beads around their houses. The Yakut children picked these up and carried them to their parents. They tasted and found them delicious and thought the beads were beautiful. Then stupidly and foolishly the older people also went to look for sweets and beads. When they approached the Russian houses, the latter threw long larch trees at them, annihilating the assembled crowd.

Tschalhas was very excited and worried over the occurrence. Carrying his bow, he ascended to the top of a hill which served as a rampart. When a red-faced man appeared in front of the high building, he discharged an arrow which struck his eye; thus, the most prominent of the Russians died. After that Tschalhas ran to the Russian houses to wreck them. He braced his shoulders against the walls and the houses trembled and appeared on the verge of collapse. The Russians captured him and shackled him with iron chains which he smashed and threw away. Then the Russian leader had his people hold him fast and put his nose to his private parts to smell. He sniffled like a horse and died; he could not endure the abhorrent practice. When Tschalhas' head was cut off it weighed one and a half *pud* (54 pounds). The Yakut, deeply moved at his death, wept bitterly because it was quite uncertain whether an individual like Tschalhas would ever be born again. Unfortunately, Tschalhas left no children; consequently, the number of Yakut continued to dwindle.¹

As the Yakut were no longer able to struggle with and resist the Russians, they submitted to their domination and lost their independence. Even the bravest of the Yakut preferred living under Russian rule to leaving their original settlements and migrating, near or far. There they increased in number.¹

The best men of the present eastern and western Kangalas named *uluses* were the sons of Tygyn, the so-called Kangalas people and some others. These two *uluses* originated from all of them. Bolotoi Orkhon (Molotoi Orkhon) and his son Mängä and many people lived where the Baturuski *ulus* is now. Khordoi Khoyogos with his son, Borogon, and many other people lived where the Meginski Ulus is now located. Khatalamai Bärgän and his son, Bätür, and many other people, settled and lived where the Baturuski Ulus is now. The present Borogon and Dupsun *uluses* originated from Khordoi Khoyogos and his son Borogon. Än Äräkä Oyün and his son, Nam, and many people are the ancestors of the Namski Ulus.

Ajÿ Taibÿr with his son, Bai, and a small number of people found a place where they settled. Later, when Bai grew old and his father was dead his people called him Bāi-aga. From him, the Bayagantaiski Ulus originated. On the Viliui, Kolyma, Yana, and Olekma rivers emigrants from the eight *uluses* mentioned joined forces and multiplied and now occupy the Viliuisk, Kolymsk, Verkhoyansk, and Olekminsk districts. Then the people moved from one *ulus* to another, and from one district to another, and every census showed an increase in population.

¹The meaning is not quite clear, but this is the literal translation of the tradition.

Though the Yakut moved on from one distant place to another, the Russians still pursued them and in two generations they converted the Yakut to the Greek Catholic faith and levied the imperial fur tribute (*yassak*). When the Yakut learned and became accustomed to the new order of things, they found everything to their liking, and rejoiced over the condition of affairs. It is told, however, that they were bitter over the Russians who were implicated in the death of Tschalhas. For a long time, they could not forget Tschalhas and mourned over him.

The ancestors of the Yakut, dating back to the time when they still lived with the Kirghiz and Buryat, are:—

1. Öksüsü
2. Mäyäräm Süppu, the son of Öksüsü
3. Khorokhoi, the son of Mäyäräm
4. Argyn, the son of Khorokhoi
5. Argyn, the father of Ayal
6. Örös Kuöl Dshuldshygyn, the son of Ayal
7. Tuörtugül, the son of Örös Kuöl Dshuldshygyn
8. Khayarang, the son of Tuörtugül
9. Omogoi, the son of Khayarang
10. Älliäi, the son of Khayarang

Omogoi had two sons:—

1. An-Äräsä Oyün, who had a son called Nam
2. Togosor-Üs, who had a son called Ayū Taibūr, and a grandson called

Bäi-aga.

Älliäi had four sons:—

1. Däkhsei Darkhan, who had two sons: Khangalas and Tygyn
2. Bolotoi Okkhon, whose son was Mägä
3. Khatalamai Bārgān, whose son was Bätyr
4. Khordoi Khoyogos, who had a son named Borogon

I, Panteleimon Yegorov Gotovtzev of the Bai-Aga tribe and the Khangalas clan, wrote it.¹

II²

About the end of the fourteenth century the Yakut had already been forced out of their old dwelling places on Lake Baikal by the Buryat and

¹This tradition was written in Yakut by a Yakut, Gotovtzev, and translated into Russian by the well-known student of the Yakut, Edward Pekarsky. Professor W. Radloff, *Die Jakutische Sprache in ihrem Verhältnisse zu den Türkischen Sprachen* (*Mémoires de l'Académie Impériale des Sciences de St.-Petersbourg, Classe Historico-Philologique*, Series 8, vol. 8, no. 7, St.-Petersbourg, 1908), (In Russian), 65-73, translated it into German, commenting as follows (73):—

A comparison of the genealogies of Omogoi and Älliäi with that cited in Tradition II, listing the sons and grandsons of Älliäi, clearly shows that we are here dealing with a conglomerate of words preserved in the memory of the people, which were, originally, either tribal, clan, personal, or geographic names, and became the appellations of dignitaries of the old Turkish empire of Mongolia.

The following may be designated as Turkish genealogical names:—

1. Arhyn (compare the tribal name Arhyn among the Kirghiz of the Middle Horde).

2. Ayal (compare the large Ayaly tribe among the Irtysh Tatars).

3. Työrtügyl (undoubtedly derived from the Turkish tört +ohul).

²Translated from Radloff, *ibid.*, 77-78.

had settled in the valleys of the Lena and its tributaries. Their first encounter with the adventurous Russian conquerors occurred in 1620.

The following tradition related to me by a Yakut as we sat near a fire in a dense wood is believed to account for this interval.

Many, many years ago there lived a rich Yakut named Ohonom who had two daughters, only one of whom he loved. A Buryat named Elyai (Elliei) used to ascend the Lena River in a skin boat to visit Ohonom. They were excellent friends. Ohonom offered him the choice of one of his daughters. Elyai selected the unloved one. The father, angered by his choice, gave him only one mare and a red cow. Soon the beloved daughter died. Ohonom's wife admonished him to visit her son-in-law, as he had begun to fail. The old man did not want to do this. Once when Elyai came to visit him, he fastened Ohonom's coat to the floor with pegs. Ohonom took a full goblet of kumiss but when he tried to rise with it, he spilled the contents. Thus, he understood that he was becoming weak and became reconciled with his son-in-law and went to visit him.

Tyhyn, the son of Elyai, was a strong and powerful chief. At this time the first few Russians came down the river into the Yakut country. Tyhyn was strong and having been assigned to them as a servant, he killed them all, and fled. Afterward, a great number of Russians came in a large vessel and carried on an extended war against Tyhyn. They built a fortress with towers from which they shot. Then the Yakut manufactured strong horsehair rope and tried to pull down the towers, but the Russians counter-attacked by casting trees down on them. Tyhyn was captured and hung. At that time a son named Ebärä was born to Tyhyn and he was the ancestor of the present generation. The Kangalas are descended from Tyhyn's brother.

III¹

Very long ago, there lived on the Lena, in the present Yakutsk District, a hero and another man. The hero hunted game, fished, and kept many cattle. Once in the summer, while a storm raged, he went from his hut to the river bank where he saw an unknown, handsome, tall, white-complexioned man floating by on a tree with uncut roots and branches. The hero signaled him to approach and as the newcomer did not understand him, he called him, Tyla-suokh (the speechless one). The hero was very much pleased with the stranger and kept him. The Speechless-one, who had wandered about for many years, was very glad.

¹Reported by M. Ovchinnikoff, according to the communication of the Yakut Gabisheff, and published by Radloff, *ibid.*, 78-80, from whom it is here translated.

He served the hero for a long time without remuneration. He was a good, industrious worker and watched the cows and horses and cared for the hay, fished and hunted, and did all the necessary housework. Thus the hero became richer and his herds and the store of valuable furs increased. The hero wished to compensate the Speechless-one and proposed that he marry that one of his eight daughters who most pleased him. The Speechless-one gladly accepted this proposal, but it was difficult to choose as all but the youngest were very handsome.

By that time, the Speechless-one understood the hero's language and told him that in his former home he had known the art of writing, possessed books, and was a shaman. His name was Elliei. He had thrown his books into the river before abandoning his house. To overcome his difficulties in choosing a bride, he sought the advice of a neighbor who admonished him to marry the girl with certain peculiarities. These the youngest daughter possessed and, though she was ugly, he married her. Her father gave him as a dowry only one cow and one horse. When Elliei's bride learned this, she was very angry, as she thought that her father despised her. Therefore she decided to be revenged on him. She prepared a particularly intoxicating kumiss and gave it to all her relatives so that they were under its influence for three days. On the fourth day they sobered up and were so enraged against Elliei and his wife that they did not wish to live with them any longer. Therefore, they ascended to the sky and remained there with the god, Ürüṅ-Ayi-Toyon. To commemorate the ascent of the hero and his daughters, the Yakut, when an unmarried girl died, raised the corpse skyward several times during the burial ceremony, as a symbol that the dead girl is given in marriage to the god, Ürüṅ-Ayi-Toyon, who never descends to the earth.

Elliei had fifteen sons and daughters who were the ancestors of the Yakut.

IV¹

Omogon-Bai, who may have been either a Chukchee or Japanese, since nothing positive is known about him, lived on the site of the City of Yakutsk. He possessed much wealth. From the south, along the Olekma River, there came a poor man named, Elliei, tall, strong, and of good appearance, who remained in the service of Omogon-Bai.

After serving for many years Omogon offered Elliei one of his daughters in marriage. Elliei took Omogon's youngest daughter who liked him very much. As a dowry, Omogon gave his son-in-law a cow and a mare.

¹Communicated by the Yakut, Ivan Torgovkin and published by Radloff, *ibid.*, 80-83, in German from which version it is here translated by the author.

When the mare bore a colt, Elliei offered kumiss to the god Ürüŋ-Ayi-Toyon, also to Ytyk, the protector of cattle and men. Omogon and his family were astonished by these offerings since they had never seen such a ceremony.

In sorrow over her sister's marriage, Omogon's eldest daughter, who was very beautiful, erected a house seven stories high, abandoned her father, and lived in the upper story of the house. There she occupied herself with shamanistic performances and everyone believed her to be insane. She was not insane, but became an evil spirit and endeavored to discharge diseases into Elliei and his cattle.

Elliei had many sons and daughters who were the progenitors of the Yakut. Tygyn was one of his sons. Ytyk, the protector of cattle, gave Elliei so many cattle and horses that he outranked Omogon in riches. Everything proceeded successfully, except that the eldest daughter of Omogon, enraged because Elliei did not marry her, gave diseases to the cattle and children of Elliei. Now, the Yakut are also troubled with diseases, as that one damned his descendants. The shamans know how to prevail against them. If Ürüŋ-Ayi-Toyon, Ytyk, and the shamans did not exist, the Yakut would surely die out, since the shamans beg the gods to protect the Yakut and to dispel the diseases.

V¹

Two Kirghiz men ran away from their people. The Yakut heard about it later from the Buryat. One of the fugitives was called Omogon; no one knew the name of the second man who died soon after reaching the place now inhabited by Yakut. The Buryat learned of their arrival through the thefts which were incessant for two years.

Once, in the summer, two women went to the woods to gather wild berries and did not return. The Buryat searched for them carefully, but could not find them. They discovered only the large footprints of two men. Following this trail they arrived at the upper course of the Lena River. There many tracks of men and cattle led ahead, and soon they discovered the former home of the two fugitives. After spending two years there they built a raft, and placing their cattle and the two kidnapped women on it, they descended the river to the north. The Buryat refused to pursue them farther since they knew they were dealing with dangerous and daring men.

¹This variant, edited by Pekarsky, E., *Traditions of the Origin of the Yakut (Publications of the East Siberian Division of the Russian Geographical Society, Irkutsk, 1925, in Russian)*, was recorded by P. N. Malygin in 1907 from the old Yakut, I. N. Nikiforov, in Yakut and translated verbatim into Russian, from which the present translation has been made.

Thus Omogon and his companion, together with their wives, settled on the plain of Lake Saisary, where the City of Yakutsk is now situated. Omogon's companion soon died and Omogon took his wife as a second consort. From these two wives, twelve sons and twelve daughters were born to him. They grew up successfully. One of the twelve sons became a shaman of benevolent spirits, a so-called white shaman. When it became time to marry, the brothers married their sisters.

Omogon loved his youngest daughter, a very pretty girl, very much. Guarding her from his sons, he kept her in seclusion during the night. One of his daughters was ugly and none of his sons would take her. Thus, two sons and two daughters remained unmarried. One of the two unmarried sons was the shaman who disapproved of marriage between brothers and sisters. Thus they all lived together, and became very rich. Omogon tried vainly to transform Lake Taloye (not far from Saisary) into a milky lake. To this end he ordered milk to be poured into the lake. But despite all his efforts, he could not get a milky lake. Thus they lived happily.

In the meantime, as the result of some misfortune, two Buryat, a father (Darkhan) and son (Er-Sogotokh-Elliei, i.e., lonesome Elliei), left their people and followed Omogon's trail, hoping to reach the people who had run away before him. They took with them a dog named Enugyas. On their way, before reaching the place where the city of Kirensk is now situated, Darkhan became ill. Feeling death approaching, he announced his last will to his son.

"I am near death. When I die, put my body in a grave on posts (*arangas*). You are a good man and you will not perish at random, my son. Follow the river and you will reach a place where people live. Do not part with Enugyas. When you go down the river, do not forget where the western tributaries fall into the Lena. At the southern cape will lie an uprooted larch tree with roots and branches. Float it on the river, then remove your clothing and sit on it astride, naked. Take the dog, Enugyas, crosswise on your knees, push the tree to the middle of the river and look at your reflection in the water. If a drove of horses is reflected, happiness will come to you; if you are to meet an evil fate, the tree will be reflected. In that case hang yourself in the forest with the string of your bow. Place your writings with my body in a hanging grave."

Expressing his last will, old Darkhan died. His son placed his corpse, together with their writings, in a hanging grave.

After that Er-Sogotokh-Elliei, in accordance with the will of his father, continued his journey, living by hunting. His dog drove wild

fowl to his master, who killed them with his arrows. On his way, he remembered his father's words, and, as he had predicted, on the southern shore of a river he found an uprooted larch tree, with the roots and branches. He stripped to his skin, threw the tree into the water with branches ahead, sat astride on it, and holding the dog crosswise on his knees, he pushed the tree to the middle of the river. He looked at his reflection and his tree mirrored a drove of horses. He was delighted at the sight.

After that, wishing to land somewhere, he maneuvered his tree to the south and reached a large island. Wondering at its size, he called it Toyon-Ary (Chief Island). Then he started to the north and reached the place which is now the Pokrovskaya Post Station.

Soon came the fall and cold weather. Elliei, being naked, wanted to winter there and built an earth hut. At that season migratory birds began to fly to the south and Er-Sogotokh-Elliei hunted them with his bow. He accumulated feathers in his earth hut. Thus he lived several days. Some of the feathers were blown into the water and were carried to the place where Omogon lived.

The women of Omogon's family who went for water noticed them, but told no one. When, the second day, the women found feathers in greater number, they told about them. When Omogon heard this, he said, "I have had a dream: a man seems to have come. Let eight horsemen try to find the man and bring him here." Accordingly, eight horsemen, each taking ten arrows started to look for the man.

Hearing the tramping of horses Elliei's dog began to bark and ran out of the earth hut to meet the horsemen, who perceiving the dog, began to shoot. They shot all their eighty arrows and could not kill the dog; nobody hit it. After they spent their supply of arrows they noticed the smoke coming from the earth hut. When they came nearer, a naked man looked out. The horsemen were frightened when they saw him and quickly returned home.

Reaching home they told their father they had found a man, who had a small-sized formidable looking animal with a very loud voice. "We tried to kill it; we used all our arrows and could not hit it. When we came nearer the earth hut we found a man looking out of it. We were very frightened, besides the little animal would not let us approach his master."

On hearing these words old Omogon became very angry with his sons and said, "You are bad people, you were frightened by this small animal which is called a dog. Go immediately, take some clothing with you, and bring the man here."

The eight sons started, taking their father's fur coat. They reached the place, but the dog barred them from its master. They waited and saw a man appear from the earth hut. They were frightened; however, they remained standing at some distance from him and began to beckon the naked man. Elliei understood this and, showing his naked body, made them comprehend that he needed some clothing. They tossed their father's fur coat to him. Elliei tried to put it on, but it was too small for him, so he wore it as a girdle and followed the horsemen with his dog.

Thus, Elliei arrived where Omogon lived. He saw that they had no houses, but lived in bark tents, summer and winter. He was invited into one of them. Omogon, seeing Elliei, was so frightened that he trembled, but hiding his fear, ordered that the guest be well treated and sheltered for the night.

On rising the following morning Omogon looked attentively at his guest and thought, "He will become a good worker; it is needless to kill him." So Omogon took him into his service, hoping to train him as a careful and diligent servant.

In the spring Omogon said he intended to keep him for the summer, but his wife protested, saying, "Kill this man." But Omogon replied, "Why is it necessary to kill such a good worker?" "You are always frightened when he appears," said his wife. The old man became angry and said, "Why should I fear him?" "I will show you that you are afraid of him," answered the old woman. "Well, show me," said Omogon.

Then she twisted some sinew threads and sewed some folds in the back of Omogon's fur coat and let him put it on, saying, "Put on the fur coat and sit down." He did as he was told. When Elliei, finishing his work, came into the hut, the folds burst. Hearing the report, the old man comprehended that he was really afraid of Elliei. He consulted his wife and they decided to give Elliei their favorite daughter in marriage so that he might lose his terror of him. Then they told Elliei that he might sleep with their beloved daughter. "Go, and sleep in the store-room," they said to him. "Well," Elliei answered, "later."

Omogon was angry, but they all went to bed as before. Early in the morning Elliei rose and went to watch the girls urinating. Then he saw that the good looking girl finished quickly, while the ugly one took much longer. When the girls entered the dwelling, Elliei went to inspect the place where they had urinated and noticed that the water of the ugly girl was divided into three streams. He thought she would be a better wife and would bear many children.

In the evening, Omogon again said to Elliei: "Go to sleep in the storehouse." But Elliei answered, "I shall sleep there," pointing to the place where the ugly girl slept. The old man was angry, but replied, "Well, go where you wish." In the morning, Omogon drove Elliei and his ugly daughter from his house, giving them one horn-less cow and one tail-less mare. Thus they left.

They settled not far from Omogon and set up a conical birchbark tent and sewed many birchbark vessels. They kept their pit fire smoking constantly, thus attracting Omogon's cattle. Elliei and his wife regularly milked Omogon's cattle and hoarded a great store of kumiss, butter, cream, and milk. Thus, Elliei, after accumulating many milk products arranged a milk festival called *Ysyakh* and invited his father-in-law. Omogon was angry and said, "How can you arrange a festival with the milk from only one tail-less mare; you are deriding me." He brandished his short dagger, and compelled Elliei to leave. All the sons and daughters of Omogon, except one, the shaman of benevolent spirits, came to the feast. The old woman wished to go, but Omogon would not permit her.

Elliei spread fresh grass and seated his guests in a circle. Then he lifted his goblet of kumiss to the head of the main beam, then to the east, and finally in the direction of the hearth, and poured its contents into the fire. Following this he became much excited and began a shamanistic performance. His speech (which was spoken through him by the spirit of the fire) was as follows:—

"Now, well, when as a child of another tribe I came hither and arranged a festival, to which Omogon did not come, being much too rich and satiated, I will lower his height and shorten his length." Hearing this, Omogon's two sons were enraged, and running to their father, told him what happened. Then Omogon, seizing his short dagger, hastened to his son-in-law with his sons, growling like a bear. Reaching Elliei's camp, he cut the birchbark door of the tent with his dagger, but at this moment his arms and legs became distorted. Seeing this, Omogon's sons took him in their arms and carried him home. The assembled guests departed, leaving the kumiss unfinished. Omogon became ill and soon died.

After their father's death, his sons, fearing that they too would die, left their old settlement, dispersed in different directions, and each settled where he pleased. Thus Elliei remained alone in the plains of Saisary, where the city of Yakutsk is now situated.

Historical Significance of Origin Traditions. To clarify the historical significance of the foregoing Yakut origin traditions, it will be

interesting to present (in translation) the interpretations of the late Professor W. Radloff and the student of the Yakut, Edward Pekarsky. Radloff¹ states:—

All these tales demonstrate that dim recollections of the earliest prehistoric times have been preserved in the Yakut traditions. They prove that the bulk of the people emigrated from the south and that the immigrants consisted of two elements, which are, naturally, impersonated in two epic heroes, Omogoi (Onogoi, Omogon, Ogonom) and Elliei (Ellei). In the first tale, Omogoi is directly represented as a Buryat (i.e., a Mongol) while Elliei appears in most of the tales as an alien newcomer, who occasionally confronts Omogoi and enters into his service. Many tales also mention his tall stature, handsomeness, and his white complexion, which rouse the love of Omogoi's daughters. This may be interpreted in favor of his belonging to the Turkic race. He also emerged as the stronger and more intelligent of the two heroes, who may enter into compact with deities, who in former times was in possession of written records which he had, however, lost on his northward journey. Omogoi unconsciously feels Elliei's mental power and trembles when the latter enters the house, although he looks down at him as at a stranger and does not want to admit at first that he may accept him as a son-in-law. However, Omogoi is defeated in the family conflict caused later by the choice of Elliei. Elliei's wealth and influence grew and he became the spiritual leader of the people, the founder of their religion, and he is regarded by his numerous posterity as the ancestor of the present Yakut people.

The circumstances, demonstrating to Omogoi his unconscious recognition of Elliei's innate power, are altered in different traditions and may be inferred from the comparison of many tales. In one a white horse skin is fastened by pegs, in another Omogoi's coat, without his knowledge, is secured to the ground by pegs so that Omogoi spills the kumiss when attempting to rise. I believe, therefore, that in the beginning the tradition ran as follows: Omogoi's wife asserts that he unconsciously fears Elliei and tremblingly rises when he enters. She wants him to prove her assertion and tells him to sit down on a white horse hide with a goblet filled with kumiss. Then, without his knowledge, she fastens his coat to the floor with pegs, and when Elliei enters, Omogoi, afraid of his power, rises. Since his coat is secured to the horse hide, he spills the kumiss, trembling with excitement. This proof of his innate and unconscious terror of Elliei compels him to become more closely allied with him.

A very similar passage is found in the Turkish cycle of Toktamsh-Khan, which was related to me in various places, for instance, among the Kurdak on the Irtysh.

When Idägä enters the house (of Toktamsh-Khan), the prince rises each time to answer his greeting. He himself did not realize it, but his wife said, "You rise when Idägä enters." But the prince answered, "I do not rise." After that she sewed the skirts of his coat to the pillow on which he sat. Thus he knew that he got up. Toktamsh-Khan said to his courtiers, "When Idägä enters, I rise and I do not know why I do this." His prophets said, "Later on this child will kill you."

An identical story is told of Toktamsh and Idägä-Pi by the Baraba-Tatars. With further details this tale was narrated to me in the Crimean village called Büyükh Khodshalar.

I do not believe that the agreement of the Yakut and Turkish traditions will prove that the Turkic tribe, which turkicized the Uriankhai was still in close contact

¹Radloff, *ibid.*, 81-83.

with its Turkish neighbors in the time of Toktamysh-Khan. We may be dealing here with an older Turkish tale of the foundling or stranger, *Idägä* (*Elliei*), which was later inserted in the Toktamysh cycle. At any rate, we must admit that this tradition was transplanted on the banks of the Lena by Turkish immigrants and that *Elliei* should be regarded as a representative of Turkdom.

Finally, I wish to refer to still another incident in the Yakut traditions, which has been widely distributed among the Turkic tribes of Siberia. I refer to the passage in which the Yakut hero, *Tygyn*, presents the first Russians as much land for their use as could be contained in an oxskin. The Russians outwitted him, cutting the hide into strips narrow enough to extend round a piece of land sufficient to build a fortress on it in the future. We find the same tradition among the Tobol-Tatars and Baraba-Tatars, according to which *Kutzum-Khan* makes a similar promise to the Russian conqueror of Siberia, *Yermak*, and is outwitted by the latter.

As the same trick was used in the foundation of Carthage, we are concerned here with a tradition which was very early transmitted to the Turks from the south.

When an incident like this trick is found in the traditions of two different peoples who had no previous intercourse, and one of whom were the Russian conquerors, it may be explained, I believe, by the fact that since the Russians built fortresses and cities in the midst of nomadic cattle breeders, or wandering hunters, the tradition of city-building may refer to the Russians alone, especially since the former connections of the Yakut with China and Central Asia were already long forgotten.

Now, let us turn to *Pekarsky*,¹ who says:—

The question of the origin of the Yakut is one of the most obscure in their history. We have at our disposal no authentic historical data to throw decisive light on this question. Therefore, the investigator must draw to his aid the results of linguistic, archaeological, anthropological, and ethnographical investigations, to obtain some indications as to the origin of this gifted people who have preserved, despite very unfavorable conditions of life, their comprehensive language and the products of their creative genius, and, what is more remarkable, their physical type. Not only did the Yakut assimilate with surrounding tribes, but they are themselves assimilating their neighbors more or less, frequently to such an extent as to eliminate their native language entirely.

Investigators of the Yakut long ago began to find interest in their former fate. This is shown by the collection and publication of Yakut origin traditions. In the absence of chronicles these traditions may give certain historical data.

PREHISTORY

In prehistoric times, beginning with the northern retreat of the glaciers, many southern peoples who had to adjust themselves to the severe conditions of life in the northern forests or the polar tundra, occupied Siberia. Some of the newcomers, like the Tungus, lost many of their former culture traits, and became reindeer breeders or hunters, while others, like the Yakut, were able in the far north to retain their cattle-breeding culture of the Central Asiatic steppes. But this north-

¹*Pekarsky, ibid.*

ward migration was involuntary; the southerners were forced out from their former habitat by the competition of alien tribes. Naturally, in the course of their wandering, they left some traces which have been disclosed by the work of archaeologists. Skeletal finds also have shown that northern Siberia was primarily inhabited by a long-headed people of the Nordic type who had come from the west, and who were assimilated or else annihilated by Mongoloid newcomers from the south. Many of these questions still await solution through the work of archaeologists.

We have some knowledge of prehistoric Yakut monuments through the recent work of Russian archaeologists, chiefly Petri, whose excavations in the region of Lake Baikal revealed many remains of a horse and cattle breeding tribe, in all probability, the prehistoric Yakut.¹

The identifications by the chief zoologist of the Russian Academy of Sciences, Bialanitski-Birula, of animal bones found at the Murino sites and the caves of Orkhon show that these are chiefly the remains of domesticated animals—of oxen, rams, goats, and horses. Remains of wild animals, the products of hunting, are very scarce, proving that the people were cattle breeders. Besides, no traces of agriculture were found to the north of Lake Baikal, presenting negative evidence that the prehistoric inhabitants were herders. Further, Bialanitski-Birula pointed out that the ox of these people, like that of the Yakut, was a cross-breed of the yak. Among the iron arrows were found many with bifurcated heads, a characteristic of Yakut arrows.² The iron knives and scissors found have the same distinguishing marks as Yakut knives, as will be shown in the discussion of their iron industry. The horseshoe found in the excavations is exactly like the Yakut horseshoe; it is narrow, with holes for nails and one calk in the middle. The Siberian natives, even in stony mountainous places, seldom shoe their horses. The iron bits of an ancient bridle consisted of two unequal parts, without appendages in the corners. This may be explained by the manner in which the rider held the reins on the left side of the horse as do the present Yakut. Modern Yakut bits consist of two equal parts, a form which may be regarded as having been adopted from the Russians, from whom the Yakut learned to harness horses to sledges and carts, for which long reins are necessary. Formerly, the Yakut used the horse only as a riding and pack animal. Appurtenances of horse harness show that the people bred horses. An iron sickle for hay making was found by Petri. It is quite different from the Russian form and resembles the present Yakut sickle.

¹Petri, E. B., *The Prehistoric Blacksmiths of Cis-Baikalia*. Chita, 1923. (In Russian).

²See Sieroszevski, V. A., *The Yakut*. Vol. 1 (Published by the Imperial Russian Geographical Society, St. Petersburg, 1896 in Russian).

An iron hook for digging edible roots and plants and iron fish hooks were also found.

In the caves of Orkhon were pieces of birchbark sewn with horsehair, which is the characteristic Yakut sewing material for the seams on birchbark baskets, kumiss vessels, and the covering of summer tents. Other Siberian peoples, as well as the Russians, manufacture jointed birchbark vessels. The Tungus sometimes sew their birchbark vessels very roughly with sinew thread. The fine technique of horsehair sewing for practical and ornamental purposes will be discussed later (Pages 176, 212).

The remains of square earth huts are reminiscent of the present winter dwellings of the Yakut. The ornamentation of clay vessels, fragments of which were found, is similar to the present Yakut decorative motives; it remains to be demonstrated, however, that the old Yakut potters brought their ceramic art to Yakut Province. Neither Tungus nor Buryat use clay vessels or previously knew the art of pottery making.

Among the finds is a steel for striking fire. There is evidence to show that the Yakut passed directly from neolithic culture to an iron age. Fragments of bronze kettles found in some supposed Yakut sites may be from kettles imported from the south. That the Yakut were and still are skilful iron workers is an acknowledged fact.

Spindle whorls were made of a kind of hard stone coal (slate?). Of particular interest was one spindle, found in Kurumchinakh, which was covered with writing (letters). In comparing these characters with those of various alphabets, it may readily be observed that many of them are similar, as far as they can be deciphered, to the characters of the Orkhon alphabet. There were thirty-seven symbols of which twenty-one are letters and sixteen indistinct, effaced signs, including perhaps mere scratches. The twenty-one letters appear to be an exact reproduction of the Yenisei-Orkhon characters. There are eighteen consonants and three vowels. Some of the characters are repeated and in all there are ten different symbols. The discovery of these writings so far to the north is of great interest. The ancestors of the Yakut, who, in remote times, emigrated from northern Mongolia, undoubtedly knew the Orkhon alphabet and this may explain the Yakut traditions as to the loss of their writings on the way to Yakutsk Province.

We must analyze some discrepancies in the account of the finds representing supposedly old Yakut culture. The excavations were made in old earth huts and caves. Thus this horse and cattle-breeding tribe must have been nomadic, yet, at the same time, must have had permanent dwellings. This may be explained by their double occupation. Iron

mining, smelting, forging, and smithing required a sedentary life. While some families of a clan, or even some members of a family, were engaged in the iron industry, their relatives nomadized with their herds. Caves may have served as temporary shelters during the winter when the wet walls became frozen and a fire was used as protection from the cold.

Objects of Yakut culture were traced by Petri and other Siberian archaeologists in excavations not only in Cis-Baikalia, but also in the valleys of the Birusa, Angara, Murina, Kuda, Selenga, Kichega, and Tunka rivers; on the upper course of the Lena, and in the Orkhon country. Thus, the Yakut must have been the horse and cattle breeding tribe which formerly lived around Lake Baikal and in the region of the upper course of the Lena. Having been separated from the common Turkic stem, they were gradually forced to the north, through Cis-Baikalia, the northern districts of Irkutsk Province, and then along the valley of the Lena to their present abode. Archaeological research along this route and in Yakut Province may give a firmer foundation for the above conjectures as to Yakut prehistory. Unfortunately, nothing has been accomplished in this field of investigation in the past.

But where are we to search for the original home of the Yakut? We have previously noted that one tradition connects the Yakut with the Kirghiz. Radloff connects the Yakut with the Soyot or Uriankhai of the Sayan region. Samoilovich, the student of the Turkic languages, classifies the Yakut and Uigur in one group.

In connection with an iron tobacco pipe of Chinese form, found in his Cis-Baikalian excavations, Petri states that the Yakut also manufacture such pipes at present and refers to Sieroszevski¹ who remarks that the pipe pattern was adopted from the Chinese by the ancestors of the Yakut in remote times when they lived somewhere in central Asia and had an active intercourse with China.

HISTORICAL MIGRATIONS

In the thirteenth century, the Yakut were already in the region of Lake Baikal, having been isolated from other Turkic tribes by the Mongol invasion of that century. The Mongolian Buryat, who came from the banks of the Upper Amur, forced the Yakut, with their horses and cattle, to move down the Lena River. On their way to their present habitat, they fought the war-like Tungus, who finally retreated to the mountainous portions of Yakut Province and the Yakut occupied the Lena River Valley to its mouth, and all its tributaries. After the occu-

¹*ibid.*, 345, Fig. 61.

pation of the Lena River (1632) by the Russians and the establishment of the fortress of Yakutsk, some Yakut divisions moved to the most distant parts of the country, and even crossed the Verkhoyansk Mountain Ridge to escape taxation. After curbing the resistance of the Tungus and Yukaghir, the Yakut settled the Yana, Indighirka, and Kolyma valleys, as well as some localities between these rivers. About the same time, some Yakut crossed the Stanovoi Mountain Ridge and came to the shore of the Okhotsk Sea. Some hunting and trading Yakut went to the south of the Stanovoi Ridge and appeared in the valleys of the northern tributaries of the Amur River.

INITIAL CONTACT WITH RUSSIANS

Starting from the Mangaseya settlement and Yeniseisk the Russians approached the Yakut country by two routes. In 1601 Mangaseya was founded on the Taz River, but the settlement was soon transferred to the Yenisei River at the mouth of the Turukhan. Yeniseisk was founded in 1619 and about the same time the Yeniseisk Russians first learned of a great river to the east, the Lena. The same rumor reached Mangaseya a year later. While the route from Yeniseisk to the Lena was along the Upper Tunguska, that from Mangaseya was up the Lower Tunguska. Both these rivers are eastern tributaries of the Yenisei.

The Turukhantzy, a hunting party of forty, led by a man named Penda, used the first route shortly before 1630. They ascended the Lower Tunguska, traversed the Chechinsky hills, and reaching the Lena, descended it to the present site of Yakutsk. Then he returned up the river to where Verkholsk is now situated. Thence he made his way across the Buryat steppe to the Angara River, a tributary of the Upper Tunguska, ascended it, and returned to Turukhansk by way of the Upper Tunguska and Yenisei. This was a remarkable journey for the time.

The Mangaseya Cossacks in 1630 selected a route along the Viliui River, a tributary of the Lena. The leader, Martin Vasilyev, with thirty Cossacks proceeded from the Lower Tunguska to the Viliui River, descended it to the Lena, and exacted tribute from the Yakut they encountered. According to his report the Chona and Viliui rivers were at that time inhabited by Tungus clans.¹

The development of the relations between the Russians and the Yakut will be further discussed in the section on History.

¹Fischer, I., *The History of Siberia, 1774* (In Russian), 361-362; Berg, L., *History of Geographical Discoveries in the Yakut Country (Iakoutie. A Series of Articles published under the editorship of P. Wittenburg by the Russian Academy of Sciences*, pp. 1-38, Leningrad, 1927, in Russian).

HABITAT

Yakut settlements occupy almost the whole of northeastern Siberia. Their territory extends eastward from the Lena to the Kolyma River for about 2000 miles and from the Arctic Sea to its southern limits about 1056 miles. Other tribes are settled or roam within these boundaries and Yakut villages are encountered beyond the area indicated, as will be seen below (Fig. 107). According to Strelbitzky¹ Yakutsk Province occupies an area of 1,533,255 square miles (3,489,689 square versts).

PHYSICAL GEOGRAPHY OF YAKUTSK PROVINCE

Yakutsk Province was formerly divided into five districts: Olekminsk, Yakutsk, Viliuisk, Verkhoyansk, and Kolymsk. Two new districts have recently been established by the Soviet Government: the mountainous country on the upper course of the Aldan River, a tributary of the Lena, rich in gold, was designated as a separate district named Aldan, and a part of the Verkhoyansk District, the valley of the lower Lena River, rich in fish and peltry, was named Bulun. But, to avoid confusion in describing the physical features of different localities, I shall employ the former nomenclature.

Both northern districts, Verkhoyansk and Kolymsk, which I traversed in different directions will be reviewed. The route between Yakutsk and Sredne Kolymsk, through Verkhoyansk and over the Verkhoyansk Ridge, was covered four times, twice (1895, 1897) from west to east and twice (1888, 1902) in the opposite direction. The eastward and westward journeys were made in winter on dog and reindeer sledges. One trip from east to west was accomplished during the summer on horseback. During the winter of 1897 I traveled over the tundra on reindeer sledges from the Kolyma River to Bulun on the Lena River. At some points I touched the seacoast, as at the mouth of the Khroma River. I also made some side trips, visiting the Yakut settlements on Lake Senkel and the Soldatovo River; I went from the Yakut settlement, Alayikha, on the Indighirka River, to the Russian settlement, Russkoye Ustye, at the mouth of the same river; from Bulun to the islands at the mouth of the Lena River; from Nishne Kolymsk to the mountainous region of the Big and Small Anui rivers, tributaries of the Kolyma; from Verkhne Kolymsk to the Yassachnaya, Nelelnaya, and Korkodon rivers. I visited the last three rivers three times (1896, 1897) going twice from Verkhoyansk and once (1902) from the shores of the

¹Strelbitzky, I. A., *The Calculation of the Surface of the Russian Empire*, 1874. In Russian.

Okhotsk Sea over the Stanovoi Ridge. I ascended the Omolon River about 150 miles from its mouth in 1897 and crossed it in its upper course in 1902 en route from the Okhotsk Sea.

Although my chief objectives were anthropological, I endeavored to obtain geographical and topographical data, particularly in regions not previously visited. With this end in view I always carried the necessary instruments, compasses, sling thermometers, aneroid barometers, boiling point thermometers, and others, and kept systematic diaries.

THE PERMANENT FROZEN SOIL

The territory of the Yakut lies within the province in which is distributed the so-called "permanent frozen soil," "fossil ice," "ground ice" or better, "underground ice." This factor which influences the climate and consequently the population of the country merits some consideration. The vast area occupied by the underground ice in northern Asia equals about 7,000,000 square versts, or 3,076,000 square miles, or only a little less than the area of Europe. Another peculiarity of the wide distribution of the underground ice in Asia is its extension far to the south. The existence of underground ice in polar regions, where relatively little heat is radiated from the sun is understandable, but when we observe that in some places this underground ice is found as far south as the latitudes of Kief, Paris, or Vienna, the question becomes complicated.

There are several theories of the origin of underground ice. First, the frost cracks the surface, the snowdrifts and the frozen soil are compressed by the cold and cracked; the melted snow penetrates these crevasses, during the spring and summer expanding them vertically as well as horizontally, depending, however, on the composition of the ground. There, because of the low temperature of the soil, it freezes, forming ice veins, or beds. Especially when they are shallow, the underground ice beds increase the humidity of the surface soil and lead to the formation of morasses and the development of swamp vegetation, particularly turf-mosses. Such soil, even omitting from consideration its geographic position and climatic condition, produces only a few species of vegetation and the arboreal flora is usually reduced to two varieties: the Siberian larch (*Larix sibirica*), and the birch (*Betula alba* or *Betula nana*). Even these appear only as rugged trunks or crooked stunted bushes, the roots of which spread on the surface and do not penetrate deeply into the soil.

No one has investigated the influence of the frozen soil on the fauna. But, as far as we know, many animals adjust themselves to these condi-

tions, not only those living on the surface of the earth or in trees, like the squirrel, the flying-squirrel (*Pteromys*), polar hare, wolf, elk, reindeer, musk-deer, mountain sheep, and others, but also those burrowing in holes and dens, like bears, otters, foxes, marmots, spermophiles, mice, lemmings. According to the reports of hunters, some of the animals which ordinarily live in dens build their nests in hollow trees, because of the swampiness of the upper strata of the ground.

Of greater interest is the important rôle this frozen soil plays in the conservation of the remains of the extinct mammoth and rhinoceros. These are found, not in the ice itself, but in the earth above it. The mammoth belongs to the post-Tertiary or Pleistocene epoch and was contemporaneous with man. Its remains were found in central Europe, northern Asia, and the northern part of the American continent; the still extant rhinoceros is no longer found in Europe and North Asia. In America it became extinct before the end of the Pliocene period.

The underground ice of Alaska and northern North America, in general, has been described by many American explorers. One of the latest is Vilhjalmur Stefansson. However, nowhere in America are ice beds known to extend as far to the south as they do in northern Asia.

THE TUNDRA

The usual conception of the whole northern region as a swampy tundra sloping down to the Arctic Coast is not quite correct. Northern Siberia includes several mountain ranges which in many places extend to the Arctic Coast and continue on to the islands in the Arctic Ocean. The greatest extent of tundra-like plains is found in the valleys of the middle and lower courses of the great rivers and their tributaries. The largest swampy tundras are found between the Kolyma and Alaseya rivers and in the valley of the Indighirka River. These areas are studded with many lakes, large and small, connected with one another or with the great rivers by small streams. Since the underground glaciers thaw out late in the season in summer, these swampy tundras constitute a greater barrier to communication than the mountain ranges. Consequently, the Yakut saddle and pack horses, as well as the Tungus riding reindeer, sink into the swamps up to their bodies. As might be expected, under such conditions, long journeys or nomadic camps are very rare in the summer.

The natives call treeless places on hills or mountain slopes "dry" or "stony" tundras. Many of these dry tundras skirt the swampy areas and thus afford passable detours as substitutes for the shorter routes through the almost impenetrable swamps.

OROGRAPHY

The Verkhoyansk, a section of the Stanovoi Range, is the most important mountain range in the Verkhoyansk-Kolymsk country. It branches off from the latter near 140° east, Greenwich, and extends westward in the form of a bent bow, to the eastern bank of the Lena River. In many places the Verkhoyansk Range reaches a greater altitude than that of the Stanovoi Mountains. For instance, the pass from Yakutsk to Verkhoyansk, according to my own determinations, is at an altitude of 1550 meters above sea level,¹ while the neighboring mountain tops, which are bare ridges or peaks separated by deep ravines rise from 250 to 350 meters above the pass. On the other hand, the pass over the Stanovoi Mountains, which I crossed on my way from the Gishiga Valley to the Omolon River (1902) is only 900 meters high.²

The Verkhoyansk Range consists of several parallel ridges and the spurs, branching off from it almost at right angles, form the watersheds of the rivers which, rising in the Verkhoyansk Range, flow to the north. The following are the chief spurs of the Verkhoyansk Range, on the north, toward the Arctic Ocean: 1, the Kharalakh Mountains which form the watershed between the Lena³ and Yana rivers; 2, the Tas-Khayakhtakh Range, between the Yana and Indighirka rivers; and 3, the Tomuskhaya Range, between the Indighirka and Kolyma rivers. This last divides into two ranges at about 67° north latitude. One branch, called the Polovinsky or Polovinovsky Range, forms the watershed between the Kolyma and Alaseya rivers; the other, the Alaseya Range, separates the Alaseya and Indighirka rivers. The last of these ranges forms the chief branch of the Tomuskhaya Range. All these ranges slope somewhat toward the ocean and their height, which is from 400 to 1000 meters, is not such as to constitute a barrier between the western and eastern parts of the country. The river valleys serve as a means of intercourse in a meridional direction. The Kolyma River is about 1243 miles long; both the Yana and the Indighirka rivers are about 932 miles long.

Returning to the orography of the Verkhoyansk-Kolymsk region, it should be noted that Chersky, the geologist, en route from Yakutsk to

¹Baron Maydell, as well as Doctor Bunge of Baron Toll's expedition found it to be about 1500 meters. Maydell, Baron Gerhard, Reisen und Forschungen im Jakutischen Gebiet Ostsiбириs in den Jahren 1861-1871 (*Kaiserliche Akademie der Wissenschaften*, Vol. 1, St. Petersburg, 1893; Vol. 2 and Atlas, St. Petersburg, 1896). Vol. 1, 33.

²The highest pass of the Stanovoi Ridge, en route from Yakutsk to Udskoi-Ostrog, a settlement at the mouth of the Uda River, as determined by Middendorff (Reise, I, 133), is 1290 meters. The two highest peaks of the Stanovoi Ridge on the way from Yakutsk to Okhotsk are 1260 and 825 meters high, respectively, according to Ermann (II, 378, 392). According to Stephanovich (*From Yakutsk to Ayan*, Irkutsk, 1896 [In Russian], 106-108) the two passes between Yakutsk and Ayan are 940 and 996 meters high.

³It should be noted that the Lena River which is about 4290 miles long does not rise in the Verkhoyansk Range, but far south of Yakutsk Province in the low mountains of Cisbaikalia, at no great distance from Lake Baikal.

Verkhne Kolymsk through the upper course of the Indighirka River determined the greatest height to be 2362 meters,¹ while recently, another geologist, Sergei Obruchev, observed a maximum altitude of 3300 meters² in the upper course of the Indighirka River. His statements concerning the inhabitants of the region are not consistent with the actual facts. He believes the Yakut are Mongol and that the Tungus are the aborigines of the country. Actually the Yakut are Turkic. Both tribes are immigrants: the Yakut from the Baikal country and the Tungus from the Amur region, or perhaps from southeastern China.

FLORA

Despite the vast extent of territory between the Kolyma and the Lena rivers and the Verkhoyansk Range and the Arctic Ocean, the flora is confined to few species. This may be explained by its geographical position and the severity of the climate. Wherever the growing period lasts only about three months the flora cannot be rich. Of trees there are but few species. Of pines there are only the East Siberian larch (*Larix dahurica*)³ and the stone pine (*Pinus pumila*). None of the other Siberian coniferous trees, such as fir, pine, spruce, Siberian larch, are found north of the Verkhoyansk Range. The spruce disappears to the north of Olekminsk⁴ in the Lena Valley.

Of deciduous trees, we find two species of poplar, the aspen, the birch, and several species of willow. Usually, the northern limit of arboreal vegetation is placed at the sixty-ninth degree of latitude, but east of the Kolyma River it lies farther to the south, reaching the sixty-eighth degree of latitude at Chaun Bay, while at Bering Sea it does not extend beyond the sixtieth degree of latitude. As a matter of fact, the northern limit of tree growth cannot be definitely delineated, for, varying with local conditions, it extends into the tundra generally following the river valleys; sometimes the Arctic tundra cuts deeply into the tree zone. In addition, south of the northern forest limits are sporadically scattered tracts of treeless tundra of various sizes, altogether similar in character and vegetation to those in the Arctic zone.

The tree found farthest to the north is the East Siberian larch which like the American fir also reaches the highest altitudes. I observed it

¹Chersky, I. D., Preliminary Account of the Investigations of the Kolyma, Indighirka, and Yana River Region (*Supplement to Vol. 73, Memoirs of the Imperial Russian Academy of Sciences*, St. Petersburg, 1893).

²Discovery of a Great Range in North-East Siberia (*The Geographical Journal*, vol. 70, pp. 464-470, London, 1927).

³To the west of the Yenisei River is found the Siberian larch (*Larix Siberica*) instead of the Dahurian larch.

⁴East of the Stanovoi Ridge the spruce disappears near the Uda River and the pines and firs extend only as far north as Okhotsk.

on the western as well as on the eastern slopes of the Stanovoi Mountains. Poplar, aspen, and birch (*Betula alba*) are found to the south in the river valleys. The stone pine (*Pinus pumila*) occurs on the mountain slopes. According to my travel diary, on the eastern slope of the Stanovoi Ridge, in the valley of the upper course of the Gishiga River, the poplar and aspen disappear at 515 meters above sea level, the stone pine at an altitude of about 540 meters, while the larch is found at 585 meters, the limit of forest growth.

The distribution of the larch and the stone pine on the eastward and westward slopes of the Stanovoi Ridge differs materially. In Koryak territory the larch disappears at a considerable distance from the edge of the forest zone; in the direction of Bering and Okhotsk seas, I found that the deciduous varieties, the poplar and the aspen, form the limits of arboreal growth in the plains, while the stone pine was highest up on the mountains. On the Taigonos Peninsula I saw the stone pine at an altitude of about 500 meters, absolute height, while the deciduous trees, poplar, aspen, and alder, remained far below in the valleys and gorges. The stone pines of the last mentioned localities are tall trees and not low shrubs like the stone pine of the west.

To the north of the east Siberian larch we find in northeastern Asia only crooked stunted bushes of the dwarf birch (*Betula nana*), Arctic willow, *Andromeda*, *Empetrum nigrum*, and *Ledum palustra* E. which hide their rugged trunks under a covering of mosses and lichens, and send upward only small, weak shoots. This area extends to the Arctic coast.

The cloud berry (*Rubus chamaemorus*), blueberry (*Vaccinium uliginosum*), bilberry (*Vaccinium vitis idaea*), and crow berry (*Empetrum nigrum*) grow among the mosses which cover the swampy places. In some drier, stony or hilly parts, the tundra is covered with various species of lichens, which are eaten by the wild and domesticated reindeer. Often the mossy tundra alternates with areas covered with lichens. In some places the tundra is enlivened by phanerogamous plants—*Rosaceae*, *Cyperaceae*, and others. Sedge grasses cover the round mossy hummocks of the swampy tundra.

To the south of the northern limit of arboreal vegetation, mountain passes, and other high land at an elevation greater than three to four hundred meters above sea level, are covered with tundra corresponding in every way to the Arctic tundra.

The territory from the northern limit of arboreal growth, southward as far as the slopes of the Verkhoyansk Range and eastward to the passes over the Stanovoi Mountains, is covered with virgin forests, composed

chiefly of the East Siberian larch (*Larix dahurica*). In the southern part of the region the poplar, aspen, and birch appear and attain considerable size, trunks three meters and even more in circumference having been encountered. Such trees grow, for instance, in the valley of the Korkodon River where I found full-sized willows. On the upper reaches of the Kolyma River I saw *Prunus padus*, mountain ash, three species of currants, raspberries (*Rubus idaeus* L.), wild rose (*Rubus arctica*). Birch trees are of considerable size. From the southern part of the territory birch wood is carried to the north for the manufacture of dog and reindeer sledges. Rafts of larches are floated down the river for building log huts of the Russian type. The trunks of poplar trees are used for dug-out boats.

On the whole, however, the flora of the polar region is little known, but judging from the data on hand, it may be distinguished by the absence of endogenous plants. This is due to the late retreat of the glacier from the region. On the other hand, the unity of Asia and America in former times resulted in the transfer of some American plants to Asia. Thus Middendorff on the Taimyr Peninsula and Nordenskiöld on the Chukchee Peninsula, discovered a considerable number of species peculiar to the Arctic regions of both the Old and the New worlds.

In 1925 the Russian Academy of Sciences appointed a commission for the investigation of the Yakut Autonomous Socialistic Republic and several expeditions of specialists in various sciences were sent to Yakutsk Province. The first volume of the Memoirs on the vegetation of Yakutsk Province by Professor V. L. Komarov¹ contains two maps, one showing the routes of explorers of the country, including that of the writer, and the other, the northern limits of the distribution of trees. In general, Komarov's graphic presentation coincides with my observations, given above, but I may add some data from Komarov's map. He also shows the Dahurian larch to be the tree which reaches farthest to the north, but on the Lena River it reaches the seventy-second degree of latitude and on the Khatanga River even a little farther northward. The Siberian larch (*Larix Siberica*) which is found to the west of the Yenisei River in place of the Dahurian larch is shown by Komarov in the upper reaches of the Viliui River at the sixty-first degree of latitude. The fir (*Pinus picea* L.) which at the Khatanga River is near the northern limit of arboreal growth, not far from the Dahurian larch, to the north of Latitude 72, extends gradually to the south, reaching Latitude 59 at

¹Komarov, V. L., Memoirs of the Commission on the Investigation of the Yakut Autonomous Soviet Socialistic Republic, Vol. 1, Introduction to the Study of the Flora of Yakutii (*Academy of Sciences*, Leningrad, 1926, in Russian).

Yamsk on the Okhotsk Sea. The northern limit of the aspen (*Populus tremula*) is along the 68th degree of latitude.

FAUNA

Only a few species of land mammals are represented in northern Siberia. The genera are exclusively of holarctic types, found in both Arctic America and Asia, but in more or less differentiated forms on the two continents. There is unquestionably a close relationship between the forms of boreal mammals inhabiting the two continents—a relationship so intimate that it could only have been brought about through a land bridge formerly connecting the two areas.

About forty species occur in northern Asia. The brown bear (*Ursus arctus*) is particularly numerous in Kamchatka. The polar bear (*Ursus maritimus*) rarely visits the continent, as it lives on the islands, or else on the ice floes of the Arctic. Wolves (*Canis lupus*) keep to the open plains where they hunt reindeer. Red, gray, and dark foxes (*Canis vulpes*) are found everywhere, on the tundra, in the mountains, and in the forests. White and blue Arctic foxes (*Canis lagopus*) are typical tundra animals. Of the smaller carnivoræ, the ermine (*Mustela erminio*) and weasel (*Mustela vulgaris*) may be mentioned. The squirrel (*Sciurus vulgaris*) lives on trees and is absent in the tundra. In the forest zone the flying squirrel (*Pteramys*) is also found. Another rodent is the polar hare (*Lepus timidus*) which occurs in great numbers.

To the north of the Verkhoyansk Ridge three species of fur-bearing animals have been completely exterminated by hunters. These are: the sable (*Mustela zibellina*), the wolverene (*Gulo borealis*), and the lynx (*Felis lynx*). The otter (*Lutra vulgaris*) is also rare.

Of the cervidæ, we find the elk (*Cervus alces*), reindeer (*Cervus tarandus*), and, in the mountains, the musk deer (*Moschus moschiferus*). In some of the mountains occurs another ruminant, the mountain sheep (*Ovis nivicola*). In northern Siberia are also found: the Pallas ground squirrel (*Entomios asiaticus*), Siberian marmot (*Arctomys*), and Siberian spermophile (*Citellus*). There are several species of black and red-backed mice and lemmings. The author found, according to the determination of the late Professor J. A. Allen, two new species: the Kolyma red-backed mouse (*Evotomys Jochelsoni*) and the Kolyma pike (*Ochotona Kolymensis*).

Sea fish which ascend the rivers in spring and summer from the Arctic Ocean differ from the fish of the Okhotsk and Bering seas. While the fish migrating from the Arctic Ocean consist chiefly of *Coregonidae*

(*Coregonus leucichtys*, *C. Omul*, *C. Muksun*, *C. clupoides*), the chief catch of the natives on the shores of Okhotsk and Bering seas consists of salmon of the genus *Oncorhynchus*; the dog salmon (*O. lagocephalus* or *O. keta*), the humpback salmon (*O. proteus* or *O. horbusha*), the red salmon (*O. lycaodon* or *O. niarka*), the chawicha (*Salmo orientalis*), and some others. With the migrating fish coming from the Arctic Ocean belong also the starlet (*Acipenser ruthenus*) and the sturgeon (*Acipenser sturio*).

Many coregonidae and other species of fish live continuously in the Arctic rivers and in the numerous tundra lakes.

POPULATION OF THE POLAR REGION

The population to the north of the Verkhoyansk Ridge is very small. This region has only 0.01 man to a quadratic mile, or 1 man to 100 square miles. Settlements are confined to the river valleys and the shores of large lakes abounding in fish. The tundra dweller of Siberia seldom settles on the seacoast or on the adjacent islands, as do the American Eskimo. Since off shore the sea is quite shallow the hunting of sea mammals has not been developed; for instance, the ocean between the mouth of the Kolyma River and the Sviatoi Nos to the west is only seven meters deep at a distance of ten or twenty miles from shore. West of the Chukchee are no sea-going peoples and no skin boats. Late in the fall, when snowstorms begin to rage on the tundra, the nomadic natives wander southward to the protection of the forests.

The Chukchee and Yukaghir are regarded as indigenous tribes of the region. The Tungus were forced to the Arctic region when the Yakut, migrating from the south, occupied Yakut Province. In their turn, the Yakut crossed the Verkhoyansk Ridge when the Russian conquerors invaded the Lena country and were followed to the Arctic region by Russians who settled at the mouths of the rivers. The climate is unfit for agriculture, but the Yakut introduced horned cattle and horses. Cattle-breeding, however, also encounters many obstacles: the grasses are of poor quality, the haying and fishing seasons coincide, and for nine months of the year the soil is covered with a deep layer of snow. In spite of the abundance of fish, famines are frequent, owing to lack of cooperation, methods of conservation, and foresight. The basic economic foundation of Arctic Siberia is the domesticated reindeer. The Yakut, as well as all the other tribes of the region, both aboriginal and immigrant, are endeavoring to acquire the reindeer, an important factor in their welfare.

The Olekminsk District. The Olekminsk District in the south of Yakutsk Province is considerably smaller than others of the province as a part of it was annexed to the Vitimsk District of Irkutsk Province, when the gold mining region of Vitim was developed. At present it is confined to the valley of the Olekma River and to a small area to the north of the Lena River. The district town of Olekminsk is situated on the east bank of the Lena River not far from the mouth of its tributary, the Olekma River. Olekminsk District is a mountainous region and the Yakut population of about 10,000 is mainly concentrated in the Lena Valley, while on the tributaries of the Lena and in the mountains the nomadic Tungus predominate. The Yakut form one administrative unit, the Olekminsk *Ulus*, which is divided into six *naslegs* and forty-four clans. The largest *nasleg* is the Second Meitsky which includes fourteen clans.

The Viliuisk District. Viliuisk District lies beyond the principal lines of communication. It has no high mountain ridges like those bordering the Yakutsk District and is covered with dense forests called *taiga*. As has been previously stated, the northern part of the former Viliuisk District, which included the west bank of the lower course of the Lena, a region rich in fish, furs, and mammoth tusks, was recently detached from it to form a new district, named Bulun, after a Yakut fishing and trading post on the lower course of the Lena. At present the new Bulun District comprises a vast territory between the seventieth degree of north latitude and the Polar Sea and the Indighirka and Khatanga rivers. The Khatanga River is the boundary line between the Province of Yakutsk and Yeniseisk. As formerly constituted, Viliuisk consisted of four administrative divisions called *ulus* (Suntar, Markha, Upper-Viliuisk, and Middle Viliuisk *uluses*). The Suntar *Ulus* was divided into fourteen *naslegs* comprising seventy-five clans; the Markhinsk *ulus* had sixteen *naslegs* comprising eighty-six clans; the Upper Viliuisk *ulus* had twelve *naslegs* and forty-two clans; the Middle Viliuisk *ulus* had fourteen *naslegs* with forty-one clans. The population of about 67,000 is divided into 244 clans.

The Yakutsk District. The former Yakutsk District is now divided into two districts: Yakutsk and Aldan. The latter occupies the valley of the Aldan River, an eastern tributary of the Lena, and its tributaries. We will review the district in accordance with its former boundaries. Second in size after the Verkhoyansk District, Yakutsk District assumes first place in density of population. The table land between the Lena River and its tributary, the Aldan, is most heavily populated. Yakutsk

District is divided into eight *uluses*: 1, the East Khangalas *ulus* has twelve *naslegs*, including fifty-two clans, numbering about 14,500 people; 2, the West Khangalas *ulus* has nineteen *naslegs* which include sixty-seven clans with a population of about 22,000; 3, the Namsky *ulus* has seventeen *naslegs* and eighty-seven clans with a population of 17,550; 4, the Meghinsky *ulus* has sixteen *naslegs*, sixty-eight clans, and a population of 20,036; 5, the Borogon *ulus* has thirteen *naslegs*, forty-five clans, and a population of about 9,700; 6, The Bayagantai *ulus* has nine *naslegs*, 143 clans, and a population of 9,292; 7, the Baturus *ulus* has thirty-one *naslegs*, 107 clans, and 30,335 people; 8, the Dupsun *ulus* has eight *naslegs*, twenty-seven clans, and 7,706 people. The total number of clans in the Yakutsk District is 596 with a population of 131,088 (64,818 men, 66,270 women) showing a surplus of 1,452 women over men, or 0.55 per cent.

In 1927 the Academy of Sciences of Leningrad published, under the editorship of Professor Paul Wittenburg a volume under the title of "*Iakoutie*," meaning the Yakut country. The volume contains 746 pages and includes twenty maps and tables, 78 drawings, nineteen photographs of the country investigated, and sixteen papers by specialists on the history, geo-morphology, geology, soil, fossils, vegetation, fur-hunting, fishing, agriculture, forestry, roads, and other items. In the present publication the writer has utilized the data thus presented.

CLIMATE

The fundamental factors which determine the climate of a country are: its latitude, the relation between land and sea, elevation above sea level and topography, and its situation with reference to adjoining areas of high or low pressure. A glance at a map may give a general idea of the first three factors. We will survey, in detail, the last factor, upon which the other climatic elements depend to a large degree.

Throughout the year, in Yakutsk and Verkhoyansk, we observed only moderate winds or absolute calm. During all seasons, absolute calm is more frequent in the evenings and rare during the day. In Yakutsk May and in Verkhoyansk June is the windiest month. North of Verkhoyansk the velocity of the wind increases with the decrease in altitude. Between Yakutsk and Verkhoyansk the velocity of the wind is eight meters a second and between Verkhoyansk and the Polar Sea ten meters a second.

The following table shows the velocity of wind in Yakutsk at different altitudes:—

| 0 km. | 1.0 m. a second |
|--------|-----------------|
| 0.2 " | 3.2 " " " |
| 0.3 " | 4.4 " " " |
| 0.5 " | 6.5 " " " |
| 0.75 " | 7.0 " " " |
| 1.0 " | 7.8 " " " |
| 1.25 " | 8.4 " " " |
| 1.5 " | 8.0 " " " |
| 2.0 " | 7.8 " " " |
| 2.5 " | 8.2 " " " |
| 3.0 " | 8.2 " " " |
| 4-5 " | 11.7 " " " |

We see, therefore, that up to an altitude of 1.25 kilometers the velocity of winds increases regularly. Between 1.25 and 3 kilometers it remains almost constant.

The prevalent winds in winter, as reported by the meteorological stations of Yakutsk Province, are from the west or southwest, while in Yakutsk northwest and north winds predominate. In summer the predominant winds in Yakutsk Province are in an opposite direction from that of the winter winds and thus the yearly cycle of wind directions has the character of monsoons. In spring and autumn the dominant winds in the Yakut country, especially during March and November, are those of winter; in April the winds are irregular, and in May are characteristic of those prevailing in summer. The October winds approach the winter velocity.

The climate of Yakut Province appears to be excessively continental: during the winter the temperature is extremely low, in summer it is relatively very high. The continentality of climate is most sharply manifested in the so-called "pole of extreme cold" which is a short distance south of Verkhoyansk. There the average temperature for January is -50.1 degrees Centigrade¹ and the average temperature for July is 15.5 degrees Centigrade. Thus the maximum annual range of 65.6 degrees is the greatest observed until now anywhere in the world. Even in the northern borders of the Yakut country, despite the moderating influence of the northern sea, the yearly range of temperature is high.

Speaking of the "pole of extreme cold," we should note that four years ago Professor S. W. Obruchev of Leningrad found much colder places than Verkhoyansk on the Omekon tableland in northeastern Siberia. When Obruchev's party set out on its first exploration they

¹I myself observed between Verkhoyansk and Verkhoyansk Mountain Ridge a temperature of -69. degrees Centigrade.

did not anticipate such extreme cold and did not include alcohol thermometers in their equipment. Consequently, they could not take any observations below -35.4 degrees Centigrade, or -48.9 degrees Fahrenheit below zero, the point at which the mercury thermometers froze. They remained frozen, however, for twelve days in November, when it was ascertained, such low temperatures lasted only two or three days at Verkhoyansk. In October it was observed that the daily temperature averaged about nine degrees Fahrenheit below that of Verkhoyansk. The lowest temperature officially recorded for the latter place is -90 degrees Fahrenheit.

If confirmatory data on the temperature relations on the Omekon plateau are gathered later, it will become apparent that the boundaries of the world's coldest regions extend much farther to the southwest than was previously believed, a fact of considerable importance in meteorological studies. Isotherms which were previously disposed in rings around Verkhoyansk will have to be extended to include the region around the Okhotsk Sea.

Verkhoyansk is roughly five hundred miles distant in a northwesterly direction from the newly reported cold spot and well within the Arctic Circle. The new cold area lies slightly below the Circle in the temperate zone.

In order to characterize the very marked temperature changes during the year in Yakutsk Province we give here the extremes of temperature observed at several points:—

| | Minimum | Maximum | Range |
|-------------------------------------|---------|---------|---------|
| Olekminsk | -60.1 | 35.0 | 95.1 |
| Yakutsk | -64.4 | 37.9 | 102.3 |
| Viliuisk | -59.8 | 35.4 | 95.2 |
| Verkhoyansk | -69.8 | 34.2 | 104.0 |
| Bulun, mouth of Lena | -59.4 | 29.2 | 88.6 |
| Kasachye village, mouth of Yana | -52.6 | 29.0 | 81.6 |
| Russkoye Ustye, mouth of Indighirka | -53.1 | 29.6 | 82.7 |
| Sredne Kolymsk | -58.0 | 34.2 | 92.2 |
| Nishne Kolymsk | -49.6 | 27.6 | 77.2 |

The minimum at Verkhoyansk (-69.8) which was observed in February, 1892, has until now been regarded as the absolute minimum wherever noted throughout the world near the earth's surface (see above Obruchev's data on Omekon). That minimum, together with the absolute maximum of 34.2 , produces the greatest temperature range, 104.0 . The range at Yakutsk (102.3) is only slightly less than that at Verkhoyansk.

The low temperatures of Yakut Province are endurable because of the moderate winds.

The most favorable climatic conditions for vegetation are found in the southwestern part of Olekminsk District of the Province and the most unfavorable at the mouth of the Indighirka River.

The very great frosts associated with a slight snowfall result in the freezing of the soil to a considerable depth, so that it does not thaw out during the summer (see above, p. 77).

The following table gives an idea of the temperature in Yakutsk Province and shows also the average day of the first and last frost.

| Meteorological Station | Number of days with average diurnal temperature | | | Average day | |
|------------------------|---|-----|------|-------------|-------------|
| | <0° | >5° | >10° | last frost | first frost |
| Olekminsk | 204 | 132 | 101 | May-11 | Nov.-21 |
| Yakutsk | 214 | 125 | 95 | May-14 | Nov.-16 |
| Viliuisk | 219 | 122 | 95 | May-16 | Nov.-17 |
| Verkhoyansk | 231 | 108 | 77 | May-24 | Nov.- 2 |
| Sredne Kolymsk | 234 | 100 | 65 | May-29 | Nov.-10 |
| Nishne Kolymsk | 243 | 90 | 53 | | |
| Bulun | 248 | 88 | 49 | | |
| Kasachye | 250 | 83 | 36 | | |
| Russkoye Ustye | 257 | 61 | 19 | | |

The table on page 79 show the average monthly temperature and the annual range.

As the thawing and freezing of rivers are chiefly determined by temperature conditions, we will give the data bearing on these phenomena.

Data on the Freezing and Thawing of Rivers

| | Thawing | Freezing | Days free from ice |
|---------------------------------|--------------|--------------|--------------------|
| Aldan R. at the mouth of Maya | May 17 (12) | Oct. 26 (12) | 162 (11) |
| Amga R. at Amginsk Village | May 16 (7) | Oct. 20 (7) | 150 (5) |
| Indighirka R. at Russkoye Ustye | June 16 (10) | Oct. 4 (9) | 112 (8) |
| Kolyma R. at Rodchevo | May 24 (9) | Oct. 12 (9) | 141 (7) |
| Kolyma R. at Sredne Kolymsk | May 30 (21) | Oct. 11 (18) | 133 (18) |
| Kolyma R. at Nishne Kolymsk | June 6 (15) | Oct. 5 (17) | 121 (14) |
| Lena R. at Beresovskoye | May 6 (10) | Nov. 4 (10) | 173 (9) |
| Lena R. at Olekminsk | May 19 (24) | Nov. 6 (21) | 172 (15) |
| Lena R. at Yakutsk | May 28 (56) | Oct. 30 (50) | 155 (46) |
| Lena R. at Bulun | June 3 (13) | Oct. 20 (14) | 138 (12) |
| Maya R. at Ust-Maisk | May 15 (12) | Oct. 26 (12) | 164 (10) |
| Olekma R. at Troitzkoye | May 17 (11) | Sept. 3 (8) | 169 (8) |
| Viliui R. at Viliuisk | May 22 (19) | Oct. 21 (18) | 152 (15) |
| Viliui R. at Verkhoyansk | May 28 (16) | Oct. 9 (14) | 133 (13) |
| Yana R. at Kasachye | June 3 (6) | Sept. 29 (9) | 120 (5) |

Average Monthly Temperature and Annual Range

| | No. of years observed | January | February | March | April | May | June | July | August | September | October | November | December | Annual Range |
|----------------|--------------------------|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|--------------|
| Olekminsk | 25 | -35.5 | -28.2 | -18.1 | -4.9 | 6.2 | 15.5 | 19.4 | 14.5 | 6.9 | -5.0 | -20.9 | -32.0 | 54.9 |
| Ust-Maiskoye | 17 | -42.0 | -35.2 | -22.0 | -6.4 | 5.2 | 14.5 | 18.3 | 14.3 | 6.5 | -7.0 | -24.1 | -36.9 | 60.3 |
| Yakutsk | 77 | -43.3 | -36.2 | -22.9 | -8.5 | 5.2 | 15.3 | 19.1 | 14.9 | 5.9 | -8.5 | -28.7 | -40.2 | 62.4 |
| Viliuisk | 25 | -38.8 | -30.9 | -20.2 | -7.9 | 4.4 | 15.1 | 18.3 | 14.6 | 5.3 | -8.1 | -25.9 | -37.0 | 57.1 |
| Verkhoyansk | 38 | -50.1 | -44.5 | -31.0 | -12.6 | 2.4 | 13.4 | 15.5 | 10.9 | 2.3 | -14.6 | -36.7 | -46.3 | 65.6 |
| Bulun | 7 | -40.0 | -35.1 | -26.5 | -15.2 | -3.9 | 8.4 | 11.5 | 9.2 | 1.1 | -11.5 | -28.9 | -35.6 | 51.5 |
| Kasachye | 6 | -39.6 | -32.6 | -26.0 | -17.9 | -5.0 | 7.2 | 11.0 | 8.4 | 0.5 | -13.4 | -27.2 | -32.9 | 50.6 |
| Russkoye Ustye | 9 | -38.0 | -36.1 | -30.8 | -22.1 | -6.7 | 4.6 | 10.7 | 5.7 | -0.4 | -12.8 | -25.4 | -33.0 | 48.7 |
| Nishne Kolymsk | 6 | -40.0 | -34.9 | -26.2 | -15.8 | -2.6 | 10.1 | 12.1 | 8.2 | 1.4 | -13.2 | -24.3 | -32.2 | 52.1 |
| Sredne Kolymsk | 15 | -39.9 | -36.0 | -27.1 | -15.0 | -1.0 | 12.6 | 14.0 | 9.7 | 2.5 | -11.2 | -27.9 | -36.7 | 53.9 |
| Rodechevo | 8 | -39.4 | -35.9 | -27.4 | -13.6 | 2.7 | 13.2 | 16.4 | 10.0 | 3.2 | -10.6 | -26.4 | -36.2 | 55.8 |

Figures in parentheses give the period of observation in years.

The number of bright days surpasses the number of murky days in January, February, and March, except in Viliuisk and Bulun, where in January and March cloudy days are observed more often than fair ones. October may be regarded as the cloudiest month.

During the winter frosts in Yakutsk Province misty days occur which are particularly frequent in Yakutsk District.

Precipitation is slight in Yakutsk Province. This may be explained by the topography of the country, its remoteness from the Atlantic Ocean, and by the presence on the northwestern shores of the Pacific of mountain ridges on which most of the moisture brought in the warm season from that ocean precipitates. In the latter half of summer, chiefly in August, precipitation is particularly abundant. There is least precipitation at the end of winter and the beginning of spring, particularly in March.

Snow falls more often in October and November, and rain in June and July. In the northern part of the country snow may occur in any month.

The following table shows the average number of days during the year with snow and rain for the localities named below.

Daily Occurrence of Snow and Rain

| | Snow | Rain |
|----------------|------|------|
| Olekminsk | 76 | 53 |
| Yakutsk | 75 | 50 |
| Bulun | 90 | 39 |
| Sredne Kolymsk | 80 | 38 |

The snowfall in Yakutsk Province is insignificant. The heaviest fall occurs in March and attains its maximum in the Kolyma country and its minimum on the shores of the Polar Sea.

The following table shows the average seasonal snowfall in various localities.

| | | | | |
|----------------|-----------------------------------|---|---|-----------------|
| Bulun | 8 cm. (October) to 21 cm. (April) | | | |
| Kasachye | 6 | " | " | 15 " (February) |
| Nishne Kolymsk | 8 | " | " | 48 " (April) |
| Sredne Kolymsk | 11 | " | " | 47 " (March) |
| Rodchevo | 6 | " | " | 49 " (March) |
| Verkhoyansk | 6 | " | " | 27 " (March) |
| Viliuisk | 5 | " | " | 42 " (March) |
| Yakutsk | 2 | " | " | 37 " (March) |
| Olekminsk | 3 | " | " | 34 " (February) |

Winter on the Lena-Viliui plain lasts from the end of October to the beginning of April. It is distinguished by the unusual constancy and

intensity of the cold, with temperatures which may drop to -65 degrees. Precipitation generally occurs in the first half of winter. The greatest depth of snowfall averages from 30 to 40 cm., and occasionally may be 70 to 80 cm.

Spring is short, begins late (in the middle of April), and may be characterized by sharp variations in temperature. The precipitation during April and May is greater than in the winter months, but is, nevertheless, negligible.

The most characteristic features of the Yakut summer are: continuous sunshine (up to twenty hours daily); very few clouds; a high degree of sultriness in the middle of the day (up to 39 degrees in the shade) and a considerable fall in temperature during the short night; the period without frost lasts from 115 to 120 days; considerable dryness of the air and slight rainfall, about 30 to 40 mm. per month.

Autumn, like the spring, is very short, lasting but two months (September and October); the range in the variation of temperature is very large and the curve of average diurnal temperature falls sharply in October; precipitation is greatly reduced, as compared with that in summer.

The mean annual temperature varies at different points from -6.8 degrees to -10.7 degrees; the mean temperature of January from -35.5 . to -44.8 degrees, of July from 18.3 degrees to 19.4 degrees, that of the three summer months being 16.5 degrees.

The mean annual precipitation for a number of years for various localities ranges from 187 to 271 mm. During the five warm months (May to September) the rainfall is from 130 to 192 mm.

Comparative data show that with respect to the quantity and distribution of precipitation, as well as the temperature of the summer months, the Lena-Viliui plain differs but little from the steppe regions of central Siberia (Chita, Irkutsk, Minusinsk and others) situated much further south. This peculiarity of the climate of the central Yakut country should be particularly borne in mind, as an exaggerated importance has generally been attributed to the severe winter frost. Beyond its purely practical importance for the needs of agriculture, this climatic peculiarity affords a clue to the comprehension of many phenomena in the flora and soil of the country which do not otherwise seem in accord with the usual conception of a territory lying between 62 and 64 degrees north latitude. The duration of the period of warm weather and of the intensity of the summer heat in the region of the Lena-Viliui plain is sufficient to ensure not only the development of a very diversified

natural vegetation, but also to render possible the successful growth of cultivated plants having a fairly long period of vegetation.

As a consequence of the continuous extreme winter cold should be noted the universal prevalence through the Lena-Viliui plain of the permanent frozen earth-layer (*merzlot*). The depth to which the soil thaws out varies with the conditions of exposure of the slope, the thickness of the humus stratum of the soil, the character of the humus, the petrographical composition of the soil and the degree of moisture. Likewise of great importance is the composition and character of the vegetation, the meteorological conditions, and the depth of the snow in winter. In 1912 was observed a maximum thaw to a depth of 225 cm. in dry sandy soils under thin pine growth. Dry humus soils thawed out under short grass meadows and meadow-steppes to the depth of 200 cm. Humus and humus-peat soils of moist meadows thawed to a depth of 120–150 cm. In larch forests the permanently frozen layer was encountered at a depth of 75 to 125 cm., the variation being due either to the absence or presence of a moss covering. The soil of swampy peat bogs was always found to be permanently frozen at a depth of 25 to 30 cm. below the surface.

A permanent frozen earth layer has never been found under water. The ice crust formed on the surface of the water is so poor a conductor of heat that it presents an insurmountable barrier to the penetration of low winter temperatures into the depths of the water.

The presence of a permanently frozen substratum must be regarded as a positive agency in conditioning the climate of the Yakut country. In view of the small amount of summer precipitation, toward the close of summer, the entire layer of thawed out soil is very considerably dried up. Such desiccated soil greedily absorbs all the autumn rains. Subsequent frosts rapidly transform all this water supply into crystals of ice, distributed among the particles of the soil. In spring the mantle of snow thaws while the soil remains completely frozen. Owing to the flat surface of the plain the superficial drainage is insignificant, and all the spring water remains *in situ*, and does not percolate through the deeper layers of the soil. During the gradual thawing out of the soil the snow is partly dissipated by evaporation and partly penetrates the soil by following the receding impervious frozen pan. As the upper strata of soil dry, the water collected underneath rises by means of capillary action, and forms a reliable source of moisture for the normal development of vegetation. When this supply is consumed, it is replaced by the last stores of water, which had frozen the preceding autumn in

the deeper strata of the soil, and which become available as the ice thaws.

Thus, the permanent frozen earth-layer presents a most beneficial means for the conservation and very economical consumption of water, without which the whole extent of the Lena-Viliui plain with its 200 mm. of annual precipitation and its 19 degrees of mean July temperature would be converted into an arid desert, incapable of cultivation and entirely devoid of forest.

ANTHROPOLOGY

Measurements and observations of the Yakut physical type have been made by Middendorff, Maak, Hecker, Mainov, Vitashevsky, Kon, Sipovich, Sieroszewski, and Mrs. Jochelson. Middendorff's measurements of the Yakut were lost when his boat capsized on Taimyr Lake, and consequently, he published only a description of the Yakut type. All the Yakut, he states, are dark skinned and black haired. However, every observer distinguished two distinct types: one closely akin to the European, while the broad, flat face of the other is manifestly Mongoloid.¹ German scientists of the middle of the nineteenth century believed the Turkic race to be distinct from the Mongoloid. In accordance with this concept, Middendorff explained this difference by ascribing it to the Tungus influence, which he regards as purely Mongolian. Middendorff contended that in the posterity of peoples of mixed origin the physical type of either the father or the mother is reproduced. He argued, therefore, that among the Yakut we find either representatives of a pure Turkic, or a genuine Mongoloid type, i.e., Tungus.

R. Maak adhered to the same theory. Referring to the Viliui Yakut, he states:—

“Some faces show a true Mongolian type which may bear testimony of a mixture with Tungus” and further, “Among the Yakut are found Tungusian, i.e., Mongolian types, and, on the other hand, we meet Yakut types, i.e., Turko-Tatarian, among the Tungus.”²

According to Boas,³ two theories of heredity are held: one that the characteristics of the parents are blended in the children; the other, that the laws of heredity act in such a way that for certain traits, the type of either the father or the mother, or that of a more remote ancestor, is reproduced. An inquiry into the value of the cephalic index has shown clearly that in intermarriages within the same race the laws of alternating heredity are fulfilled. Children do not form a blend between their parents, but revert either to one type or the other.

These conclusions of Professor Boas and others are only partially applicable to the Yakut. In the discussion of the Yakut language we shall see that their linguistic position is somewhat contradictory to their somatological situation. While the Yakut language, with all its peculiarities, undoubtedly belongs to the Turkic stock, the question of their origin is

¹Von Middendorff, A. Theodore, *Reise in den äussersten Norden und Osten Sibiriens während der Jahre 1843 und 1844 mit allerhöchster Genehmigung auf Veranstaltung der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg ausgeführt*. St. Petersburg, 1847. 3 vols.

²Maak, R., *The Viliuiak District of Yakutsk Province*. St. Petersburg, 1887. (In Russian).

³Boas, Franz, *Changes in the Bodily Form of Descendants of Immigrants* (Reprinted from the *Reports of the United States Immigration Commission*, New York, 1912), 77.

more complicated. Recent investigators of peoples speaking Turkic dialects have discovered their extensive blood mixture with peoples of different ethnical origin. The war-like Turkic nomads spreading over a vast territory during millenia, came in contact or blended with different racial elements: in Central and Southern Asia with Iranians and Semites; in the west, with Caucasians and Mediterraneans; somewhat to the north of the latter, with Slavs; to the northwest, with Finns; and to the east, with Mongols and Tungus. Through contact with their neighbors some Turkic groups lost all knowledge of their native language, but more often the Turks have assimilated alien groups into the family of Turkic-speaking peoples.

Deniker distinguished Turks from Mongols characterizing them as follows:—

The Turkish race may be thus described: Stature above the average (1 m. 67–1 m. 68); head, hyper-brachycephalic (cephalic index on the living subject, 85 to 87); elongated oval face, non-Mongoloid eyes, but often with the external fold of eyelid; the pilous system moderately developed; broad cheek-bones, thick lips; straight, somewhat prominent nose; tendency to obesity.

The Mongols are thus described:—

Nearly average stature (1 m. 63–64); head, sub-brachycephalic (cephalic index on the living subject, 83); black straight hair, pilous system little developed; the skin of a pale-yellow or brownish hue, prominent cheek-bones, thin straight flattened nose, Mongoloid eyes.¹

However, recent investigators have expressed doubts as to the difference between these two types stating that the Turks and Mongols are branches of one racial stock.

N. L. Hecker, who studied the physical type of the Yakut, measured 417 men and 80 women. The measurements were made in 1894 in Yakutsk City and in the central part of the Yakutsk District. Forty measurements were taken on each individual, in accordance with Broca's and Bogdanov's instructions. Hecker soon left Yakutsk and while living in Irkutsk analyzed his material on 139 Yakut,² but included individuals whose blood relationship with Russians was known. Hecker also measured thirty Russian peasants of Amga Village who were however, three-quarter Yakut and Tungus.

On leaving Siberia for European Russia Hecker turned over his anthropometric material to I. I. Mainov. Mainov excluded from Hecker's Yakut thirty males whose relationship with Russians was

¹Deniker, J., *The Races of Man: An Outline of Anthropology and Ethnography*. London, 1900. 377 and 379.

²Hecker, N. L., Contribution to the Characterization of the Physical Type of the Yakut (*Memoirs, East Siberian Division of the Imperial Russian Geographical Society*, vol. 3, part 1, Irkutsk, 1896, in Russian).

known and added to the pure Yakut about 100 individuals whose measurements Hecker failed to analyze before publishing his paper. In that way Mainov obtained two groups: one, 207 adult Yakut, twenty to sixty years old; and two, thirty individuals of the same age, officially listed as Yakut, but with Russian ancestors on the side of one or the other of their parents. The former group cannot be regarded as pure Yakut, for three hundred years of contact of two peoples, neither of whom had any scruples as to sexual relations, undoubtedly had some influence on their physical type and each succeeding generation of both tribes inevitably became more and more mixed. Of the 237 adult Yakut measured by Hecker, thirty males (12.65 per cent) were able to indicate their Russian ancestry for the two or three preceding generations and eight men (3.37 per cent) a Tungus origin.

In addition to the two male groups, Mainov partly analyzed Hecker's measurements of sixty-two Yakut women sixteen to fifty-five years old and published these in the *Russian Anthropological Journal*.¹

A political exile, F. J. Kon, in connection with the anthropometric measurements cited above, made special observations of pulse rate, respiration, body temperature, and other physiological and biological characters of the Yakut. The results of these observations, supplemented by observations by another political exile, Doctor A. A. Sipovich, were published by Kon in 1899 and, to date, this is the only reliable material on the physiology of the Yakut.²

During the winter of 1901-1902 Mrs. Jochelson measured women of the tribes of Northeastern Siberia, among whom were sixty-six Yakut on whom thirty-nine measurements were taken.

Vitashevsky measured forty-six men, sixteen women, and thirty-nine children (thirty-three boys and six girls). He did not publish these himself, but they were included by Professor A. A. Ivanovsky in the tables in his book, *Anthropological Composition of the Population of Russia* (In Russian).

STATURE

Middendorff, whose measurements, as previously mentioned, were lost, gives 1600-1626 mm. for the stature of Yakut males. Maak gives the stature of Yakut men as 1480-1650 mm. The data on the stature of Yakut men, according to Mainov, Kon, and Vitashevsky, and of Yakut women (including those of Mrs. Jochelson), are summarized in the following table.

¹Mainov, I. I., *The Yakut* (*Russian Anthropological Journal*, vol. 3, no. 4, pp. 35-62, St. Petersburg, 1902). (In Russian).

²Kon, F. J., *Physiological and Biological Data on the Yakut*, Minussinsk, 1899. (In Russian).

STATURE
(In millimeters)

Males

| Number | Minimum | Maximum | Difference | Average | Low (Below 1600) erage (1601-1650) | Average (1651-1700) | High and Upward (1701 and up) | Author |
|---------|---------|---------|------------|---------|------------------------------------|---------------------|-------------------------------|----------------|
| 207 | 1406 | 1776 | 370 | 1624 | 71 | 57 | 30 | Mainov |
| 71 | 1405 | 1797 | 392 | | 21 | 25 | 7 | Kon |
| 46 | 1435 | 1815 | 380 | 1607 | 22 | 10 | 5 | Vitashevsky |
| 324 | 1405 | 1815 | 410 | 1617 | 114 | 92 | 42 | Total |
| Females | | | | | | | | |
| 62 | 1384 | 1633 | 249 | 1512 | 2 | 42 | 8 | Mainov |
| 27 | 1329 | 1580 | 251 | | 4 | 20 | | Kon |
| 16 | 1374 | 1628 | 254 | 1498 | 2 | 10 | 3 | Vitashevsky |
| 105 | 1329 | 1633 | 304 | 1509 | 8 | 72 | 11 | Total |
| 61 | 1370 | 1630 | 260 | 1488 | | | | Mrs. Jochelson |

HEAD LENGTH
(In millimeters)

Males

| Number | Minimum | Maximum | Difference | Average | Small (Below 180) | Average (181-190) | Large (191 and up) | Author |
|---------|---------|---------|------------|---------|-------------------|-------------------|--------------------|----------------|
| 207 | 172 | 208 | 36 | 191 | 11 | 87 | 109 | Mainov |
| 46 | 172 | 207 | 35 | 190 | 6 | 16 | 24 | Vitashevsky |
| 253 | 172 | 208 | 36 | 191 | 17 | 103 | 133 | Total |
| Females | | | | | | | | |
| 62 | 175 | 201 | 26 | 186 | 14 | 37 | 11 | Mainov |
| 16 | 163 | 195 | 32 | 179 | 6 | 9 | 1 | Vitashevsky |
| 78 | 163 | 201 | 38 | 186 | | | | Total |
| 61 | 170 | 200 | 30 | 183 | | | | Mrs. Jochelson |

HEAD LENGTH

While the cephalic index indicates the relation of the length to the width of head, and thus gives some idea of head form, the absolute length of head may give an idea of its size. The greater the length, the larger is the head. Therefore it will be of interest to give data on the length of head before that for the cephalic index.

CEPHALIC INDEX

From the table on the cephalic index we may observe that the mass of Yakut are brachycephals. If we compare the known average cephalic indices of the following Turkic and Mongoloid peoples, we may conclude that authentic Turks are broader headed than Mongols. From this the inference may be drawn that the moderate brachycephaly of the Yakut, may be ascribed to an admixture with non-Turkic, long-headed peoples. This contention may be supported by the fact that some Samoyedic, Yeniseian, Finnic, Iranic, and other tribes having become Turkicized and interbred with Turks have a smaller cephalic index than that of the genuine Turks.

| Mongols | | | Turks | | |
|------------------|-----|-------|----------------|-----|-------|
| | No. | Index | | No. | Index |
| Kalmuck (Kuldja) | 81 | 86.98 | Kara-Kirghiz | 66 | 86.17 |
| Buryat | 816 | 85.87 | Kirghiz-Kaisak | 374 | 87.10 |
| Kalmuck | 285 | 82.57 | Kumyk | 107 | 87.04 |
| Khalka | 36 | 81.88 | Telengit | | 86.14 |
| Torgout | 103 | 84.73 | Uzbeg | 239 | 86.21 |
| | | | Taranchi | 306 | 86.46 |

The Sarts, having a cephalic index of 83.91, are regarded as a mixture of the original Iranian inhabitants of Central Asia, the Tadjiks, with their Turkic conquerors, the Uzbegs. While the Uzbegs have a cephalic index of 86.26, the Tadjiks also have a somewhat greater index (84.85) than the Sarts. This leads us to surmise that there must have been a third component in the Sart physical type.

The Tatars of Crimea have a cephalic index of 84.49; the Osmanli, 84.70; the Tatars of Kazan, 82.08; the Tatars of Caucasus, 83.49. Comparing these data with the measurements of Turks shown above we may infer that the Osmanli, Crimea, Kazan, and Caucasian Tatars are Turks mixed with non-Turkic elements, as is actually the case.

CEPHALIC INDEX

| Number | Minimum | Maximum | Difference | Average | Males | | | Mesocephalic (77.78-80.00) | Brachycephalic (80.01-and up) | Author |
|--------|---------|---------|------------|---------|---------------|--|----|-------------------------------|----------------------------------|--------|
| | | | | | (Below 77.77) | | | | | |
| 207 | 71.72 | 94.79 | 23.07 | 82.66 | 22 | | 26 | 159 | Mainov | |
| 46 | 73.47 | 93.82 | 20.35 | 82.33 | 9 | | 8 | 29 | Vitashevsky | |
| 253 | 71.72 | 94.79 | 23.07 | 82.60 | 31 | | 34 | 188 | Total | |
| | | | | | Females | | | | | |
| 62 | 74.00 | 89.77 | 15.77 | 80.82 | 14 | | 10 | 38 | Mainov | |
| 15 | 76.92 | 80.01 | 12.09 | 82.94 | 2 | | 2 | 11 | Vitashevsky | |
| 77 | 74.00 | 89.77 | | | | | | 49 | Total | |
| 57 | 74.00 | 90.00 | 16.00 | 83.30 | | | | | Mrs. Jochelson | |

LANGUAGE

According to Professor A. N. Samoilovich, the well-known Russian Turcologist,¹ Yakut is an independent subgroup of the northeastern division of the Turkic stock. As compared with other Turkic languages Yakut reveals considerable deviation from the general type of Turkic dialects. Consequently, it may be surmised that the Yakut Turks separated from the other Turkic peoples in very remote times, after which even their language developed quite independently and uninfluenced by other Turkic languages. This resulted in a difference between Yakut and the other Turkic languages so great that the prominent Turcologist, the late academician, W. W. Radloff, contended that the Yakut were not of Turkic origin, but may have become Turkicized within relatively recent times.² The characteristic peculiarities of the Yakut language he states, do not bear witness to their remote separation from other Turks; on the contrary, they show rather that the Yakut are only a Turkicized tribe of non-Turkic origin.³ But Radloff's opinion can hardly be accepted, because the characteristic peculiarities of Yakut reveal many archaic traits. For example, the partial case, or genetive distributive, is formed by suffixes *ta*, *da*, *la*, *na*, and others; for instance, *uta* (from *u*, water) *asal*, bring water, meaning, some water. It corresponds to the Orkhon, *subda*, of the water. The Yakut ending, *tar*, for the conditional mood, corresponds to the suffix *sar* of the Uigur and Orkhon languages. These two suffixes are sufficient to show that the Yakut language has preserved grammatical forms which were observed in other Turkic languages from the seventh to the ninth centuries of our era.

I wish to sketch the Yakut grammar briefly, following mainly the new grammar of S. V. Yastremsky, who kindly sent me a copy of his manuscript, which has been presented to the Russian Academy of Sciences in Leningrad and which will be published in the near future by the Academy.

THE HARMONY OF VOWELS

The harmony of vowels in Yakut resembles the harmony of vowels in Kara-Kirghiz and the Altaian Turkic dialects. It consists in the assimilation of all the vowels of a word to the vowel of the first syllable. Two rules are observed: first, all Yakut words consist of syllables having exclusively laryngeal or palatal vowels; second, a syllable containing a

¹Samoilovich, A. N., *Some Additions to the Classification of Turkic Languages*. Petrograd, 1922 (In Russian). 8, 13.

²Radloff, *ibid.*, 51.

³Radloff, *ibid.*, 52.

long vowel must be followed by another vowelized syllable; or conversely, a short vowelized syllable is followed by another of short vowels. Or, a word contains either syllables of long or short vowels, never the two in combination. The following table shows the series of vowels in the first syllable and the vowels corresponding to them in the syllable following:—

| Harmony of Vowels | |
|-------------------|-----------------|
| First syllable | Second syllable |
| a | a and y |
| e | e and i |
| o | o and u |
| ö | ö and ü |
| y | y and a |
| u | u and a |
| i | i and e |
| ü | ü and e |

For instance, the vowel *a* in *bat* (suffix nominative verbal present negative) is assimilated to the vowel of the root; *ur-bat* from *ur* (to put); *kör-böt* from *kör* (to look); *ongor-bot* from *ongor* (to make). When two or three vowels adjoin, the law of harmony is followed only with reference to the first vowels of the component. Thus, we may have the following table:—

| Harmony of Vowels | |
|-----------------------|-----------------------|
| First syllable | Second syllable |
| a, y, ya, ai, yi, yai | a, y, ya, ai, yi, yai |
| o, oi | o, u, uo, oi, ui, uoi |
| u, uo, ui, uoi | a, u, uo, ai, ui, uoi |
| ö, öi | ö, ü, üö, öi, üi, üöi |
| ü, üö, üi, üöi | e, ü, ei, üi, üö, üöi |

For instance, the plural ending of nouns is *lar*, as *aha-lar*, fathers; but the *a* in *lar* may be assimilated; *oho-lor*, children; *börö-lör*, wolves. There is another example: the suffix *lāx*, having; *aha-lāx*, having a father; *oho-lōx*, having a child; *börö-lōx*, having a wolf; *bī-lēx*, having an elder brother; *tū-lēx*, having hair, down or wool.

There are no prefixes in the Yakut language.

CONSONANTS

There are twenty-one consonants in Yakut, as follows:—

b, g, ʃ, h, d, ɣ, i, j, k, l, l', m, n, ñ, p, r, s, t, x, č.

b and p as in English

g as in English

ʃ as a g with a spirant added

h as in English

d and t as in English
 ɳ is a combination of two English sounds d and j, or j in journey
 j as the English y in year
 j̄ is a strongly nasalized j; the vowels accompanying j are also nasalized, for instance, *ijá*, mother
 k as in English
 l as in English
 l', soft l, as in German
 m and n, as in English
 ñ a nasal g sound, pronounced like ng in among
 r and t as in English
 s as in English. Between two vowels it is pronounced like the German h in Hans.
 For instance, *as*, food, and *asā* (*aha*), to eat.
 x as German ch in Bach
 č as English ch

The consonants, g, ʒ, p, r, ñ, j, j̄, h do not occur at the beginning of a word. The consonants g, n, and p when used instead of k, do not occur at the beginning of a word.

Two or three consonants do not occur at the beginning of a word. All consonants may be used in the middle of a word with the exception of r between two vowels. The use of s has been previously noted.

The consonants g, ʒ, d, č, ɣ, j, h do not occur at the end of a word.

Two consonants do not occur at the end of a word, with the exception of t after r and l and k after ʒ; for instance, *tüört*, four; *ilt*, carry.

ACCENT

Accent is constant in Yakut, i.e., it does not pass over from one syllable to another and is almost exclusively on the last syllable, like the accent in other Turkic languages and in French. Only a few words are accented on the first syllable, for instance, *subu*, this one. One must distinguish the accent of long vowels in the middle of words, in which the real accent falls on the last syllable.

PARTS OF SPEECH

Morphologically the parts of speech in Yakut may be divided into two fundamental groups: the verb and the noun. The most constant and conspicuous morphological distinction between these two groups is seen in the use of the negative particles, *ba*, *pa*, *ma*, and their equivalents. Verbal forms may have these negative suffixes, but these are not added to nouns; for instance, if we take the verbal stems, *bys* and *kel* (to cut and to come), their negative forms will be *byspat* and *kelebüt*; *bysabyn*, I cut; *kelebin*, I come; *bysappyn*, I do not cut; *kelbeppin*, I do not come. The nouns, *bysax*, knife, and *kelī* (*kālī*), a visit, do not have negative

forms. On the other hand, the verbal nouns, *bysalax*, having a knife, may have a negative form.

To enter into a detailed description of Yakut grammar would require too much space. We shall limit ourselves therefore to a brief characterization of the modifications of the Yakut verb, noun, and other parts of speech.

THE VERB

We shall present the modifications of two verbs, a transitive and an intransitive: *bys*, the stem of, to cut, and *kel*, the stem of, to come, giving only the forms for the first person singular and plural, positive and negative, and the second person in the imperative mood.

Imperative Present

Positive Form

bys, cut (thou); *bysyng*, cut (you)
kel, come (thou); *keling* come (you)

Negative Form

bysyma, do not cut (thou); *bysymang*, do not cut (you)
kelime, do not come (thou); *kelimeng*, do not come (you)

Imperative Future¹

Positive Form

bysār, please cut later (thou); *bysāryng*, please cut later (you)
keler, please come later (thou); *kelēring*, please come later (you)

Negative Form

bysymār, please do not cut later (thou); *bysymāring*, please do not cut later (you)
kelimēr, please do not come later (thou); *kelimēring*, please do not come later (you)

Indicative Present

Positive Form

bysabyn, I cut; *bysabyt*, we cut
kelebin, I come; *kelebit*, we come

Negative Form

byspappyn, I do not cut; *byspappyt*, we do not cut
kelbeppin, I do not come; *kelbeppit*, we do not come

Perfect Indicative

Positive Form

bystym, I cut; *bystybyt*, we cut
kellim, I came; *kellibit*, we came

Negative Form

byspatym, I did not cut; *byspatybyt*, we did not cut
kelbetim, I did not come; *kelbetibit*, we did not come

¹Called also by some authors (as for instance, Poppe), optative.

Potential¹

Positive Form

bysājabyt, I am afraid that I may cut off
bysājabyt, we are afraid that we may cut off
kelējebin, I am afraid that I may come
kelējebit, we are afraid that we may come

Negative Form

bysymājabyt, I am afraid that I may not cut off
bysymājabyt, we are afraid that we may not cut off
kelimējebin, I am afraid that I may not come
kelimējebit, we are afraid that we may not come

Conditional

Positive Form

bystarbyn, if I cut off; *bystarbyt*, if we cut off
kellerbin, if I come; *kellerbit*, if we come

Negative Form

byspatarbyn, if I do not cut off
byspatarbyt, if we do not cut off
kelbeterbin, if I do not come
kelbeterbit, if we do not come

Future Perfect

Positive Form

bysjysybyn, I shall be able to cut off
bysjysybyt, we shall be able to cut off
kelīsibin, I shall be able to come
kelīsibit, we shall be able to come

Negative Form

bysymjysybyn, I shall not be able to cut off
bysymjysybyt, we shall not be able to cut off
kelimīsibin, I shall not be able to come
kelimīsibit, we shall not be able to come

The perfect expresses the assurance that the action will be completed.

VERBAL NOUNS AND THE GERUND

Verbal nouns and gerunds are included with the verbs, as purely verbal forms. A verbal noun may serve in the sentence as an active element (subject) or an adjective (modifier). There are many suffixes (*ar*, *byt*, *tag*, and their equivalents) for the formation of verbal nouns, which may express the past tense (*byt*), past perfect (*tag*), future perfect (*tag*), future (*cq*), conditional (*bycca*). All these forms have their corre-

¹May also be called optativus.

sponding negative endings (*bat*, *bataq*, *myg*, and their equivalents), and personal suffixes.

There are five forms of the gerund. The gerund has a slight sense of tense and is only in small measure invested with the power of modification, but it shares with other verbal forms the ability to adopt negative suffixes.

THE NOUN

That section of Yakut grammar dealing with the noun may be divided into three parts: 1, substantive and adjective; 2, pronominal; 3, numeral.

The Yakut substantive and adjective may be surveyed together, as there is no morphological or other difference between them. Besides, one and the same Yakut word may have a substantive as well as an adjective meaning; for instance, *elbex* means opulence and multiplicity and also opulent and numerous.

Nouns may be formed from nominal as well as from verbal stems, for instance: *oho*, child; *oholor*, having a child; *āt*, a name; *ātax*, having a name; *saxa*, a Yakut, *saxalu*, Yakut; *xotu*, the north; *xotugu*, northern; *bys*, to cut; *bysy*, the cutting; *sanā*, to think; *san̄y* ($\bar{y} = a + y$), thinking.

Before giving the suffixes of cases it is necessary to indicate the endings for the plural. They are: *lar*, *tar*, *nar*, and their equivalents, for instance: *aha*, father; *ahalar*, fathers; *oho*, child; *oholor*, children; *at*, horse; *attar*, horses; *olom*, ford, *olomnor*, fords.

The Yakut language has eight cases: the nominative, partial (called in former grammars indefinite accusative), accusative, dative, ablative, instrumental, comitative, comparative. The nominative has no added suffixes, it is the stem; *asa*, father; *ū*, water.

The partial case is formed by the suffixes; *ta*, *da*, *la*, *na*, and their equivalents: *utā ahal*, bring water (meaning, some water).

The accusative is formed by the suffixes: *ny*, *nī*, *nu*, *nū*, when the stem ends in a vowel or a diphthong, and by, *y*, *i*, *u*, *ū*, when the stem ends in a consonant: *asany*, the father, from *asa*; *oyūnu*, from *oyūn*, a shaman.

The dative is formed by the suffixes; *ga*, *ha*, *ka*, *xa*, and their equivalents: *asaga*, from *asa*, father; *muos*, horn, antler; *muoska*, on the horn.

The ablative is formed by the suffix *tan* or its equivalents, when the stem ends in a vowel or diphthong, and by *tan* or its equivalents when

the stem ends in a consonant: *asattan*, from *asa*, father; *muos*, horn, *muostan*, antler.

The instrumental is formed by the suffix, *nan*, or its equivalents when the stem ends in a vowel or a diphthong and by *ynan* or its equivalents when the stem ends in a consonant. *Asanan*, from *asa*, father; *oyūnunan*, from *oyūn*, shaman.

The comitative is formed by the endings *lŷn*, *lān*, or *lāry*, and their equivalents. The sound *l* may be replaced by the sounds *d*, *t*, *b*, or *n*: *oyūn*, shaman; *oyūnnary*, with the shaman; *dohor*, friend; *dohordoru*, with the friend; *uol*, son; *uollary*, with the son.

The comparative is formed by the suffix *tāsar* and its equivalents. Thereby the sound *t* is replaced by *d*, *j*, *n* depending on the final sound of the stem: *ohotohor* (from *oho*, child) in comparison with the child; *ojūnanāsar* (from *ojun*, shaman) in comparison with the shaman.

THE PRONOUN

Pronouns are personal, possessive, demonstrative, interrogative, and indefinite.

1. Personal pronouns:—

min, I; *bisigi*, we
en, thou; *esigi*, you
kini, he; *kiniler*, they

In the Yakut language nouns may be inflected as verbs when verbal endings are suffixed to nouns: for instance, *asa*, father; *ahata*, his father; *ahatabyn*, I am his father.

2. Possessive pronouns. The following are the possessive suffixes:—

| Singular | Plural |
|---|--------------------------------------|
| <i>m</i> or <i>ym</i> (<i>im</i> , <i>um</i>) | <i>byt</i> , <i>pyt</i> , <i>myt</i> |
| <i>ñ</i> or <i>yñ</i> (<i>in</i> , <i>un</i>) | <i>hyt</i> , <i>kyt</i> , <i>gyt</i> |
| <i>ta</i> , <i>te</i> , after vowels and diphthongs; <i>a</i> , <i>e</i> , after consonants | <i>lara</i> , <i>lere</i> |

For instance; *min atym* or *atym*, my horse; *esigi akkyt* or *akkyt*, your horse (the *t* of *at*, horse, is changed into *k* before *k*).

3. Demonstrative pronouns are:—

bu, this, this one
ol, that
subu, namely this
siti, namely this
sol, namely that
sin, the same

4. Interrogative pronouns are:—

kim, who?
tox, what?
tas, how much, how many
xaya, what (also where and how)
töcö, how much, how many

5. Indefinite pronouns are formed from interrogatives by adding to them the particles: *eme*, *ere*, *dahany*, *da*; for instance:—

kim-eme, somebody
tox-eme, something
kim-ere, somebody
tox-ere, something
xaya-ere, *sax-ere*, *töhö-ere*, some
kim-dahany or *kim-da*, who may be or who may not be
töcö-dahany or *töcö-da*, how much there might be

The following examples show how pronouns are inflected:—

min, I
mieze, to me (dative)
mīgitten, from me (ablative)
mīginnen, through me, by me (instrumental)
mīginnän, with me (comitative)
miginneser, in comparison with me
min is not used in the local case
siti, namely this
sitiniaxe (dative)
sitini (accusative)
sitinten (ablative)
sitinne (local)
sitinen (instrumental)
sitinnän (comitative)
sitinner (comparative)

NUMERALS

The cardinal numerals are:—

| | |
|-----------------|-----------------|
| 1, <i>bir</i> | 6, <i>alta</i> |
| 2, <i>ikki</i> | 7, <i>sette</i> |
| 3, <i>üs</i> | 8, <i>ahys</i> |
| 4, <i>tüört</i> | 9, <i>tohus</i> |
| 5, <i>biäs</i> | 10, <i>uon</i> |

The cardinal numbers from eleven to nineteen are formed by the addition to *uon* (10) of the cardinal numbers from one to nine; 11, *uon bir*; 12, *uon ikki*; *uon üs*, etc. The cardinal numbers from twenty to ninety are:—

| | |
|----------------------|---|
| 20, <i>sürbe</i> | 80, <i>ahys uon</i> |
| 30, <i>otut</i> | 90, <i>tohus uon</i> |
| 40, <i>tüört uon</i> | 100, <i>süs</i> |
| 50, <i>biäs uon</i> | 200, <i>ikki süs</i> |
| 60, <i>alta uon</i> | 300, <i>üs süs</i> , etc. |
| 70, <i>sette uon</i> | 1000, <i>tyhycca</i> , Russian <i>tysyaca</i> |

The ordinal numbers are: first, *biris*; second, *ikkis*; third, *üsüs*; fourth, *tördüs*; sixth, *altys*; seventh, *settis*; eighth, *axsys*; ninth, *toxsys*; tenth, *uomus*; eleventh, *uon biris*; twelfth, *uon ikkis*, etc.; fortieth, *tüört onus*; fiftieth, *biäs onus*, etc.

THE ADVERB

First, adverbs are formed from adjectives by adding to them the suffixes: *tyk*, *dyk*, *nyk*, *lyk*, and their equivalents: *cepcekitik*, light, cheap, from *cepceki*, light, cheap; *kusahannyk*, badly, from *kusahan*, bad; *asahastyk*, openly, from *asahas*, open. Second, adverbs are formed from verbs by adding the suffixes: *bycca*, *bicce*, *bucca*, *bücce*, *pycca*, *picce*, *pucca*, *pücce*; *mycca*, *micce*, *mucco*, *mücce*; *yaxca*, *yexce*, *üöxca*, *uoxce*,—for instance: *kericei*, around, from *kerii*, to ride; *segecci*, half open, from *segei*, to half open.

INDECLINABILIA

Under this heading are particles which do not belong to any of the parts of speech and cannot be modified. These are mainly adverbs and interjections, for instance:—

bala, much, many, abundantly
buka, straight, namely, finally, wholly
emiske, suddenly, unexpectedly, quickly
kücca, perfectly, entirely, completely, totally
ör, extensive, long
ötör, quickly, speedily
tuspa, separately
ulam, gradually

Interjections:—

aya, a cry of pain
beye-beye, a threat (be careful)
ökse, exclamation of surprise

To this brief sketch on the Yakut language, I regard it as useful to add an enumeration of the available Yakut grammars, investigations concerning special topics in the Yakut language, and of Yakut dictionaries.

1. Khitrov, D., *A Brief Grammar of the Yakut language*, Moscow, 1858. pp. III+137. Second edition, Kasan, 1905. (In Russian).
2. Böhlingk, Otto von, *Über die Sprache der Jakuten. Grammatik, Text und Wörterbuch. Besonderer Abdruck des dritten Bandes von Dr. A. Th. Middendorff's Reise in dem äussersten Norden und Osten Sibiriens*. St. Petersburg, 1851.
3. Böhlingk, Otto von, *Zur Jakutischen Grammatik*. St. Petersburg, 1859 (*Bulletin of the Russian Academy of Sciences and Mélanges Asiatiques*, vol. III).
4. Yastremsky, S. V., *The Cases-Suffixes in the Yakut Language*, Irkutsk, 1898 (Publications of the East Siberian Division of the Imperial Russian Geographical Society, *Memoirs of the Yakut Expedition*, vol. III, part 2, section 1.)
5. Yastremsky, S. V., *Grammar of the Yakut Language*. Irkutsk, 1890. Published by the East Siberian Division of the Russian Geographical Society (In Russian).
6. Yastremsky, S. V., *A Complete Grammar of the Yakut Language* (in Russian). Ready for the press (Russian Academy of Sciences, Leningrad).
7. Poppe, N. N., *Handbook on the Grammar of the Yakut Language*. Moscow, 1926 (In Russian).
8. Radloff, W. W., *Die Jakutische Sprache in ihrem Verhältnisse zu den Türkensprachen* (*Mémoires de l'Académie des Sciences de St. Pétersbourg*, série 8, vol. 8, no. 7, 1908).
9. Radloff, W. W., *Essay of a Dictionary of Turkic Dialects*. St. Petersburg, 1888-1911, vols. i-iv. Published by the Russian Academy of Sciences.
10. Pekarsky, E. K., *A Brief Russian-Yakut Dictionary*. Yakutsk, 1905, pp. 1-147.
11. Pekarsky, E. K., *A Brief Russian-Yakut Dictionary*. Second, improved edition, Petrograd, 1916, pp. I-XVI+242.
12. Samoilovich, A. N., *Introduction to the Second Edition of Pekarsky's Brief Russian-Yakut Dictionary* (In Russian).
13. Samoilovich, A. N., *Some Additions to the Classification of the Turkic Languages*. Petrograd, 1922 (In Russian).
14. Pekarsky, E. K., *A Dictionary (Yakut-Russian) of the Yakut Language*. Parts 1-12, Leningrad, 1907-1927. It represents a complete and comparative work on the Yakut as one of the dialects of the Turkic languages.

The outstanding work on the Yakut language is that of Böhlingk. Although later authors, particularly Yastremsky, have introduced some additions and corrections to Böhlingk, his work still remains the chief source for the study of the Yakut language. And it is remarkable that Böhlingk, himself a specialist in Indo-Germanic languages, not directly interested in the study of Turkic languages, was never in Yakut Province. In St. Petersburg he met occasionally a Russian official from Yakutsk, named Uvarovsky, who knew Yakut perfectly, as do all the Russians living among the Yakut, and after several months' work with Uvarovsky, he was able to write his monumental work on the Yakut language.

CALENDAR

The ancient Yakut divided the year into lunar months (*yi-syl*). According to Jonov, one year (*tögürüksyl*) in our calendar was regarded as two years: spring and summer were counted as one year and fall and winter as another. Consequently, the time count in old Yakut traditions is much confused. For example, after two years in our count had passed, the Yakut may have said that four years had elapsed. The month was divided into two sections. The first half, until full moon, was called "the new" (*sañata*); the second half, following the full moon, "the old" (*ärgätä*). The days in the first half of the month are enumerated regularly from one to fifteen; in the second half, they are counted in reverse order, from fifteen to one. Thus, there are two fifteenth days in the month, one at the end of the first half and another at the beginning of the second half. Some moments in the phases of the moon are poetically defined; for instance, of the first day of the first half of the month, the Yakut say: *kys jaxtar kylamanbin kurdük kylbayan taxsytä*, it glistened like the eyelash of a young girl; of the twenty-eighth day (the Yakut second day of the second half of the month) they say: *xotun jaxtar ytarhatyn iämähin saha ärgičiyä baranyta*, it ends like the size of a woman's earring.

The month, the Yakut say, has exactly thirty days. When asked how many months there are in a year, they usually answer: twelve. But this is difficult to compromise with their actual method of reckoning, since, were this so the *ot-yya* (hay month) would, during certain years, fall in winter. This is impossible. There are some corrections. It appears that the Yakut have more than twelve month names. They use the names for the twelve months in the following order:—

1. *Balyk yr*, Fish is spawning
2. *Bäs yya*, Month of pine, when its bark easily detaches itself
3. *Ot yya*, Month of hay
4. *Tördünyä*, The fourth
5. *Bäsinyi*, The fifth
6. *Alynyy*, The sixth
7. *Sätinyi*, The seventh
8. *Axsynyy*, The eighth
9. *Toxsuyny*, The ninth
10. *Olunyu*, The tenth
11. *Kulun tutar*, The foal he catches
12. *Mūs ustar*, The ice drifts

The New Year according to our calendar falls about the end of the Yakut eighth month (*axsynyy*); thus, the Yakut *kulun tutar* almost coincides with March. When this was pointed out to them the Yakut

themselves wondered, "How it was that in former times the foals were tied and the mares milked so early." At present mares foal in the twelfth month (*mūs ustar*) and even in the first month (*balyk ȳr*), approximately in April or May. The Yakut begin to milk their mares in the first month (*balyk ȳr*). But to clear up these moot points, it should be noted that the names for two more months are known: *atyjax yya* (the month of pitchfork, i.e., of drying hay) and *balahañña kīrār yi* (the month of changing the summer dwelling for the winter house). The Yakut usually say that the first of these two months is the same as *tördünyü* (the fourth), but they are confused concerning the second month. Mr. V. M. Jonov is of the opinion that both names were inserted between the months *ot yya* and *bäcinyi*, instead of *tördünyü*, when the month names failed to match the corresponding season. Thus we have a thirteen month year. Jonov found that the Yakut agreed with him in this explanation.¹

After becoming Christians the Yakut no longer followed this method of reckoning time, but oriented themselves by the Christian holidays, for instance: *kirisiäniye* (Russian, *krestcheniye*), baptism, January sixth; *Kiristiäp* (Russian, *Kristov*), Easter: *Orosuospa* (Russian *Rozhdestvo*), Christmas; *bulāstar* (Russian, *Vlasii*), or *ynax tañarata* (cow's holiday), February eleventh. Russians regard Saint Vlasii as the protector of domestic cattle and among the Yakut this saint replaced the female deity, Ayisit, of their old mythology. Among the Yakut are experienced individuals who know the number of days between holidays since it is easier to deal with immovable feasts. For movable festivals, they must often consult their priest. On the wall of every Yakut dwelling is a calendar, usually consisting of a small board with holes corresponding to the number of days in the year.

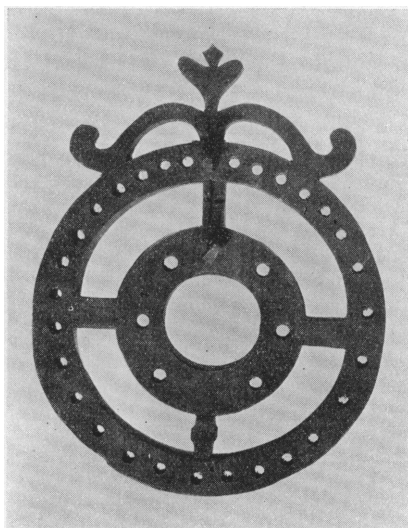


Fig. 1 (70-8818). A Calendar, the Inner Perforations represent the Days of the Week, the Outer Perforations, the Days of the Month.

¹Jonov, V. M., L'Aigle dans les Croyance Yakoutes (*Publications du Musée d'Anthropologie et d'Ethnographie de l'Académie Impériale des Sciences de St.-Petersbourg*, vol. 1, pt. 2, no. XVI, pp. 1-28, St.-Petersbourg, 1913 [In Russian]), 22-23.

The immovable feasts are marked by crosses over the holes. A wooden peg is placed in the hole to indicate the current date, thus showing whether it is an ordinary day or a holiday. Fig. 1 shows a circular calendar; the inner circle has seven perforations, corresponding to the seven days of the week. A peg is shown in the hole for Sunday, over which there is a cross. The outer ring has thirty holes. When the month has thirty-one days, the peg is kept in the last hole for two days. If the month has twenty-nine or twenty-eight days, the peg must be transferred to the first day of the next month. The calendar is called *kün ahar*, it counts the days, or *sibaska* (Russian, *svyatzy*, calendar of saints), or *nädiälä asarar mas*, board which shows the week.

The Yakut began to count the month by weeks only after Russianization. Thus, for week, they use the Russian word *nädiälä* (*nedel'ya*). The days of the week are also known by Russian names:—

Sunday, *tañara künä* (festival day), *boskyrsyanya* (Russian, *voskresenye*), or *nädiälä bįsa* (the dividing day of the week)

Monday, *bädäliänik* (Russian, *ponedel'nik*)

Tuesday, *otuornyuk* or *oltuorunyuk* (Russian, *vtornik*)

Wednesday, *čärädä* (Russian, *sereda*)

Thursday, *cäppiär* (Russian, *chetverg*)

Friday, *pätiñsä* or *bätiñsä* (Russian, *pyatnitsa*)

Saturday, *subätä* (Russian, *subbota*)

RELIGION

PRE-CHRISTIAN BELIEFS¹

The pre-Christian beliefs of the Yakut were closely associated with their mode of life, which was conditioned by the nature of their habitat. The greater part of the Yakut tribe occupied the Amga-Lena elevated plateau. Their occupations and religion were adapted to their environment. The surface of the plateau represents a complicated system of rivulets and brooks separated from each other by vast forested hills and surrounded by mountain ridges. The Yakut distinguish two kinds of land formation: the *uräx* (rivulet), grass covered lowland, and *alas*, somewhat higher plains surrounded by forests interspersed with lakes.

The abundance of grass, animals, and birds in the woods and of fish in the numerous lakes, influenced Yakut economic activity. They were cattle-breeders, hunters, and fishermen. In the early historic period they had four or five times as many horses as horned cattle; at present the number of horned cattle is several times greater than that of horses. The Yakut concept of their spiritual world was based on their material surroundings. Natural phenomena, water and land, animals and plants, and the fate of men are directed by independent beings called "owners." The Yakut pantheon includes the following supernatural beings:—

Ajy, creative beings

Icci, masters

Abasy, eaters, malevolent beings

Yör, man's soul after death

Side by side with them we find the remnants of an earlier conception of the world as being composed of animate beings: *tañara*, sky; *ähä* (grandmother), river; and *uslo*, mountains. We also find *xaya iccäta*, the mountain owner, and the germs of more involved ideas: *Ürüñ Ajy Toyon*, White Creator Lord; *Ulütuyar Ulü Toyon*, Titular Horrible Lord. Not quite clear and somewhat doubtful appears *Arsan Duolai*, the terrible dweller of the underground world. However, only the *Ajy*, *Icci*, *Yör*, and *Abasy* play a conspicuous rôle in Yakut life.

Where do these beings dwell? The Yakut have a clear idea of the chief and cardinal points (*diäki* or *diäkki*) and their intermediates and also of relative heights. The chief cardinal points are: *ilin*, east (literally, the front, front part); *arhä*, west (and at the same time, the back, the back part); *xotu*, north, for which is sometimes substituted the word, *xañas*, the left side; *sohurü*, south, which is occasionally replaced by the

¹This section is based chiefly on V. M. Jonov's article in the *Publications du Musée d'Anthropologie et d'Ethnographie de l'Académie Impériale des Sciences de Petrograd*.

word *uñuo*, the right side. For the definition of relative height the Yakut use the words, *tahys*, to ascend and *kīr*, to descend. The Yakut descends into (*kirār*) and ascends from (*taxsar*) the earth hut; *kūn kirār*, the sun comes down, and *kūn taxsar*, the sun rises.

The dwelling places of supernatural beings are in the upper, middle, and lower worlds. In the upper world dwells the *Ūrūñ Ajy Toyon* and also the terrible *Ulūtuyar Ulū Toyon*. In the lower world lives *Arsan Duolai*. The *Abasy* live in the upper as well as in the lower world.

The *Icci* and the *Ajy* dwell in the middle world,¹ but somewhat lower, not reaching the lower world.

The *Yör* belong to the middle world, whether they dwell on the earth or in the clouds.

The *Ūrūñ Ajy Toyon* (White Creator Lord) dwells, according to one informant, at the zenith and according to others in the northeast.

Ulūtuyar Ulū Toyon lives in the west; *Arsan Duolai* sometimes in the southwest, sometimes in the northwest.

The *Ajy* and *Icci* dwell in the east. The *Abasy* live at all cardinal points, but chiefly in the west.

After settling in the different worlds and cardinal points, all these spirits began to follow their own modes of life and did not enter into relations with each other. Each of them appears as a complete master of his province, his "people," has his own household and often cattle. In the original Yakut mythology, which is uninfluenced by Christian legends, there is no trace of difficulties or struggles between the various classes of supernatural beings.

Very characteristic of the Yakut beliefs is the absence of conceptions of paradise and hell and the lack of any idea of retaliation as we understand it. The Yakut word *ajy* usually translated, sin, means more properly, harm, damage; for instance, *ajy* is used when milk is spoiled by a mouse falling into it, or, when a man's bed is contaminated by a frog.

When a man, willingly or unwillingly, had offended some spirit, violated his rights, or did not fulfill his obligations, he was liable to be punished in some way: by illness, epizooty, or some other calamity. The Yakut is a hunter and fishermen. The *abasy-siäce* (i.e., *abasy*, the eater) also procures food for himself, and this food may be the man and his cattle. The *Ajy* and *Icci* may or may not give the man something. They are quite indifferent to him.

¹There are some exceptions, as, for instance, *ätiñ iccität*, the spirit-owner of the thunder, who lives in the upper world.

When a man is ill or unfortunate, it is necessary for him to seek someone who will find the cause and who will either cure him or release him from his misfortune. Such people are known under various names: *alhacci*, conjuror; *mänäric*, hysterical; *körbüöccü*, prophet; *icän*, sorcerer; *oyün*, shaman; *udahan*, woman-shaman.

Their ideas as to the creation of the world have not been affected by contact with Christianity. In their religious constructions, the Yakut start from what exists and, in their own way, explain the changes in the order of things which existed from the beginning. The very conception of creation, expressed in the word *ai*, is very close to the notion of arrangement or transformation. *Ajysyt*, the goddess of lying-in, is called creative generator, but this means only that she brings the child's soul, is present, and assists while in child-bed.

Although parents are responsible for a child while it is growing, it may itself be punished for disrespect towards the spirits. When he has reached maturity, marries, and establishes his own household, he selects a place to build a house, but it has its owner-spirit from whom it is necessary to obtain permission to proceed. When the house, stall, and shelter for cattle are ready, each of these buildings, as well as the new fireplace, has its own "owners" with whom it is important to enter into good relations. To procure food and clothing for the family it is necessary to hunt in the woods and to fish in the lakes, but forests and waters have their own owners, without whose permission one cannot use the utilities they supervise. That the family may have adequate provision, the cattle must propagate, and for this, corresponding spirits must be propitiated. For the cattle, one needs to store hay, but grass grows in places belonging to particular owners. While traveling, a man passes the possessions of different owners, who must be conciliated with gifts or appropriate prayers. Thus, we see a well organized system in the relations of man to the circle of spirits. However, a closer investigation shows the system to consist of heterogeneous elements. To give some examples:—

A man-shaman is called *oyün* and a woman-shaman, *udahan*. Both play an important rôle in Yakut beliefs. While *oyün* is a Turkic word, *udahan* is adopted from the Mongolian language. Why? Why also is a woman-shaman regarded as more powerful than a man shaman? Why may *oyün* enter into the formation of compound words (for instance, *mas oyün*, a wooden shaman, is called the humming top) while *udahan* may not be so used? Why may *oyün* and not *udahan* be part of words designating inanimate objects?

We have previously seen how carefully the Yakut allotted their spirits to different worlds and cardinal points. The *Abasy*, however, appear to dwell partly in the upper world and partly in the lower one. Further, to those *Abasy* (plur. *Abasytar*) who dwell only in the upper world horses are sacrificed, while to the *Abasy* of the lower world only horned cattle are offered. These spirits have their own households and cattle; but the upper *Abasy* have only horses while the lower ones have only horned cattle. While the *Ajysyt* (the goddess of birth) of horses appears to be a man-spirit, the *Ajysyt* of horned cattle is a woman spirit. This difference alone leads us to believe that we have here a compound of two conceptions of nature, the result of a consolidation of two different cultures. The man's *Ajysyt* is a woman to whom are addressed pleas for children, while prayers for the increase of horses and horned cattle are addressed to the earth's spirit owner. Why were only horses and not horned cattle consecrated to the supreme being, *Ürüñ Ajy Toyon*?

We have previously seen that *udahan* is a Mongol word and that *us* (smith) is Turkic. The Yakut, when comparing the power of black shamans and smiths, regard the latter as more powerful. They make no comparisons with reference to the *udahan's* power, but say that *udahans* are more powerful than men-shamans. The Yakut preserved the names of their former white shamans, but not those of white women-shamans. From this we might infer that white shamanism was not an aboriginal institution, and that black shamanism is a transformation of female shamans after their functions were transferred to men. No tales of white smiths (smiths working with copper and silver) are extant, but accounts of black smiths (iron smiths) relate that they are more powerful than black shamans. This leads us to the belief that the concept of black smiths and women-shamans appeared as ready-made institutions among the Yakut.

We will cite another example. We have previously mentioned the upper and lower *Abasy* spirits, that the former possess horses (and also demand horses as sacrifices) and the latter, horned cattle. At burials the horse of the deceased was killed and buried with its master. Such horses had a special name, *xolynga*. At home a mare was killed in memory of the deceased. It was called *ülä asa*, the worker's food, and was for those who made all the preparations for the burial. Later, a cow was substituted for the mare. When the number of horses decreased, the dead horse was not buried, but eaten at home. Still later, the flesh of a cow was eaten instead of a horse.

From the above it is obvious that the pre-Christian beliefs of the Yakut require further investigation to disentangle the different layers.

SHAMANISM

Shamans (*saxa ababyta*, Yakut priest, and *sābāki* in the Viliuisk District) are divided into two classes, white or creative shamans (*Aj̄j aīyuna*) and black or malevolent beings' shamans (*Abasy oyuna*). The white shaman serves as an intermediary between benevolent creative beings and mankind, whom he does not and cannot harm. He has no special shamanistic dress and does not even possess a drum. He bestows only blessings and asks the White-Lord-Creator to make beneficent gifts. He seldom addresses any other sky-dweller but the White-Lord-Creator: for instance, to cure barrenness he appeals to *Mohan Sylqylax* or some other deity. He does not kill cattle as a sacrifice; he only dedicates them to some sky dweller, after which the animal is not required to perform any work and is cared for and well fed.

The black shaman serves as an intermediary between evil spirits and men. He cures sick people by extracting from them the evil spirits causing the illness. The power and ability of the black shaman varies. His spirit protectors may dwell in the upper, middle, or lower worlds. The most powerful shaman is one who has wolf and bear spirits as his protectors. The black shaman may also harm men against whom he is ill-disposed, casting diseases and miseries on them.

Some information on Yakut shamanism was given in my publications on the Koryak and Yukaghir.¹ Here I shall treat the subject in more detail and add new drawings and additional explanations to the illustrations in these previous publications.

The Shaman's Coat. I succeeded in securing for the Museum three costumes of Yakut shamans. Two were secured in the Yakut District of



Fig. 2 (70-9070). The Back of a Shaman's Ceremonial Coat.

¹Jochelson, Waldemar, *The Koryak (Memoirs, American Museum of Natural History, vol. 10, 1905-1908)*, 21, 30, 36, 48, 53, 56, 57, 59, 61, 91, 92, 101, 102, 113, 119, 120; Jochelson, Waldemar, *The Yukaghir and Yukaghirized Tungus (Memoirs, American Museum of Natural History, vol. 13, 1910-1926)*, 135, 158, 159, 182, 183, 185, 186.

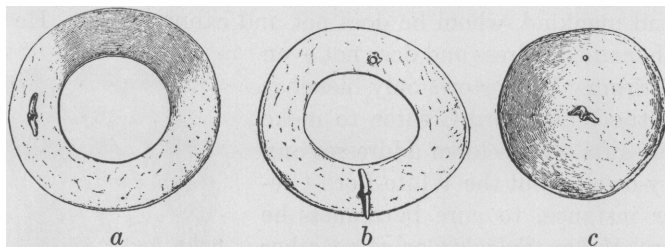


Fig. 3 *a-c* (70-9070). Three Iron Discs attached to the Back of the Shaman's Coat shown in Fig. 2. The discs represent the sun and moon which illuminate the shaman's path to the subterranean world and the ice hole for descending to the lower world.

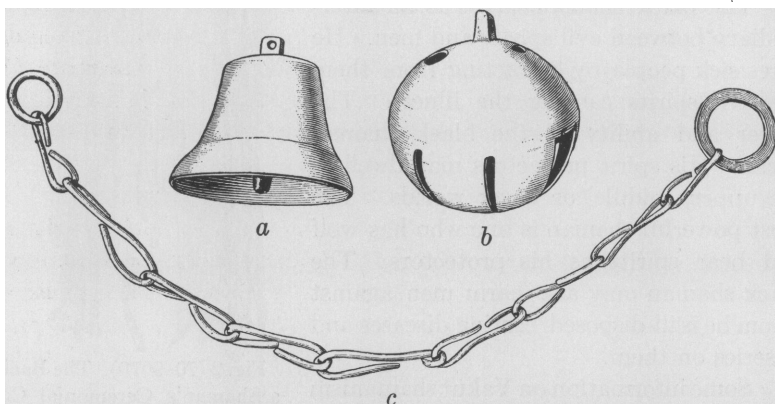


Fig. 4 *a-c* (70-9070). Appendages to the Back of the Shaman's Coat (Fig. 2). *a*, A copper bell; *b*, A copper rattle; *c*, An iron chain which is held by the shaman's assistant to prevent the spirits from carrying him off.

Yakut Province, east of the city of Yakutsk, while one was obtained on the Kolyma River.

The back view of a Yakut shaman's dress, *oyún kirár tañasá* (shaman's rite coat) is shown in Fig. 2. It was bought in the Meginski ulus of the Yakutsk District from the Yakut, Slyeptzov, who explained the significance of its different parts. Although Slyeptzov himself, was not a shaman, his explanations do agree generally with the descriptions of Yakut shaman's costumes furnished by other investigators, primarily Pekarsky and Vasilyev.¹ The coat is made of poorly tanned calf hides. During his performance, the shaman wears it next to his naked body. Above the shoulder blades, across the back, is sewn a band of thick bull hide, to which are attached iron and copper pendants and small rattles. Similar bands are sewn on below it, across the entire back.

Under the upper pendants (*kisan*) on the back of the coat may be seen three iron discs (Fig. 3a-c). The lower disc (Fig. 3c), which has a somewhat spherical concave surface is called, according to Vasilyev, *kün* (sun). When the shaman descends into the dark lower world during his performance, the *kün* must light his path. According to my own notes, this disc is called *yi-küsāñā*, i.e., the moon disc, thus representing the moon. The middle disc (Fig. 3b), with a somewhat irregular hole, is called *kün-küsāñā*, that is, the sun disc. It represents the shaman's sun, which must illuminate his path during his journey to the subterranean world. The upper disc with a hole (Fig. 3a) is called *oibón-küsāñā*. *Oibón*, ice hole, refers to the hole through which the shaman descends to the lower world, the world of evil spirits.

Still another iron disc, called *ān yā doidu*, original earth-mother, is mentioned by Vasilyev. According to the explanation given to him by a shaman the disc represents the earth, which the shaman, when flying on a cloud to the upper worlds, retains as a warrant that he will be returned to the earth. The hole in this disc is also called *oibón*, ice hole; this is somewhat contradictory to the usual meaning of *oibón* as an ice hole through which the shaman descends to the lower world.

All the metallic pendants of the shaman's coat are called *kisan*, although some have special names. Copper bells, small rattles, and bells in the form of bivalvular shells are called *xobo-kisan*. The metallic bivalvular shell has not been figured, but these shells may be seen on the

¹Pekarsky, E. K., *The Coat and Drum of the Yakut Shaman: Materials on the Ethnography of Russia*, Vol. 1 (*Publications of the Ethnographical Division of the Russian Museum of the Emperor Alexander III*, St. Petersburg, 1910, in Russian); Vasilyev, V. M., *Description d'un Costume et d'un Tambourin de Chaman chez des Jakuts (Publications du Musée d'Anthropologie et d'Ethnographie de l'Académie Impériale des Sciences de St.-Petersbourg, vol. 1, part 2, no. 8, pp. 1-47, St.-Petersbourg, 1910, in Russian)*.

upper part of the back under the collar, together with copper bells and rattles.

Three copper bells like that in Fig. 4a are attached to the back of the coat, two on the shoulders, and one under the collar. A copper rattle may be seen in Fig. 4b. Fig. 4c illustrates the iron chain called *tāsin*, that is, bridle, on the back. It is attached to rings which are sewn to the coat under the armpits. The assistant holds the shaman by this chain to prevent the spirits from carrying him off, when his soul departs for the lower regions or towards heaven.

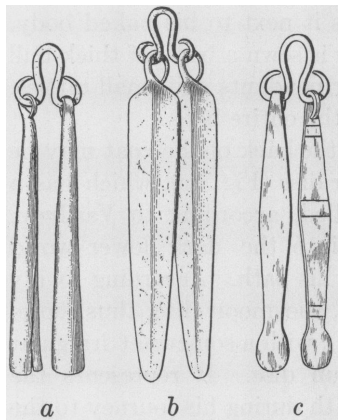


Fig. 5 a-c (70-9070). Appendages representing his Bird Spirit on the Back of a Shaman's Coat (Fig. 2). a, A pair of conical tubular pendants; b, A pair of flat iron plates; c, Flat iron pendants of another type.

A pair of pendants in the shape of conical hollow iron tubes called *coñdoi kīsan* is illustrated in Fig. 5a. Fig. 5b shows another pair of pendants made of flat lancet-like iron plates, called *cillirit-kīsan* and representing the feathers of the bird which appears as the shaman's spirit. A pair of another type of flat iron pendants represents bird feathers (Fig. 5c).

An elongated iron strap (Fig. 6b) attached to the upper part of the sleeve at the back, between the shoulder and elbow, is called *tabītal timira*, that is, upper-arm-iron. It should be noted that *tabītal* means the humerus of birds. The shorter iron strap (Fig. 6a), sewn to the sleeve between the elbow and wrist, is called *xari-timira* (*xari*, human forearm

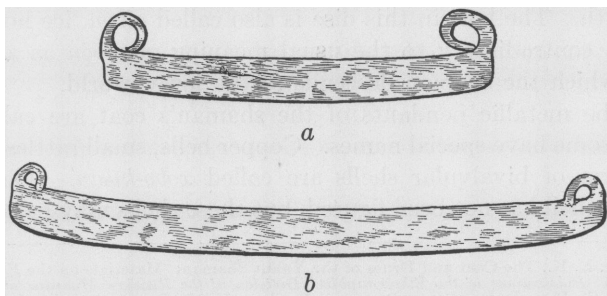


Fig. 6 ab (70-9070). Two Iron Bands attached to the Back of the Sleeves of a Shaman's Coat (Fig. 2). a, Represents the forearm bone; b, Represents the upper arm.

bones). The iron band representing the upper arm is called a bird's humerus, while the representation of the bones of the forearm is called after the corresponding human bones. However, for the plate representing the upper arm, Pekarsky and Vasilyev give another term, *akimal*, which really means human humerus. Vasilyev states that one shaman did not call the lower plate representing the forearm, *tari*, that is, human forearm bones, but *xotohoi*, bird's stroke feathers. If these pendants on the sleeves represent parts of the skeleton of a deceased shaman, it is interesting to note the confusion of bird and human bones. I agree, however, with Vasilyev that no contradiction is involved in such confusion. If we assume that the Yakut shamanistic coat, like that of the Yukaghir, represents a bird's skin, with the help of which the shaman is transformed into a bird, then, at the moment of transformation, he is a bird-man. He is supposed to rise to the upper world by means of his coat, whereas he descends to the lower world through the ice-hole disc previously mentioned. On the other hand, some Yakut gave different interpretations for the iron pendants. These were said to serve as a kind of armor in a contest with hostile shamans and spirits. Slyeptzov, a Yakut, gave me a similar explanation of two iron plates sewn on in place of the shoulder blades and called *sarīn-timira*, that is, shoulder irons. These iron shoulder blades were said to protect the shaman in conflicts with more powerful shamans.

On the sleeves, at the top, are transverse bent iron plates (Fig. 7a-b), one at the bend of the elbow, the other at the edge of the sleeve. These represent the elbow joint and the wrist. Below the elbows, on both sides of the coat, we find seven iron plates running parallel to each other. Four are sewn on at the right side, as may be seen in Fig. 2.

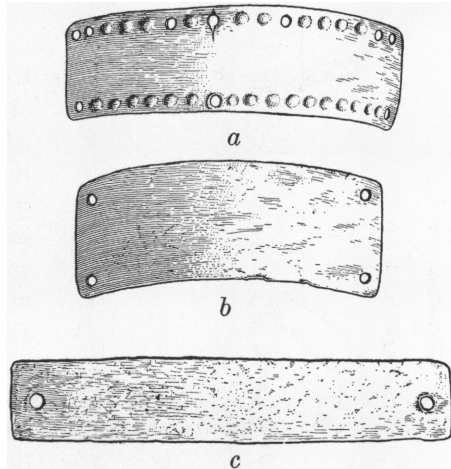


Fig. 7 abc (70-9070). Appendages to the Shaman's Coat (Fig. 2). These are transverse bent iron plates attached at the bend of the elbow and at the edge of the sleeves and represent the elbow joint and the wrist (a, b) and one of the ribs of the shaman's spirit (c).

It appears that the end of one plate has loosened and hangs on one strap. On the left side, are only three plates. All seven plates are called *oyohostimir*, that is, iron ribs. On a Yukaghir shaman's coat we found fourteen ribs (*nugored-amunpe*, that is, side bones),¹ seven on each side. We have

no explanation for the seven ribs represented on the Yakut shaman's coat. On the coat described by Vasilyev and Pekarsky,² only seven ribs were represented.

Fig. 7c represents one of the ribs.

Fig. 8a shows a half-circle called *kältähäi yi* (that is, half moon), made of a bent iron disc, with cracked edges. Such a dim moon illuminated the lower world. A quite massive irregular iron circle (Fig. 8b), somewhat convex on the obverse and concave on the reverse, called *kūsāñä*, represents the shaman's seat (*oyün oloho*), on which he ascends to the upper worlds and descends to the lower worlds when performing shamanistic rites, in accordance with the requirements of the moment. On the convex side are three engraved figures: two birds and a land animal. Some authors translate the word *kūsāñä* as sun (instead of *kün*). The birds are probably ravens and the animal represents a wolf. Attached to the central loop are two iron pendants representing the sun's tail (*kūsāñä kuturuga*); one (a ring and a hook) is called *balyk kysän* (fish-like pendant); the other (an elongated link, *köndöi kysän* (hollowed tube).

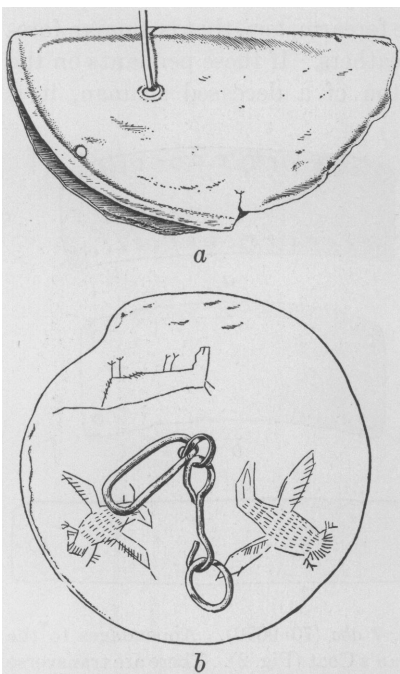


Fig. 8 ab (70-9070). a, A Bent Iron Disc on the Shaman's Coat (Fig. 2) representing the Dim Moon illuminating the Lower World; b, A Representation of the Shaman's Seat on which he ascends to the Upper World and descends to the Lower World.

and a hook) is called *balyk kysän* (fish-like pendant); the other (an elongated link, *köndöi kysän* (hollowed tube).

The pendant illustrated in Fig. 9a is called *bälänjik*, which means, the edge of the sleeve. There is one such iron piece for each sleeve, each representing the shaman's hand with five iron fingers "strong and clinging like iron." Some *bälänjiks* have six fingers to show that the shaman

¹See Jochelson, Yukaghir, 178.

²Pekarsky, and Vasilyev, *ibid.*

is not like an ordinary man, but has much more power. Another pendant (Fig. 9b) is called *xopto*, gull, and represents one of the upper spirits related to the *irär ämägät* (see below).

We turn now to the front of the Yakut shaman's coat (Fig. 10). Two iron pieces (Fig. 11c-d) fastened to the coat under the chin, on the breast piece, represent the clavicles. Unfortunately I do not find their

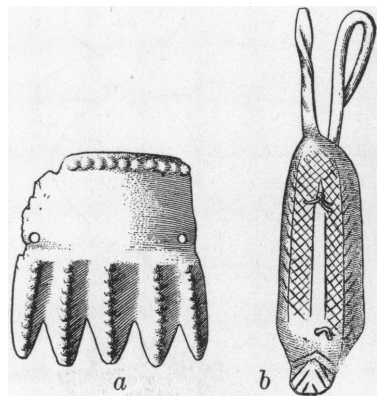


Fig. 9 *ab* (70-9070). Pendants on the Shaman's Coat (Fig. 2). *a*, Represents the shaman's hand with five iron fingers; *b*, Represents a gull, one of the upper spirits.



Fig. 10 (70-9070). The Front of a Shaman's Ceremonial Coat (see Fig. 2).

Yakut name in my records. Fig. 11f shows one of the copper circles on the breast piece of the coat (see Fig. 10). These are called *oyün ömüyün kārātā*, shaman's breast nipples. Fig. 11e is called *jās ämägät*, copper representation of the head of the *yörs*, i.e., of souls of the departed, who fly over the earth and distribute diseases that people may bestow offerings on them and thus be released from pain. In addition to the *jās ämägät*, on some shamans' coats, is another copper man-figure called *külär ämägät*, the laughing spirit, or *irär-ämägät*, the raving spirit. It represents one of the upper evil spirits, which causes madness. A

stork (*kytalyk*) spirit made of an iron plate is represented in Fig. 11b. Fig. 11a represents a grebe (*kushas*) spirit. One of the spirits of the upper world, related to the *irär-ämägät* (raving spirit causing madness) is in the shape of a grebe, stork, or gull (*xopto*). All three bird spirits appear as assistants and executors of the shaman's orders. To extract from the

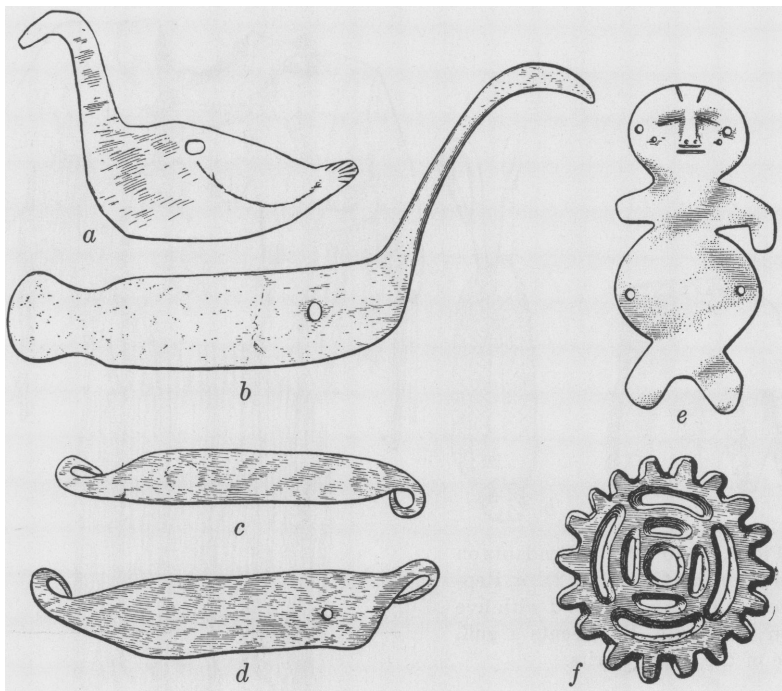


Fig. 11 a-f (70-9070). Ornaments on the Front of the Shaman's Coat shown in Fig. 10. a, Representation of a grebe spirit; b, Representation of a stork spirit; c-d, Two pieces of iron representing the clavicles, fastened to the coat under the chin; e, Copper representation of the head of the souls of the departed; f, One of two copper discs representing the shaman's breast nipples.

body of a patient the spirit causing the illness the Yakut shaman pecks the ailing part with the beak of the iron grebe attached to his ceremonial coat.

There are many other copper or iron figures on the shaman's garb which are not on the costume described; for instance, the *yt* (dog), a flat iron figure representing a dog, is one of the shaman's assistant-spirits, which bites and gnaws the shaman's enemies or their relatives. To be

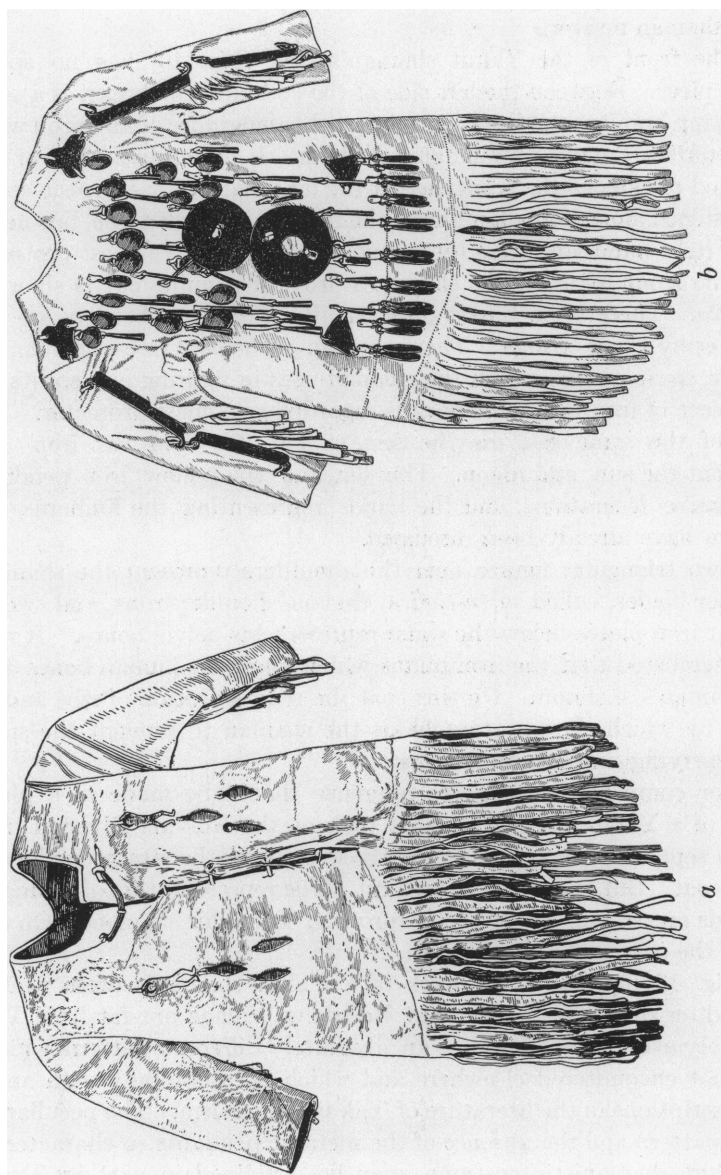


Fig. 12 (70-8861). Front and Back of a Typical Shaman's Coat.

released from the illness caused by the dog spirit it is necessary to appeal to its shaman master.

The front of the Yakut shaman's coat (Fig. 10) has no special breast piece. Between the left side of the coat and the breast is a seam, but, in my opinion, the front piece is not the remainder of an apron which characterizes Tungus or Yukaghir clothing. It is simply a piece of skin attached to eke out the scantiness of the material. However, the coat is not fastened along a median line at the front as it ought to be, but nearer to the right hand, and thus the breast piece looks like a chest protector.

The front of a Yakut shaman's dress of genuine cut is shown in Fig. 12a. There is no breast piece at all. The front borders are held together by tying strings. There are two *jäs ämägät* (see Fig. 11e), and six iron spear points, which the shaman uses in fighting evil spirits. A bent piece of iron below the neck is regarded as a chest protector. The back of the same coat may be seen in Fig. 12b. The two iron discs represent the sun and moon. The flat and the hollow iron pendants, the bivalve decorations, and the bands representing the humerus and forearm have already been discussed.

Two triangular figures near the shoulders represent the shaman's shoulder blades, called *sarīn-timirä*, that is, shoulder-irons, and two triangular iron plates below the waist represent his pelvic bones.¹ It must be remembered that the iron plates which represent human bones form the shaman's skeleton. On this coat the representation of ribs and the bridle by which the assistant holds the shaman to prevent the spirits from carrying him off are missing.

For comparative purposes reference should be made to a photograph of a Yakut shaman which I took on the Kolyma River in 1895.² Here a separate apron may be clearly seen under the straps on the edge of the coat. But the coat is not Yakut. The representation of shamanistic birds on the apron recalls the aprons of Yukaghir shamans. On each side of the coat we find seven ribs.

Fig. 13 represents the back of a Yakut shaman's dress which I secured on the Kolyma River, at Rodchevo Village not far from Verkhnē Kolymsk. This dress has an absolutely different pattern which I have not encountered elsewhere and which does not tally with any of the descriptions in the literature of Yakut shamanism. The peculiarities of the pattern and the absence of the metallic pendants so characteristic of Yakut shamanistic costume, may be explained in part by Tungus

¹Another informant called the triangles below the discs *oyun-sulus*, that is, shaman's stars.

²See Jochelson, Yukaghir, Plate IX, Fig. 1.

influence, and to some extent by the high cost and difficulty of securing iron and copper in the northern sections of Yakut Province. The coat is made of dressed reindeer hide, instead of the calf hide usually employed by the Yakut. The skirt of the coat is not sewn to the upper half, but is buckled to the latter under the fringe at the belt, so that the garment may be lengthened or shortened to fit the shaman. The sleeves are not



Fig. 13

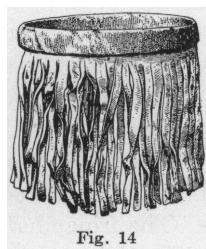


Fig. 14

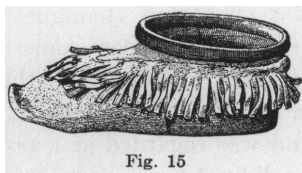


Fig. 15

Fig. 13 (70-8529). Back View of a Shaman's Coat worn by Yakut of the Kolyma River.

Fig. 14 (70-8530). Headdress of the Kolyma Yakut Shaman.

Fig. 15 (70-8531b). Footgear of the Kolyma Yakut Shaman.

in one piece, but consist of longitudinal strips of hide sewn to the shoulders and to the leather rings at the elbow and wrist. This coat is not worn over the naked body, but over the ordinary dress. The pendants, *kīsan*, on the coat consist of tassels strung with beads and of copper tubes with copper discs sewn to their ends. On the back a longitudinal tasseled strip ending in a tail represents the vertebrae, *tonohos*. The tail consists of an iron arrow with iron pendants at the sides, called *jil kīsan*.

The fringe around the coat represents feathers. In front of the coat is visible the apron, which is sewn to the left border as a chest protector and tied to the right with straps. This is not put on separately, as among the Tungus and Yukaghir. In this respect the arrangement of the apron is like that described by Vasilyev and Pekarsky for a Yakut shaman's coat. The dress itself is not decorated with the iron figures characteristic of Yakut shamanistic coats. Instead, tin discs hang from the edge of the inner side of the drum which belongs to the costume. These discs replaced the ice-hole-disc (*oibón-kūsāñá*) and sun-disc (*kün-kūsāñá*), which are usually sewn to the back of the coat. Inside the drum were also tin representations of birds; a stork (*kitalik*), and two varieties of wood-cocks called *čökčöño* and *kurrikači*. Representations of birds were placed on the apron and on those coats of Yakut shamans which had chest protectors.

Fig. 14 represents the headdress, belonging to the shaman's dress, illustrated in Fig. 13. It consists of a wire ring decorated with a reindeer skin fringe. The fringe hat is characteristic of the Yukaghir and Tungus shamans. The Yakut shamans either dispense with a hat altogether, letting their long hair hang loosely over the face, or they wear women's caps. The leather footgear of the shaman is illustrated in Fig. 15.

Not all Yakut shamans wear a special dress during their shamanistic performances, some perform without a special costume and even without a drum. On the Kolyma River, I met such a shaman, named Konon. He was blind. Konon was often called in to cure the sick and was regarded as a powerful shaman. But he told me himself that he did not have the main *ämägät* (shaman's spirit). For a shaman's coat he substituted a woman's coat, *sañiyax*, while instead of a drum, he used as a horse for his journey to the subterranean world a willow (*jalbyr*) with three branches, to which were tied hair from the tail of a white horse.¹ He wore a woman's cap made of ermine skins. Before the shamanistic performance, the assistant bound the shaman's chest and shoulder with a strap, *täsin*, the end of which he held from behind, while the performance was in progress.

The Shaman's Drum. The Yakut shaman's drum (*düñür* or *tüñür*) is covered with a hide from a young bull (Fig. 16). It is oval in shape. Its longitudinal diameter is 53 cm.; the width of the rim, 11 cm. There are twelve protuberances or elevations representing horns, which serve as resonators, but also have a symbolic significance. According to a Yakut shaman from the Rodchevo settlement on the Kolyma River, who had

¹See Jochelson, Yukaghir, Plate X, Fig. 1.

a drum with five protuberances, the two upper ones represent horns, the two middle ones, on the sides represent ears, while the fifth elevation, the lowest one, represents the chin. The fact that the upper protuberances are called horns leads us to suspect Tungus influence. Among the Tungus the drum appears as the shaman's reindeer and among the Yakut as his horse. According to Sieroszevski¹ the number of the protuberances is always odd: seven, nine, eleven, but the drum here illustrated proves

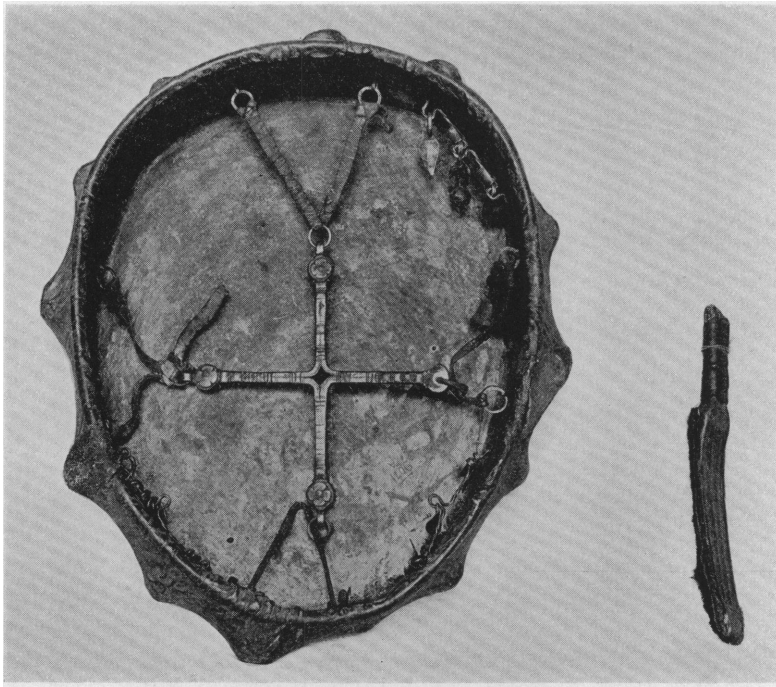


Fig. 16 (70-9071). Shaman's Drum and Drumstick.

that there are exceptions. Inside the drum, near the center, is an iron cross which serves as a handle (*byaryk*). Little bells and other metallic rattles, called *āryk*, are attached inside around the rim. Before being used the drum is heated at the fire, thus tautening the hide and causing the sounds to become clearer and more sonorous. The drumstick is called *bylayax*, its length is 32 to 34 cm. The wider end for beating, is covered with cowhide. The stick is regarded as the shaman's whip when he starts into the world of spirits on his drum-horse.

¹Sieroszevski, *ibid.*, 635.

The Siberian single-headed drum, to which type the Yakut drum belongs, ranks high among primitive musical instruments. The Yakut very seldom use it for amusement. It is primarily an instrument for shamanistic performances.

The drum is very skilfully handled for ritual purposes. It is held with the wider part of the oval upward. The volume of sound depends on the distance from the rim. The farther from the rim the stroke falls, the deeper is the sound.

The Siberian drum has no appliances for tightening its membrane, as is the case with two-headed drums, or with some kinds of tamborines; therefore its sound effects may be distinguished rather by the time and force than by their pitch. This defect may be overcome to some degree by frequent warming of the drum.

In the intonation of the shaman's voice all sound elements, volume, tempo, and pitch may be found. His voice is particularly strong when he strives to inhale from the patient the malevolent beings causing the sickness. Then his voice resembles the cries of a man struggling with a deadly danger.

According to Vitashevsky, the pitch intervals are smaller than those of our musical system. After recording the Yakut songs he tried to reproduce them on a violin, but the Yakut did not recognize them.

A Shamanistic Performance. Vitashevsky gives a vivid description of a performance at which he was present.¹ He came too late to see its initiation, called *oloxxo oloror* (on the seat he is seated) and, he understood, at this point the shaman's voice and the drum beats should be weak and almost listless. When he entered the earth hut the shaman was sitting on a small bank in its eastern corner, so that he had to pass between him and the fireplace. The shaman wore his shamanistic coat and his assistant dried the hut master's drum by the fire. The shaman asked for a tobacco pipe. He inhaled the smoke several times and asked for the drum and stick which were given to him. He rose, walked a few steps, and jerking his shoulders and head up and down, he tried to beat the drum, but rejected it because it was wet. He asked that his own drum be dried. This was done very quickly. Evidently his drum was already dry.

Now began the second or preliminary stage, called *māññiyār* and *sürgüyar*² when the shaman searched for the direction in which to locate

¹Vitashevsky, N. A., Observations of Performances of Yakut Shamans (*Publications du Musée d'Anthropologie et d'Ethnographie de l'Empereur Pierre le Grand Près l'Académie des Sciences de Russie*, vol. 5, pp. 165-196, Petrograd, 1918, in Russian), 177.

²These are called shamanistic objects, as for instance, *jalbyr*, a willow with three branches to which hair from the tail of a white horse is tied. The *jalbyr* is used instead of a drum by some shamans and serves as a horse for their journey to the subterranean world.

the evil spirit that captured the sick man's soul. And, indeed, at times he stopped beating and gazed into the distance. In the beginning of the act the shaman beat the drum slightly and sang in a low voice, but gradually his voice and the drum beatings rose to a climax and the shaman turned his face to the southern window of the hut. The act lasted from fifteen to twenty minutes. During the performance the shaman imitated the neighing of a horse and the cry of some bird.

The third act consisted in inhaling from the sick man the evil spirits causing the illness, and in dispatching them to the south. The shaman had to dispatch four evil spirits. First the shaman sat on the floor behind the fireplace, not far from the entrance, holding in his left hand a *jalbyr* (see above) which he stretched out in the direction of the patient. Gradually, still in a sitting position, he moved toward the sick man, singing louder and shaking his head more and more. At a distance of about a meter from the sick man he rose from the floor and sat on a bank prepared for him. He continued to cry out his incantations, touching the sick man with his *jalbyr*. This movement is called *jalbiyal*. Slowly the shaman rose from the bank and, dropping the *jalbyr*, bent over the sick man. In a powerful voice he commanded his spirits to fulfil his order and to pass from the patient. He pretended to swallow them in order to dispatch them to their dwelling places. To this end, he ran out to the yard and after dispatching the spirits to the "south" he fainted. He was taken up and carried into the hut, quite exhausted. Then the shaman started for the "upper" world and brought back one of the souls, the *kut*, of the sick man which had deserted him, having been frightened off by the evil spirits. The shaman looked around to see whether any evil spirit was left near the patient. Once more he pretended to start for the "upper" world and he fainted when he returned to this world. He was revived by his assistant and the shaman sang his last incantation. This was the final act of the performance.

Vitashevsky was unable to record the text of the performance for the following reasons: it was almost dark in the hut; in spite of his perfect knowledge of the Yakut language many expressions in the performance were incomprehensible to him; the use of a phonograph to record the text would be prohibited by the shaman or otherwise influence the performance. When Vitashevsky invited the shaman to his hut for an interview the latter declined the invitation, saying that a shamanistic performance was too serious a subject for futile curiosity. The shaman, learning of Vitashevsky's presence during his performance, said that it would fail to benefit the sick man. Sieroszevski refers in his

book on the Yakut¹ to a shamanistic incantation, but other students of the Yakut criticized the authenticity of his text. I was more successful with Yukaghir and Tungus shamans. For a remuneration they recited their incantations in my phonograph and also dictated to me in order that I might be able to compare the two versions. In my work on the Yukaghir² I gave the Yukaghir text of a shamanistic performance on the Yassachnaya River. But the shaman himself, whose mother was a Yakut woman, originally recited the text in Yakut, which appeared in the Russian edition of my Yukaghir texts published by the Russian Academy of Sciences in 1900 (p. 118).

¹Sieroszevski, *ibid.*, 641.

²Jochelson, Yukaghir, 201.

THE FAMILY AND KINSHIP

Before entering into the discussion of the Yakut family as a matriarchal or patriarchal organization and its connection with the clan or sib, we wish to present a list of the Yakut relationship terms, by blood and marriage, and their linguistic, historical and sociological significance.

Relationship Terms by Blood and Marriage

Abaha

1. The oldest male person in the clan
2. Elder brother of father (uncle)
3. Father's cousin, older than father
4. Son of the older brother of father's grandfather, when he is older than the father
5. Father's uncle
6. Great-grandfather
7. Brother of great-grandfather (compare *bī*, *tai*, and *ubai*)

Aha

1. Father, parent
2. Elder in age, honorary address
3. Priest
4. Nominated father, *īppitahoe*
5. Godfather, *sūraxtaz* (or *sūrāxtōbit*) *aha*, *aha*, *buolbut*¹

Ahai

1. Husband, spouse, when addressed by the mistress of the house to the head (instead of *ūrim*), or when speaking of him in his absence, and also when addressing an unrelated but honored man.

**Ahas*

A female relative on the father's side, older than the father; called by men and women alike, thus:—

1. Father's older sister (full, half or stepsister)
2. Older female cousin of father
3. Father's elder female second cousin, etc.

Äbā

Grandmother (father's or mother's mother); honored old woman

Ädar

Young man, youth, lad; brave man, courageous fellow; youthfulness

**Äjū*, *ädjū*, *äjū*

1. An older woman (than the woman speaking)
2. An older woman relative on the father's or mother's side (with respect, instead of *ahas*); elder sister, elder cousin (uncle's daughter), aunt (compare *sañas*), a cousin's grandmother, sister of great-grandfather or great-grandmother
3. A middle-aged woman

¹A name originated after the Yakut were baptized.

*Designates classificatory terms.

**Āmāxsin*

1. Old woman
2. Grandmother
3. Wife (compare *yaxtar*, *oyox*, *totun*)

**Ār*

1. Man
2. A brave, hero
3. Adult age
4. Strength, energy, firmness, courage
5. Husband, also bridegroom, with a possessive pronoun: *min ārim*, my husband

Ārdāx

1. Having a husband, a married person: *ārdāx yaxtar*, *ārdāx xotun*, a married woman
2. Strong, energetic, firm, courageous (adj.)

Āsā

Grandfather (on the mother's or father's side)

xos (or *xat*) *āsā*, great-grandfather or great-great-grandfather
torut āsā, forefather; clan

**Baja*

The younger of two wives, See *sañas*

**Balys*

1. Younger, in comparison with somebody else
2. With a possessive pronoun (*baltym*, *baltyn*, *balta*, *baltylapa*), a younger female relative on the father's side, independent of the sex of the person speaking:—
 - a. A younger sister (full, half, or stepsister)
 - b. A cousin (a daughter of a father's brother)
 - c. A second cousin (a daughter of the son of the father's uncle)
 - d. A niece (a brother's daughter)
 - e. A second niece
 - f. A second granddaughter (a daughter of a nephew)
3. *Tai balys*, a younger female relative on the mother's or grandmother's side, independent of the sex of the person addressing:—
 - a. A cousin (mother's niece)
 - b. A second cousin (mother's second niece or grandmother's second female grandchild)
 - c. A second aunt (mother's female cousin or grandmother's niece)
 - d. *Siān balys*, a second niece (second female grandchild, female grandchild of the father's brother of the person speaking)
 - e. *Kūrā balys*
 1. Wife's younger sister (compare *iyā kylyn*)
 2. Wife's younger female cousin
 3. Wife's niece
 4. Wife's second niece (= *siān kūrā balys*)

Bastyñ

The first, anterior, who is in front, the best, elder, chief, first-born (*bastyñ törüäbüt*), first thing

Basyl'yk

Most esteemed, distinguished, eminent, famous, grave, important, master, chief, head leader, elder

Batyr

The brave, fearless, heroic, courageous, daring, strong, gallant one; a title particle to the names of heroes in folklore. See *bärgän*, *böhö*, *böhös*.

Bazsy

The housewife

Bädär üsa

Lynx clan

**Billäx*

Husband of wife's sister (brother-in-law); cohabitants of one woman call each other; wives of one man call each other; rival, competitor

Bis (compare *üs*)

Clan; family; *bis üsa*, tribe, clan, breed, stock, generation, posterity. In the pre-Russian period the Yakut people were divided into *jons* or *bises* and the latter consisted of gentes (*aha üsa*, patriarchal clan)

**Brät, barät, byrät*

Brother, sister (see *siästrä*); the Russian word *brat*, brother. The present Yakut have no terms for brother and sister in general but have the following specified names:—

Ini, younger brother

Bī and *ubai*, elder brother

Balys, younger sister

Ahas and *äjii*, elder sister

In olden times the Yakut called brothers and sisters by a common name *juortu* (see *juortu*)

Bratan

Male cousin, a Russian word

Dyaxtar

Woman; wife (see *oyox*)

**Jon* (plur. *jonnor*)

People, race, community, tribe, crowd, inhabitants of a country; relatives (distant); tribesmen; clansmen:—

Är-jon, men, people

Oho-jon, young people, youths

Kys-jon, girls

Doidu-jons, inhabitants of river valleys

Tya-jons, forest inhabitants

Tas-jons, mountaineers

Opposite of *omuk* (p. 129)

Juortu

In ancient times, brother or sister

Juortular

Brothers and sisters, clansmen, tribesmen

**Iya* (Turk. *āna*, *ānā*)

Female (comp. *tysy*); mother; honorary woman matchmaker, who leads the bride's horse or who leads her into the bridegroom's house:—

Iyā kylyn (comp. *aha-kylyn*):—

- a. Mother-in-law (wife's mother)
- b. Wife's grandmother
- c. Wife's aunt
- d. Wife's elder sister
- e. Wife's elder female cousin
- f. Wife of wife's brother
- g. Wife of wife's cousin
- h. Wife of wife's uncle (*tastyñ iyā kylyn*)

Iyā ūsa, each generation into which the clan is divided (see *aha ūsa*)

Imāxsin = *āmāxsin* (see p. 124)

**Inī*, *inī* (plur. **innātār*)

1. Of a man: the younger one (opposite of *bī*)
2. The father's younger male relative, when the person speaking is a male:—
 - a. A brother
 - b. A male cousin
 - c. A male second cousin
 - d. A nephew
 - e. A second nephew

Innāt-tārim, my younger brothers; *inī-bī*, *ikki* (both) *inī-bī*, or *inī-bī ikki*, (the younger and elder brother) whether full, half, or stepbrothers

**Iris*

Elder female relative

Kādyiār, *Kāyiār*

Clan, relatives, offspring (used along with *ujuor*)

Kārgān, see *Kulut*

**Kisi*

Man, grown-up man; husband

Ār-kisi, grown-up man

Kisi-ārā, everybody

Ādār-kisi, a young man (thirty to thirty-five years old)

Oho-kisi, a youth

Kys oho kisi, a girl

Saxa-kisi, a Yakut

Jaxtar-kisi, a woman

Uol-kisi, a young man (twenty to twenty-five years old); not married, a youth

Kinīl = *Kiyit*

Kinīl-Yaxtar, daughter-in-law

Kinniti, the custom of avoidance. The daughter-in-law must not show herself or uncover her body before the elder male relatives of her husband, particularly her father-in-law

**Kulut*

Slave (male and female); servant (male and female); attendant; subject (of a state); knave (in cards):—

Kulut kys, a girl slave

Kulut jaxtar, a woman slave

Änjä kulut, a slave who attended a young bride when she moved from her father's house into her husband's house

Näktäl kulut, male or female slave for dirty work including the wiping of the hind part; a slave girl who had to undress a noble girl and to crouch on all fours serving as a mounting block when the latter mounts a horse

**Kürüö balys*

1. Wife's younger sister (comp. *ijä kulun*)
2. Wife's younger female cousin
3. Wife's niece
4. Wife's second female cousin

**Kütüö*

- I.
 - a. Elder sister's husband (when the addresser is a woman)
 - b. Elder female cousin's husband (husband of the daughter of father's or mother's brother), no matter who is speaking
 - c. Husband of husband's female cousin, addressed by a man
- II. Uncle
 - a. Husband of father's sister (regardless of the sex of the person speaking)
 - b. Husband of a second aunt (of father's female cousin, of grandfather's brother's daughter), regardless of the sex of the person speaking
 - c. Husband of the mother's younger sister, when the person speaking is a male

Tai-kütüö, the husband of the mother's elder female cousin, when addressed by a female

**Kütüöt*

1. Bridegroom
2. Son-in-law:—
 - a. Daughter's husband independent of the sex of the person speaking
 - b. The husband of a man's elder or younger sister, when the person speaking is a male, and the husband of a younger sister only when the person speaking is a female
 - c. The husband of the father's brother's daughter, when the person speaking is a male, and the husband of the mother's brother's daughter, when addressed by a male older than the son-in-law
 - d. The husband of father's brother's daughter, when addressed by a female older than the son-in-law
 - e. Husband of the husband's elder sister or of his elder female cousin
3. Husband of a brother's daughter (niece), independent of the sex of the person speaking
4. Husband of a son's daughter (a female grandchild), independent of the sex of the person speaking
5. Husband of a son's daughter's daughter (female grandchild), when the person speaking is a male

6. Husband of a husband's niece (of the husband's brother's daughter)
7. Brother of brother's wife
8. *Siän kütüöt*:—
 - a. Husband of an older female cousin (of the father's sister's daughter), regardless of the sex of the person speaking
 - b. Husband of a husband's female cousin (husband of the husband's father's sister's daughter)
 - c. Husband of an elder sister's daughter (niece), when addressed by a male
 - d. Husband of daughter's daughter (of a female grandchild), independent of the sex of the person speaking
 - e. Husband of a female great-grandchild (of the daughter of a daughter's daughter) addressed by a male
 - f. Uncle, husband of a second aunt, of a father's female cousin, of a grandfather's sister's daughter, independent of the sex of the person addressing
 - g. Husband of husband's niece, the daughter of the husband's sister

**Kyl̄yn* = *Kyr̄yn*

Wife's relative

1. Wife's father (father-in-law)
2. Father of wife's father, father of the father-in-law or wife's grandfather (= *äsä kyl̄yn*)
3. Brother of wife's father, brother of father-in-law; wife's uncle
4. Wife's brother, brother-in-law (= *uol kyl̄yn*)
5. Wife's nephew, her brother's son (= *uol kyl̄yn*)
6. Wife's male cousin, son of father-in-law's brother (= *tastyñ kyl̄yn*)
7. Second nephew, the son of the father-in-law's brother's son (= *tastyñ kyl̄yn*)
8. *Äbä kyl̄yn*, wife's grandmother
9. *Äsä kyl̄yn*, wife's grandfather or great-grandfather
10. *Iyā kyl̄yn*, wife's elder female relative
 - a. Mother-in-law (wife's mother)
 - b. Wife's grandmother
 - c. Wife's aunt
 - d. Wife's elder sister
 - e. Wife's elder female cousin (compare *kürä balys*)
 - f. Wife of wife's brother
 - g. Wife of wife's male cousin
 - h. Wife's brother (brother-in-law)
 - i. Wife's male cousin (comp. *tastyñ kyl̄yn*)
 - j. Wife's nephew (her brother's son = *kyl̄yn*)
11. *Aha kyl̄yn*, husband's elder male relative
 - a. Husband's brother
 - b. Husband's male cousin
 - c. Father-in-law's brother
 - d. Father-in-law's brother's son
12. *Ahas kyl̄yn*, husband's elder female relative
 - a. Husband's elder sister

b. Husband's elder female cousin

c. Husband's aunt

13. *Acegygi kylyn* (or *balys kylyn*), husband's younger sister

**Kynnysax*

Wife's elder male relative (used instead of *kylyn* on solemn occasions or as token of particular esteem), for instance: *toyon kynnysahym*, my lord father-in-law

Kyrjahas (= *kyryi* + *ahas*)

Old one (comp. *ägä*); old man (comp. *ohonior*); old woman (comp. *ämärsin*); first-born; clan's head. *Kyrjahas-jon*, old people

**Kys*

Girl; bride

Kys oho, girl-child

Kys jon, girls

Kys jaxtallar, young woman; daughter; husband's younger sister (see *ahas kylyn*, p. 128)

Sian kys, female grandchild (on the mother's side)

Oho kys, female grandchild (on the father's side)

Sütüör kys, a stepdaughter

Ippit kysa, adopted daughter

Nyäjy = *näjy*

Educator, bringer-up, midwife

Noyon

Lad, young man

Oho

Child

Oho-jon, boys

Oho-kisi, boy

Kys-oho, girl

Oholor, children

Äz-oho, boy

Omuk (see *Jon*)

1. People in general, tribe, clan, gens

Xaya omukkuni? To what tribe or clan do you belong?

Tür omuk, Turkic tribe

2. A man belonging to an alien people, tribe, or clan

Omuk-kisi, an alien man, a man of an alien tribe or of another clan

3. Tungus, Lamut

Baikhäl omuk, seacoast Tungus

Tas omuk, mountain Tungus or Lamut

4. Yukaghir wandering tribes

5. The Ostyak and Samoyed

Oyox

Wife, spouse (see *jaxtar*, *xotun*, *ämärsin*). *Oyox* is used only in some localities

**Sañas*

The wife of an older relative on the father's side regardless of the sex of the person speaking. The older of two wives. The younger one is called *baja*

1. Brother's wife
2. Cousin's wife
3. Uncle's wife
4. Wife of a second grandfather

Tāi-saņas, the wife of an older relative on the mother's side

1. A cousin's wife
2. Uncle's wife
3. Second uncle's wife
4. A second grandfather's wife = *kyrjahos saņas*

**Siān*

1. Man or woman born of a mixed marriage: Yakut-Russian, Yakut-Tu ngus and so on
2. Posterity in the female line as opposed to the offspring in the male line:—
 - a. Daughter's children
 - b. Daughter's grandchildren
 - c. Niece's children
 - d. Female cousin's children
 - e. Children of grandfather's sister
3. Relatives by marriage:—
 - a. Children of husband's sister (comp. *kys*)
 - b. Husband's niece's children
 - c. Husband's aunt's children
 - d. Husband's female cousin's son
4. *Xoe siān*, grandchild (male or female)
5. *Siāncār*

- a. Posterity in the female direct and side line:—
 - i. Daughter's grandchild
 - ii. Daughter's great-grandchild
 - iii. Sister's grandchild
 - iv. Father's sister's grandchild
 - v. Grandfather's sister's children
- b. Relatives by marriage
 - i. Husband's sister's grandchildren
 - ii. Son of husband's female cousin
 - iii. Father's sister's children

**Sūtüör*

Female friend or companion; wives of one man call each other thus; rival (man or woman); stepson

Sūtüör aha, stepfather

Sūtüör-ijä, stepmother

Sūtüör kys, stepdaughter

Sūtüör oyož, second wife (of two)

**Sygan*

A relative (male or female) by marriage with an alien clan

Sygancaz = *Sygan*

**Toyon*

Chief, elder, master (of house), honorary man; husband's father

Äsä-toyon, husband's grandfather

Uol-toyon, husband's elder brother

Törüöt üs

The main, original clan; genealogical table; origins

Törüt

Clan; forefather; origin; beginning; root; base

Tüñür, Tügür, Tümür

Relative by marriage; matchmaker; groom's man; bride's maid

**Ubai*

Elder male by age; elder male in the family or clan (see *bī*)

Uol

Boy, youth; son (see *oho*)

Uolan

See *uol*; *uolan-jon*, young men

**Urū*

Relative by marriage; relative in general

Following this presentation of the complete list of Yakut terms of relationship, two points remain to be cleared up: first, the function of the Yakut *Je-usa* (mother's clan) as opposed to the *Aga-usa* (father's clan or gens); and second, the inference to be drawn from Yakut classificatory and descriptive terms of relationship.

The Yakut mother's clan is not connected with a family organization in which the women have the chief place in the government, or with the mythical race of women of Asia Minor called Amazons. The Yakut man is the real ruler and head of certain social groups. The origin of the term, *Je-usa*, may be explained, as Sieroszevski assumed, by the former existence of polygamy among the Yakut. The children of each wife—and there is no question that the children knew their own mothers—formed a *Je-usa*, but all these groups of mothers with their children were considered to be divisions of the *Aga-usa*, or the father's gens.

Some writers, like Professor Kroeber, have objected to the usual distinctions between classificatory and descriptive relationship systems, but the study of the Yakut terms of relationship leads us to discriminate between classificatory and descriptive terms. Those terms which apply to lineal and collateral relations, consanguinity and affinity in one group, are classificatory terms; on the other hand, terms designating certain particular cases of consanguinity and affinity are descriptive. Classificatory terms are marked in the list by an asterisk.

In connection with the statement that the Yakut mother's clan is an integral part of the father's clan, we should like to present some data bearing on earlier matriarchal relations. The Yakut regard them-

selves as the offspring of the mythical Omogoi-bai, in spite of the fact that they originate from his daughter, who married a Tatar or a Buryat.

To the end of the eighteenth century, there remained in vogue among the Yakut the custom of concession of wives. Formerly the bridegroom lived permanently in the house of his father-in-law, but in more recent times he lived there only for a definite period.

The *kalym*, or bride-price, replaced the system of marriage by capture. The origin of the *kalym* may be seen in the simulated enmity of the mother-in-law and the son-in-law.

A matriarchal system presupposes looseness of sex relations. The chastity of girls in rich families is not a question of morality but of *kalym*. The *kalym* for a widow or a girl who has had children is low. In the case of a widow, the belief in the right of the deceased husband may limit the number of wooers. A girl with a child, however, is sometimes preferred as a guaranty against barrenness which the Yakut dislike. In Yakut tales, the guest does not ask, "Where shall I sleep?", but, "Where do you put your guests?" and then they are shown to the beds of the girls. This is a form of hospitable heterism.

As the ancient Yakut had no written records, we know very little of their former life and particularly of their internal organization. Our information may be summarized in the following.

A household or yard was called *yal*; a group of individuals, who formed a family, as well as each member of the group, was called *körgön*. The family consisted of blood relatives as well as of relatives by marriage: sons-in-law, wives (polygamy), adopted children, laborers, and slaves of both sexes. When the Yakut polygamist had several wives, he had several *yals*.

At the head of the family was the *aga*, meaning primarily "elder in age" and then "father." All the people of the household were regarded as and called by him "my children," "my sons or my daughters." Among these were included not only his own children, but also all relatives by blood and marriage, by adoption, by purchase (slaves), and any other dependents, as war captives. The *aga* continued to rule as long as he preserved his physical and mental abilities. According to a Yakut tradition, aged parents and also sick and crippled people, unable to work, were doomed to die and were even buried alive after three days of abundant entertainment.

Trostchansky, who lived as a political exile among the Yakut for about twenty years, characterizes them as egoistical utilitarians.¹ He

¹Trostchansky, V. F., Notes on the Yakut of the Yakutsk District (*Memoirs, Imperial Society for Archaeology, History, and Ethnography*, vol. 27, parts 2-4, Kasan, 1911, in Russian), 97.

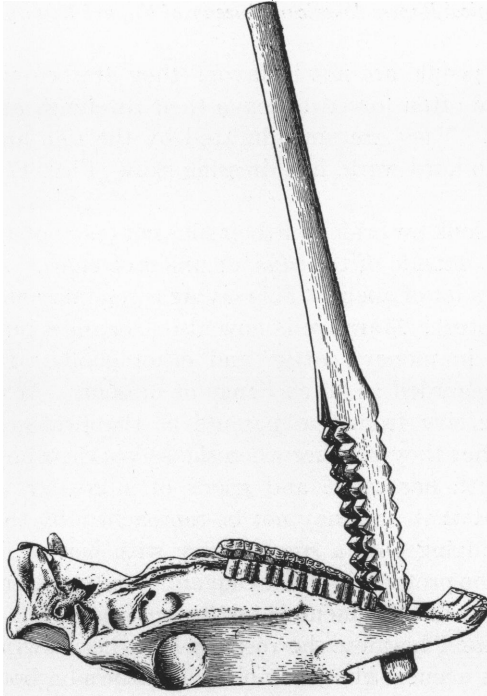


Fig. 17 (70-8853ab). A Skin Dressing Tool used to soften Skins. See Fig. 18 for the method of use.

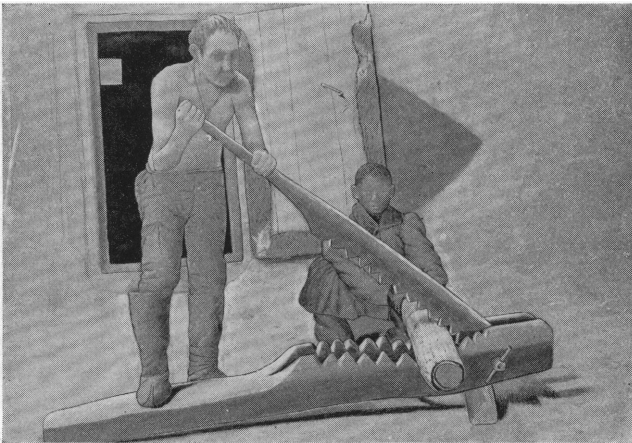


Fig. 18. Skin Dressing in Front of the Hut of an Impoverished Yakut.

says that aged people are not in favor; they are beaten by their own children and are often forced to leave their dwellings and to beg from house to house. They are not admitted by the rich and poor people force them to do hard work, like dressing skins (Figs. 17, 18), for every bit of food.

The Yakut look for brides for their sons not only outside of their clans (*us, nasleg*), but outside of the *ulus*, or union of clans. A girl, say the Yakut, is really a lot of aliens. This saying is reminiscent of the old time marriage by capture. Marriage is now also exogamic, but *kalym* (bride-price) is given in money, cattle, and other goods. Practically, the *kalym* may be regarded as an exchange of presents. What the parents of the bride receive from the parents of the bridegroom is almost equivalent to what they give her when she leaves their house. Often the bride carries with her cattle and goods of a greater value than her parents received that she may not be reproached by the bridegroom's relatives for bringing only a small dowry with her. The young bride remains under the protection of her clan and family. Many common law customs regulate disagreements and dissensions: If a young woman leaves her husband because she dislikes him, her dowry remains with him; but, if she accuses him of cruelties, relatives on both sides decide the matter. The Yakut do not like to appeal to the Russian courts.

We have previously mentioned the exogamic character of the Yakut marriages, but some other tendencies have been observed in the northern districts of Yakut Province. The few rich families endeavor to keep their horses, cattle, and grazing places within a certain group of families through marriage of close relatives, insofar as this is permitted by the Russian church. By special permission of a bishop, even cousins are permitted to marry. In one case, known to the author, a man lived with his niece, a marital relation forbidden by the Church, though his neighbors avoided mentioning this irregularity to strangers.

The old Yakut clan was governed by family representatives or a family council in which women very often played a conspicuous rôle. After the Russian conquest of Yakut Province, clan ties became less important and the family head more despotic.

The Yakut were warlike and blood vengeance between clans occurred very often, but reconciliation was often sought through payment of a ransom or by giving a girl in marriage, the best way to end hostilities. It was more difficult to compound assassinations within the clan. To kill the murderer would deprive the clan of another member and the punishment had to take the form of ransom, service, or public disapproval.

MATERIAL CULTURE

DWELLINGS

The sides of the Yakut winter dwelling are occupied by wide wooden banks called *oron* (bank) or *olox* (seat). The northeastern corner (Fig. 19), where a door or an uncovered entrance leads to the cattle stalls and the other small corners, has no banks. The names of the banks and their uses are of considerable ethnographical interest. The entrance to the Yakut dwelling always faces east, the seat of benevolent deities. The bank directly to the left of the entrance has no name and is designed for household objects. Sometimes there is no bank at all at this point. On the plan illustrated (Fig. 19) Nos. 1 and 3 are called the right side of the dwelling, i.e., facing outward to the entrance. No. 1 is called *atax oron* (the first bank) or *āna suol oron* (the bank by the door). Its ancient name was *kōñül olox* (the free seat). This seat is for unimportant, impoverished visitors, and serves as a sleeping place for male laborers. In the Kolyma District, during the marriage feast, the bridegroom sits in this place with his back to the banqueting guests.

No. 2 is called *ortuku uña oron* (the right middle bank), *tünnüxtax oron* (bank near the window), or *orto olox* (the middle seat). The last is the most ancient name. The designation for No. 2 is the same as for No. 1. When a son-in-law visits his bride in the house of her parents before the *kalym* (bride-price) has been paid, No. 2 is assigned to the couple as a sleeping place.

No. 3 is called *billirik*. It is regarded as the best, most comfortable, and warmest seat and sleeping place in the Yakut hut. Usually there is no window over this bank, although in the sketch a window is shown. The most honored guests or the shaman invited for a performance is seated there. During a wedding the parents of the bridegroom, relatives, and the matchmakers, and other members of the wedding party have this place. The *billirik* is also known under the following names: *tüs-pediýer olox*, *ulütuyar olox*, or *tüs olox*.

No. 4 is called *bastyñ uña oron* (the right first bank). According to Sieroszevski this position carries less honor than the *billirik*; it is less

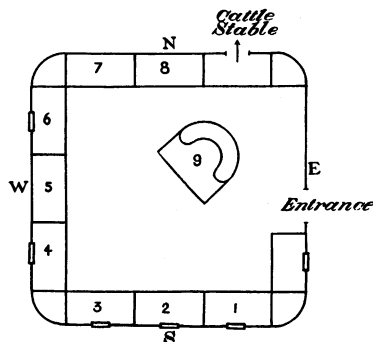


Fig. 19. Groundplan of a Yakut Hut, showing the Position of the Banks, Windows, and Entrance.



Fig. 20 (70-8662). Brass Representation of Saints, forming Part of the Furnishings of a Yakut Hut.

comfortable, has a window above it, and is within the range of the cold wind from the open entrance door. During a wedding it is occupied by the owners of the house and their nearest relatives; here also are seated honored guests when the *billirik* is already occupied. The *billirik* and the *bastyñ uña oron* form the "venerable corner." There a table stands, over which, under the ceiling, is a small carved and decorated shelf, called *holloruk*, on which are icons and images of saints painted on boards, to which wax candles, decorated with ribbons, beads, and other pendants, are affixed; or an embellished oil lamp is hung in front of the images. There on Sundays and holidays, headed by the hosts, the inmates and guests gather for prayer, so that this corner is transformed into a kind of chapel. During the prayers, the people stand in front or at the rear of the group, in accordance with their age and position in the community. They bow, cross themselves, hold lighted candles, and burn incense. In Fig. 20 may be seen a brass picture of saints fastened to a board surmounted by crosses. The ancient name of the *bastyñ uña oron* was *köhül olox*.

No. 5, the bank opposite the fireplace (No. 9) called *kätähärin*, is the family sleeping place above which there is no window.

No. 6, *känčiärä olox*, is also called *xañas billirik* (left *billirik*) where adult girls (daughters and relatives) sit, work, and sleep. *Känčiära-jon* means young people in general.

No. 7 is called *xañas oron*. It serves as a sleeping place for female laborers or servants and grown children of both sexes. On this bank, hidden by a curtain, the bride sits during the three days' wedding festivities.

No. 8 is called *isit oron* (bank for cooking and other household vessels, from *isit*, kitchen ware).

Over Nos. 7 and 8 is usually a shelf called *dolbūr*.

All the banks beyond the *kätähärin* are regarded as belonging to the women of the dwelling. When facing the entrance, inside, the male half of the house is to the right and the female half to the left. The *kätähärin* (No. 5) or the family sleeping place and all the banks of the female half are supplied with calico (in former times, leather) curtains which are let down during the night.

From the Russians the Yakut adopted the use of tables and tabourets. Illustrations of models of such furniture may be seen in Fig. 21. The table is usually much lower than our tables and the tabouret is as high as the table. The table with refreshments on it is placed before guests sitting on the banks (*oron*) described above. The Yakut name for

a table, *ostuol*, shows its origin from the Russian word for table, *stol*. In ancient times, the Yakut used tables without legs, or boards, which were called *sandaly*. These were placed on the floor before the visitors or on the bank between them.

The fireplace (*osox*, or *kömülüök*, from the Russian, *kamelek*, No. 9) is situated in the northeastern corner of the dwelling; its front part faces the dividing line between the male and female halves of the house.

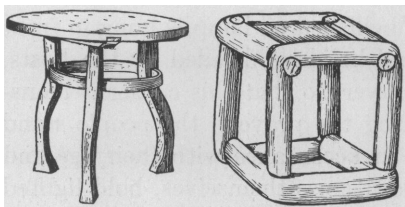


Fig. 21 (70-9284, 9281). Model of a Table and a Chair.

The hearth, quadratic in form, consists of a wooden trough made of logs or heavy boards, and lined with beaten clay. The length of the sides of the trough is about 5 feet and the height about 11 inches. The chimney, open in front and sloping backward somewhat, consists of poles, tied with twigs at the top, over the roof, and coated in-

side with clay. The mistress of the house is the chief guardian of the hearth which is the family protector. She alone is privileged to pass in front of it; all the other women must go around back of it. If the master of the house or an honorary guest stands in front of the hearth, the mistress too must pass behind it. During her menstrual period a woman is not allowed to touch the fire or to approach the hearth. A woman lying-in and her midwife may not enter the part of the house lighted by the flame of the hearth. A bride entering the house of her husband must throw a few little sticks into the fire and make a libation of melted butter. After these, she becomes a member of the family. It seems that the throwing of little sticks is symbolic of making fire, the task of a woman member of the family. A photograph of the Yakut hearth (Fig. 52) may be seen in the chapter on pottery.

Fig. 22 shows the exterior of the Yakut earth hut. When built separately from the earth hut for cattle, it has the form of a truncated pyramid, but in the illustration the two structures are combined. The cattle stable has an exit door to the yard, but there is also an inside door leading from the dwelling to the cattle stable (Fig. 19). The Russians call the Yakut earth hut, *yourta*, a name given to all types of native dwellings whether tents or permanent huts. The Yakut themselves call their earth hut, *balahan*, a name used also by the Mongoloid peoples of Siberia. There is a winter earth hut (*kystyk balahan*) and a summer earth hut (*sayylyk balahan*) which do not differ. The summer hut is

erected in places where the Yakut make and prepare hay for the winter, when it is transported on sledges to the winter quarters as needed. Pekarsky says that the Buryat and Mongol also use the word *balahan* for earth huts,¹ but the noted linguist, Böhtlingk, finds that *balahan* is not a Yakut but a Persian word introduced to the Yakut by Russians.² A genuine Yakut word for dwelling in general is *djiyā* or *jiyā*; *buordjiyā*, earth hut; *tuos djiā* (= *urasa*), birchbark tent; *sakha djiātā* (= *buor djiyā*), Yakut dwelling; *nuča djiātā* (Russian house), block or log house.



Fig. 22. Exterior of a Yakut Hut in Winter.

The Yakut earth hut is built as follows: four posts, driven into the ground, are joined by four cross-beams, on which rest the upper ends of poles or roughly hewn boards, set up in a slanting position. The cross-beams are covered with branches, poles, or boards, over which bark is spread, thus forming the ceiling and roof. Then the roof and sloping walls are covered with mud, earth, and clay, mixed with cow dung. In winter a layer of snow is added. The floor, generally of beaten mud, is sunk about two feet below the ground; rich people, however, have it level with the ground and covered with boards. The windows, mentioned before, forming small square openings, admit scant light, and are covered by sheets of ice in winter, and, in summer, with fish membrane, mica, oiled paper, or dense horsehair nets, which ventilate the dwelling

¹Pekarsky, *Dictionary of the Yakut Language*, *op. cit.*, 346.

²Böhtlingk, Otto von, *Über die Sprache der Jakuten*. Grammatik, Text und Wörterbuch. (Besonderer Abdruck des dritten Bandes von Dr. A. T. Middendorff's Reise in dem dussersten Norden und Osten Sibiriens, St. Petersburg, 1851), 131.

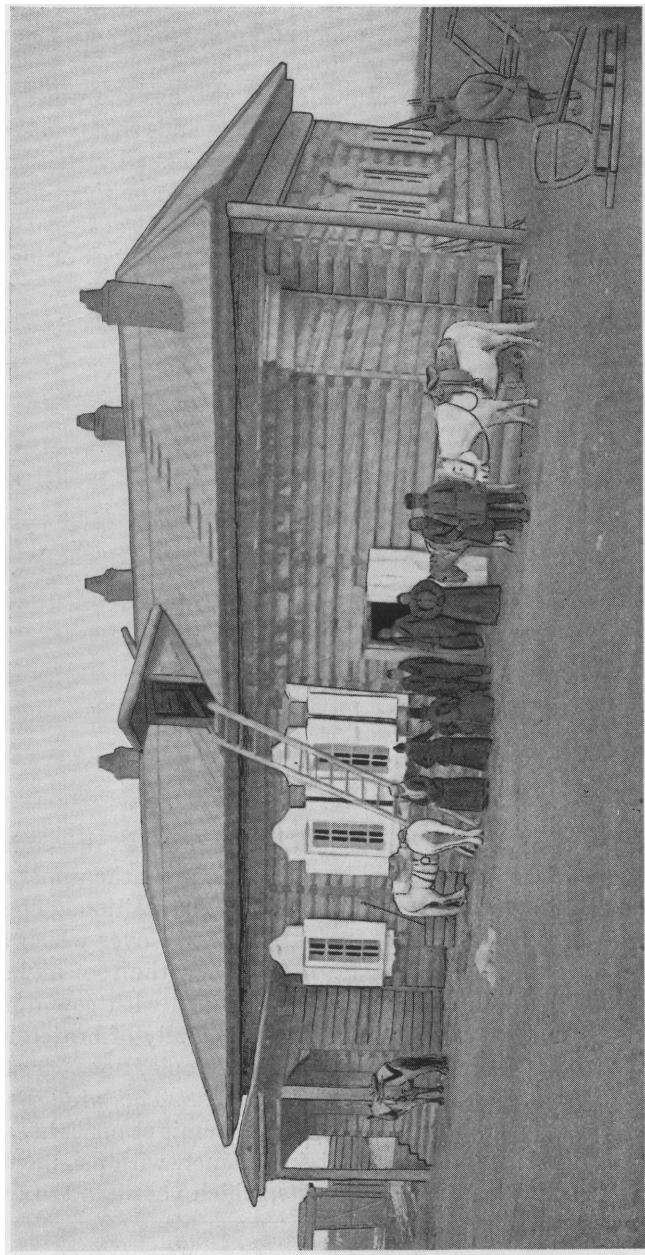


Fig. 23. Log House of the Russian Type, belonging to a Rich Yakut Elder on the Lena River not far from Yakutsk.



Fig. 24. Large Conical Birchbark Tent, an Ancient Type of Yakut Summer Dwelling.

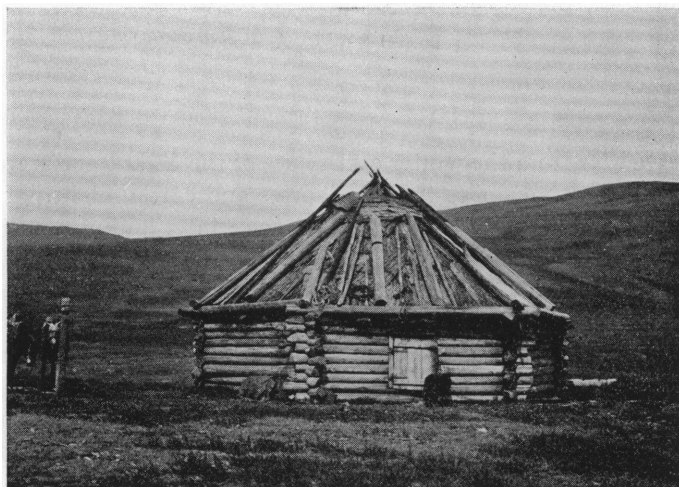


Fig. 25. Polygonal Sloping Roofed Blockhouse at Verkhne Kolymsk.

and shut out mosquitoes. We may assume that this kind of dwelling was invented by the Yakut after their arrival in their present territory from a more southerly habitat. Indeed, the present Yakut dwelling is far more fitted to the harsh sub-polar or polar climate than any type of tent.

When living near cities or Russian settlements, the Yakut abandon their earth huts and live in log houses of the Russian type. Fig. 23 illustrates a log house of a rich Yakut elder on the Lena River not far from the City of Yakutsk.

As a summer dwelling, the ancient Yakut used a conical tent covered with birchbark (Fig. 24). It differs from other types of birchbark tents in size and in the heavy and solid construction of the wooden frame, so that it cannot be easily transported. These large tent-like dwellings

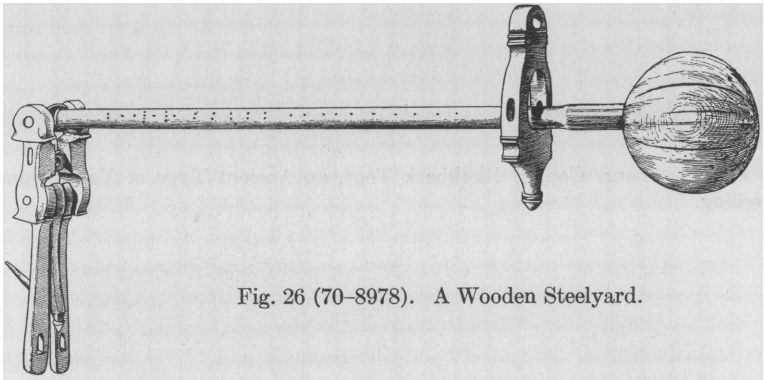


Fig. 26 (70-8978). A Wooden Steelyard.

were located far from the winter earth huts of the Yakut and were occupied during the summer so that the horses and cattle might not injure the meadows on which hay is grown for the winter and near which the winter dwellings are situated.

The fireplace of the birchbark tent is constructed like the hearth of the earth hut, i.e., it is a large wooden bottomless box filled with beaten clay. The only difference is that in the tent the fireplace is situated in the center under the opening in the top and has no chimney. This type of dwelling is no longer used, though twenty-five years ago it was occasionally observed. The tent was ornamented with engravings, wood, and birchbark carvings, sinew and horsehair embroidery, and with slivers of colored mica and pieces of bright cloth.

In some districts a polygonal sloping-roofed blockhouse (Fig. 25) was used instead of the conical tent. The author saw such blockhouses

among the Yakut fishermen of the Upper Kolyma River, as well as among the local Russian settlers. The Altaian Turks also use such a dwelling.

CLOTHING

Headgear takes many forms. One type, worn by men as well as women, has a somewhat pointed top and is trimmed with a large strip of squirrel, fox or marmot skin. Two pointed tabs at the sides protect the ears, as may be seen, for instance, in Fig. 27 which shows a Yakut riding on an ox. Caps of such shape may be seen on the so-called "stone women" in Mongolia, according to Marco Polo.



Fig. 27. A Yakut riding an Ox harnessed to a Sledge loaded with Plaited Grass Mats.

A fairly common form for a man's fur cap is shown in Figs. 28 and 29. It has two leather strips which are tied under the chin.

Not far from Yakutsk and other Russian settlements, Yakut men wear round caps of the Russian style with crowns of foxes' legs and trimmed with land otter fur.

In Fig. 30 is illustrated a woman's cap made of fox legskin, trimmed in front with a strip of land otterskin. There are two pairs of leather tie strings; the first is tied under the chin, the second around the neck. The back is ornamented with strips of leather and calico. It is lined with fur from the belly of a fox.

A rich woman's cap is shown in Fig. 31. The top is of woollen cloth; the front is decorated with an ornamental silver disc called *tusaxta*, which is described below (Fig. 63). The lower part of the cap is of black



Fig. 28. The Summer Costume of an Impoverished Yakut.

foxskin and at the back covers the neck and hangs down the back. In form it resembles the old caps of rich Kirghiz women.

Fig. 32*ab* shows the front and back of an ornamented top for a woman's cap, decorated with tiny many colored beads. On the front (Fig. 32*a*) is a round silver plate *tusaxta* and on the back (Fig. 32*b*) a red cloth figure, the whole resembling the hat of a Catholic prelate. Beneath this, silver ornaments are fastened to the cloth between two bands of embroidery in silk. Fig. 33 shows two Yakut women from Yakutsk wearing felt hats called *kergemsex* which are imported from European Russia. In

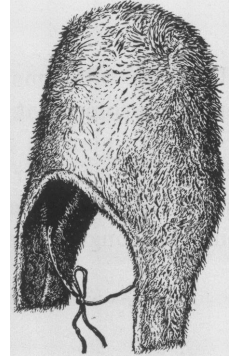


Fig. 29 (70-9229). Fur Cap worn by Men.

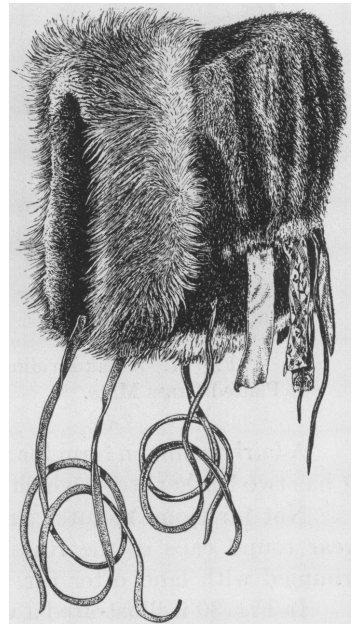


Fig. 30 (70-8509). Fur Hood worn by Women.

the summer men wear Russian cloth caps with a shade (Fig. 34) or tie a folded handkerchief or a leather string around the forehead. Women cover the head with a large colored calico handkerchief.

Of Yakut outer clothing the *son* should be mentioned first. It is a single-breasted coat reaching to the knees, of curried reindeer skin, plush, cloth, or other material, lined with hare, fox, marmot fur, or wadding. *Son* or *suon*



Fig. 31. A Rich Yakut Woman dressed in a Lynx Fur Coat, Black Fox Mittens, and a Fur Cap ornamented with Silver.

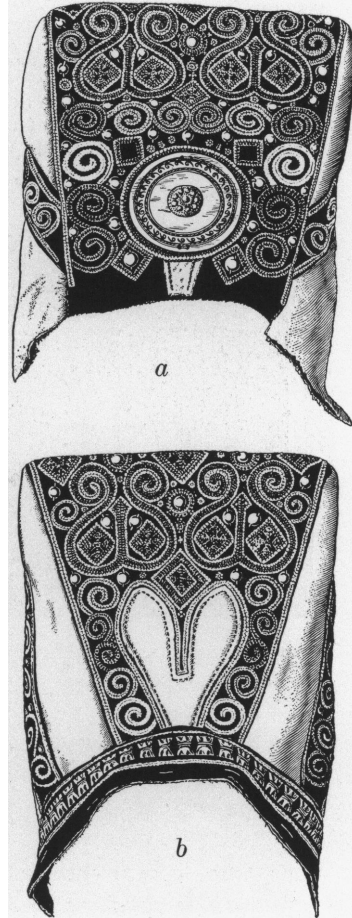


Fig. 32 *ab* (70-8594). Ornamented Crown for Woman's Cap. *a*. Front view; *b*, Back view.

means full, stout, or corpulent. Poor people wear no other garment but *sons* made of mare, cow, or calfskins with the hair on, turned inward toward the body. The summer *son* is made of some light weight material, cloth or plush, with a thin lining. It is always single-breasted with a



Fig. 33. Two Yakut Women (mother and daughter) from Yakutsk, wearing Felt Hats of Russian Importation.

tight back and loose skirt; the sleeves are tight at the wrist and enlarge gradually to the shoulders, where they are gathered into folds. To give fullness to the skirt gores are set in at the sides, producing many folds in this ugly garment. The collar of the *son* is always worn flat. The *son* of a poor Yakut is shown in Fig. 28. On a journey the Yakut wears an overcoat (*supun* from the Russian *zypun*) made of white, yellow, or gray cloth over the *son*. Its skirts are even fuller than those of the *son*. In addition, the skirt is slit at the back to facilitate riding. The



Fig. 34. A Yakut Elder on Horseback, wearing a Russian Cloth Cap with a Peak.

collar and the side borders are usually trimmed with plush or red cloth. In a woman's *supun* the lower border of the skirt is also ornamented.

For traveling the Yakut also use another kind of shirt-like overcoat made of reindeer skins without a slit in front. The Yakut buy this type of garment ready-made from the Chukchee, Tungus, or Yukaghir. Such coats have different names adapted from the Russians, like *parky*, *kuklyanky*, *kukashky* (Russian *parki*, *kuxlanki*, *kukashki*).

Sanayax or *sañyyax* (fur outside) is a long fur overcoat which reaches the ground. It is made of different kinds of fur. In Fig. 31 a lynx coat is shown. The borders of the skirt and sleeves are trimmed with land otter fur. The collar is also of land otter. The lynx has been

practically exterminated by hunters in Yakut Province and its skin is very expensive. Lynx coats are generally found in rich families who have inherited them from their parents.

The type of woman's coat shown in Fig. 35 is called *parchevoi sanayax*, from the Russian *parcha*, which means silver or gold brocaded material used for the ceremonial clothing of priests. The back and sides of the coat



Fig. 35. Woman's Coat decorated with Beaded Bands.

are covered with strips of *parcha*. It is lined with squirrel and covered with land otter. The skirt is trimmed with lynx. On the back and sides may be seen various decorative pieces of silver (*simax*). The collar is of sable leg fur. As in other Yakut overcoats, this skirt is also slit at the back to facilitate riding. The photograph (Fig. 35), taken by the author, is of a Yakut woman of Yakut Province from whom the coat was purchased. The beaded decorations on the right side of the coat are called

sasyltumsa, meaning fox's nose. On the left side of the coat is attached the strike-a-light (*xatat*) (see Fig. 36) with a leather bag for tinder (*kyalyk*); the cover of the pocket is decorated with a silver ornament. Also attached to the coat are the *iskax*, small pincers with which women pull out their pubic hair, and *sabaska*, a little wooden calendar. In addition to the silver pendants and bead decorations the coat is embroidered in silk. All the pendants on the left side of the coat are called *ottuk simaha*.

The back of a rich woman's *sanayax*, black cloth decorated with silver embroidery, is illustrated in Fig. 37. The collar and skirt are covered with the valuable sea otter fur. The border of the skirt and its slit are trimmed with lynx. The silver embroidery, is, I believe, not original with the Yakut but is an adaptation from Russian art.

Some additional women's *sanayaxes* in the Museum collection merit description. A decorated coat of a foalskin with the hair on has a skirt trimmed with lynx. Above the trimming is a checker work strip made of alternate black and white squares, the white of horse legs and the black of horse and cow-skins. On the back is appliquéd a figure made of lynx and *tarbagan* (a kind of marmot—*arctomys* spec.) skins. This, called *kybytya*, means a wedge, but the figure is in the form of outstretched wings (Fig. 38) and, according to the Yakut, symbolizes the shoulder blades and has a magical significance.

The preference for *tarbagan* as coat material, says Sieroszevski,¹ originated evidently in their former abode in southern Siberia. In their present territory *tarbagan* is lacking. But Baron Toll² saw this animal to the north of the Verkhoyansk Mountain Ridge as did the writer in various parts of Yakutsk Province.

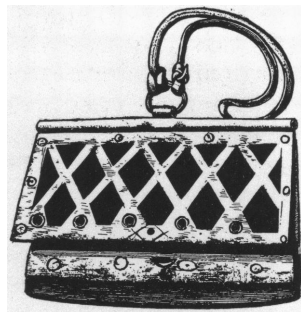


Fig. 36 (70-8633). Steel for making Fire.



Fig. 37 (70-9068). Back of a Highly Ornamented Coat, the Type worn by Rich Women. The decorative motives are embroidered in silver thread.

¹Sieroszevski, *ibid.*, 335.

²Toll, E., *Beiträge zur Kenntniss des Russische Reiches*, 100.



Fig. 38 (70-8499). Front and Back of a Woman's Foalskin Coat.

Fig. 38*ab* represents a *sanayax* of foalskins. The *kybytya* on the back is made of a black foalskin. The white stripes on the skirt are of white horse legskins and the black stripes of black cowskin.

The Yakut *pestreidax sanayax* (evidently from the Russian word *pestryi*, many colored) (70-8523) is of skins of yearling reindeer fawns. The skirt is trimmed with wolf fur, above which is a decoration made of black and white foalskins. The *kybytya* is made of lynx and wolverene furs.

Another *sanayax* (70-8525) in the collection is of lynx fur; the skirt is trimmed with squirrel tails and the *kybytya* is of land otter. One *sanayax* is of the fur of *tarbagans*.

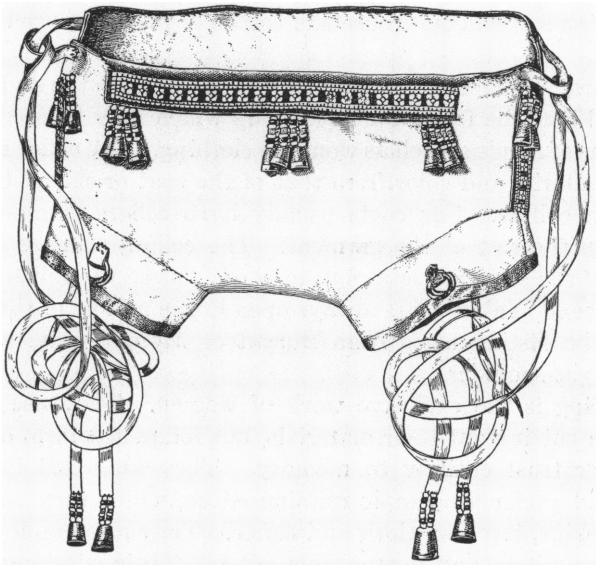


Fig. 39 (70-8724). A Woman's Trousers of curried Elkskin ornamented with Beads and Brass Bells.

Formerly the *sanayax* was worn on the naked body, but now under this fur coat the wealthier Yakut wear Russian shirts of calico or some other cotton material which they call *yrbaxy* (Russian *rubaxa*),—short, to the haunches or knees for men, and long, to the condyles or heels, for women. The woman's long shirt is also called *xaladai*. The Yakut do not wash these shirts. They remove them before going to bed, sleeping under their fur blankets, naked, except for their short trousers of soft, curried reindeer skin called *sarysyalya*. These are worn by men and women alike, and are shaped so that they are higher behind, leaving the

abdomen uncovered in front, which deficiency is made up by the wearing of warm stomachers.

A pair of woman's trousers of curried elkskin ornamented with beads and brass bells is illustrated in Fig. 39. To these are attached two rings to which leggings, stockings, or high boots may be tied. The long leather strings are intended to tie around the stomach protector.

In some cases the short pantalets have developed into long, tight trousers, the lower ends of which are tied around the legs and over the ankles with strings. Many Yakut, particularly near Russian settlements, wear wide trousers of the Russian style. Trousers are made chiefly from reindeer or calf leather and, for the winter, are fur-lined. Near Russian settlements trousers of cotton or plush are used during the summer.

We turn our attention here to two peculiarities in the style of Yakut clothing: First, the fancy for flat collars which may be seen in all the illustrations of men's as well as women's clothing. The collar is always of different material and color from that of the coat or shirt. Cloth coats have plush collars. Fur coats usually have collars of more valuable peltry than the rest of the garment. The collars of mare or cowskin coats are of the same material, but in black. Even the calico shirt has a collar. Second, Yakut coats always open in the middle of the front and may thus be distinguished from Buryat or Mongol coats which open near the right shoulder.

Tailoring is the exclusive work of women. They use no special patterns in cutting out their materials, but follow the form of some old garment, or trust entirely to memory. They know all the Russian stitches, but prefer the simple running stitch, which they use not only in sewing skins, but also cloth and calico. They also employ the back stitch, cross stitch, and button hole stitch. Their stitching is uneven and coarse. They do but little embroidery. The old embroidery patterns were made with silk, sinew thread and horsehair (from the mane or tail).

A general name for any kind of footwear is *eterbes*, from Turkic *etik*. Footwear varies with the season and its use for riding or walking on snow, in water, or on rocky and swampy ground. The most characteristic Yakut footwear, called *sāry-eterbes*, or horseskin boots, may be seen in Fig. 40b. These are made of dressed and dyed black hide from the hind quarters of a horse. The flat sole is turned up to form the instep and sewn to the top, forming a wedge. The seams are made with great care and the boots are waterproof. A buckle back of the ankles serves

to keep the boot tight. As the top is made in one piece with the front part of the boot-leg it becomes folded, the folds being softly dressed. These high-topped boots reach the thighs. The tops of the bootlegs are decorated with colored cloth or plush. The sole is made of a thick piece of horsehide, while the top is made of the same hide split in two. The northern Yakut use sealskin for soles when it is obtainable. The

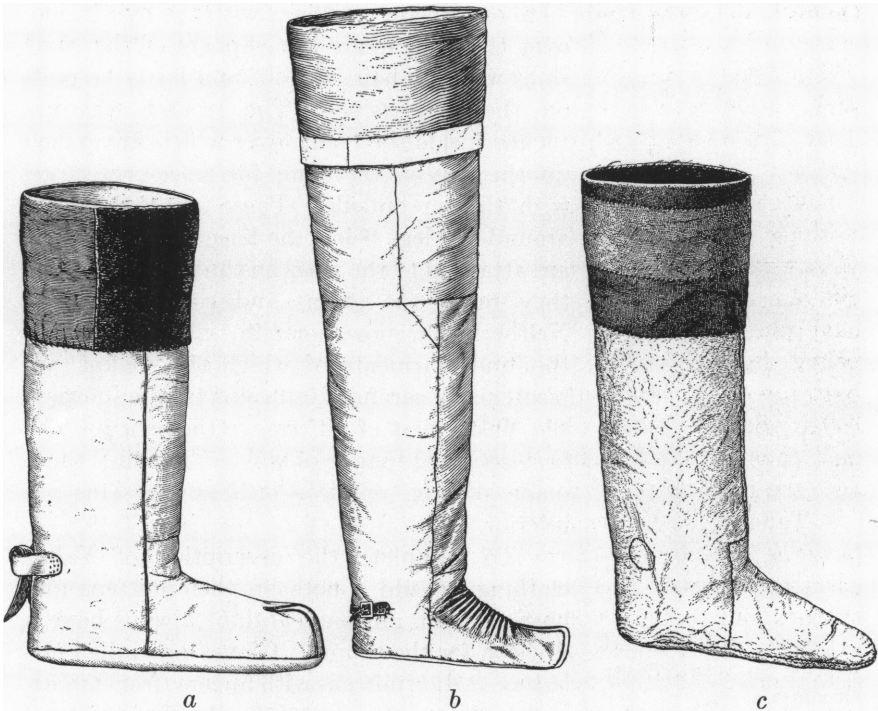


Fig. 40 a-c (70-8498b, 8563a, 8721a). Yakut Footwear. a, Boots of soft dressed elkskin used in winter for horseback riding; b, High boots made of dressed and dyed black horsehide; c, Stockings of calfskin with the hair on worn by women.

sāry-eterbes is very comfortable and light but loses its shape and waterproof character when used for wading for a long time or to walk in deep snow, since it seems to be adapted especially for riding or climbing. It may be distinguished by its turned up toes.

A boot of soft dressed elkskin made wide enough to wear over fur stockings (*koñulet eterbes*), is used in winter when horseback riding (Fig. 40a). A stocking of calfskin (Fig. 40c) with the hair side in, is worn

by women and called *jaxtar kencete* (woman's stocking). Over these stockings are worn hare socks. The legs of the stockings are decorated at the top with red and green cloth. In the summer cloth stockings are worn.

A Yakut girl wearing horseskin boots (*sāry-eterbes*) with silver decorations at the top may be seen in Fig. 41. Leather bands are wound around the ankles.

Before starting on a trip the Yakut lines his boots with dry grass. On his bare legs he wears hare or calfskin stockings with the hair inside:



Fig. 41. A Yakut Girl wearing Boots with Silver Ornaments.

over these he wears low slippers of the same skins with the hair outside; and lastly he pulls on the *sāry-eterbes*. The trouser legs are tucked inside the boots, over which are pulled up the *sotury*, traveling fur knee-protectors, with the fur outside. These are tied lightly around the legs below the knees and their tops are attached to the rings on the trousers, where they reach the groins and cover the hips. Neither wind, snow, nor rain, will penetrate to the undergarments of which the Yakut are particularly careful. Returning from a journey, the Yakut first of all remove the *sotury*. The best *sotury* are made of wolves' legskin; those made of fox, reindeer or mare legskins are inferior.

To complete the description of Yakut clothing we add a note on their mittens and boas. Yakut mittens (*ütülük*) always have a division for the thumb. Gloves are called *tarbax ütülük*, mittens with fingers (from *tarbax*, a finger), or *nuca ütülük*, Russian mittens. Yakut mittens are not slit at the wrist; this they regard as a Tungus fashion. Instead of the slit there are often strips of leather from which the mittens hang when working with the bare hands. The Yakut mittens are wider and clumsier than those of the Tungus. Attaching the mittens to the coat sleeves and the use of a wrist protector are also regarded as Tungus styles. When a Yakut hunter goes into the woods in winter to set traps and self-acting bows, to keep the hand warm and soft he wears large double fur mittens, reaching to the elbows.

A woman's mitten may be seen in Fig. 42 (*jaxtar ütülüge*). It is made of skins of white fox legs, trimmed at the opening with wolf fur;

the dark fur under the trimming and at the edge is land otter. This mitten has no slit nor leather strips.

Fig. 43 represents a boa (*moitoruk* or *moituruk*) made of squirrel tails (*xobo moitoruk*). Pieces of squirrel tails are sewn into rings which are strung on a leather line. There are large boas which may be wound two or three times around the neck. The boa, a very important part of the winter costume, is used by the Yakut to cover his chin, mouth, cheeks, and nose; he breathes through the fur and thus diminishes the effect of the frost. When the boa becomes wet he turns it around and the wind soon dries the moistened part leaving a rime on the fur which can be

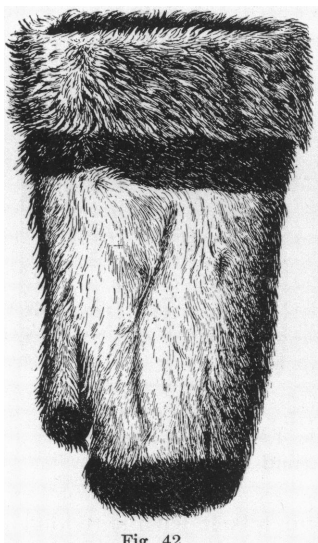


Fig. 42

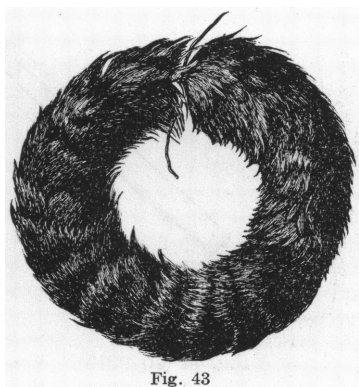


Fig. 43

Fig. 42 (70-8561b). Woman's Mitten made of Skins of White Fox Legs.

Fig. 43 (70-5110). A Boa made of Squirrel Tails.

shaken off. There are also boas made of hare tails (*kuobax moitoruk*, 70-8892 and 70-9078).

The Yakut like to belt their overcoats with leather girdles decorated with metallic attachments. Usually on the left side of the belt is tied a case containing a knife (*kynaxbysax*), which can thus be easily drawn out with the right hand (see the description of the Yakut blacksmith); on the right side is hung a strike-a-light. The tobacco pipe (*xamsa*) and pouch (*sappya*) are usually thrust in the right boot leg. Sometimes the knife is tied to the right side of the trousers, to which brass rings are sewn for that purpose.

In addition to the clothing enumerated above, the Yakut sometimes wear a *shiletzik* (Russian *shilet*, waistcoat), *altyc* (Russian *galstux*, cravat), *kufaiky* (Russian *fufaika*, sweater), *plat* (Russian *platok*, handkerchief), etc., which they have adopted from the Russians together with their names.

At home, the Yakut, particularly in the summer or during the winter before the hearth, prefer wearing only short breeches. Women wear their skirts.

Pipes are of various shapes. The bowl may be of iron, brass, pewter, or bone and the stem often consists of two halves held together by a leather binding. By loosening the leather strip the stem may be cleaned. A tobacco pipe made of mammoth ivory, the bowl and stem being of the same material, is shown in Fig. 44. To diminish the strength of the leaf

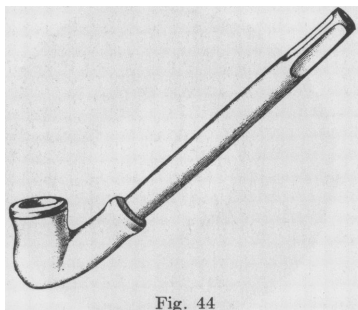


Fig. 44

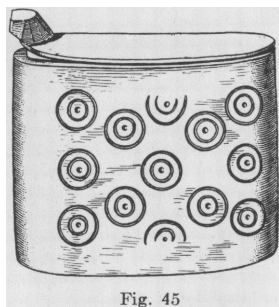


Fig. 45

Fig. 44 (70-9210). Pipe made of Mammoth Ivory.

Fig. 45 (70-8940). Wooden Snuff Box.

tobacco and also for economy, the Yakut mix it with shredded poplar bark (*tiräx tatyrga*). They also adopted the custom of snuffing tobacco from the Russians. A wooden box for snuff may be seen in Fig. 45.

Bedding consists of a fur robe (mare, reindeer or bearskin) called *tälläx* and a blanket, *suorhan*. The blanket is sewed of hares' backs, legs, or heads or of white fox legs and tails. Poor people cover themselves with their fur coats and sleep on grass mats. Pillows are made of calico filled with bird down or feathers. Usually two people sleep under one blanket with their heads in opposite directions. (For the position of sleeping places in the Yakut dwelling see p. 135). A Yakut traveler usually carries his own bedding with him, for even rich people seldom own a sufficient quantity to accommodate transient guests.

My observations on the ability of the Yakut to endure severe cold may be of interest on this point. When spending the night in the open

they do not use fur sleeping bags as do the Russians and some of the Tungus, nor do they sleep dressed in double fur clothing like the Chukchee and Koryak. They simply cover their naked shoulders with a hare skin blanket. There is a Russian proverb which says: Keep the feet warm, the head cold. The Yakut follow the opposite custom. When traveling in winter with Yakut drivers it was noted that they lay with heads and not their feet near the campfire. Usually one of the men stayed awake to tend the fire, but it sometimes happened that everyone fell asleep, the fire was extinguished, the blankets were lifted by the wind, exposing the naked backs of the sleepers to the frost which was covered with rime,—and they continued to sleep.

POTTERY

In our discussion of dwellings we noted the Yakut use of clay to cover their earth huts and to rub their stoves. For these purposes they use an inferior clay called *cuor*, meaning simply, earth, soil. Clay for pottery is called *tuoi*. It cannot be said that Yakut pottery reaches great perfection, since the ceramic art is still in a low stage of development. However, clay pots are made everywhere in Yakutsk Province, except in its northern districts. The Yakut of the Verkhoyansk and Kolymsk districts and the northern part of the Viliuisk District neither manufacture nor use pottery.

Pottery-making requires the joint labor of men and women, the former find the suitable clay and the latter construct the pots. Pottery clay is found in the valleys of mountain rivers, usually forming a layer two meters thick under the black surface soil. That the Yakut brought the art of pottery-making with them from their original home in the south may be proven by the potsherds excavated in the Baikal region. Neither the Buryat, the present inhabitants of that region, nor the Mongols generally, ever made pottery. The potter's wheel and such refinements of the art as polishing, glazing, or painting, are all unknown to the Yakut, so that their pottery-making did not extend beyond the confines of the rudimentary technique.

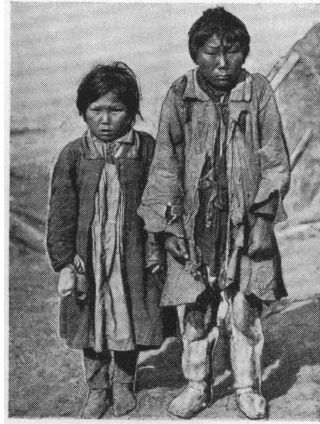


Fig. 46. Costume of Poor Yakut Children.

The methods pursued by the Yakut are fairly simple (Fig. 47*a-g*). The clay, *tuoi*, is crushed on a flat stone with a wooden mallet called *ötüyä* (Fig. 47). Then the powdered clay is placed in a wooden trough where it is mixed with warm water, milk or *sorat*, a kind of sour milk. Often a powder made of fragments of old pottery is added to the mixture. The paste is beaten with the wooden mallet until it becomes soft and plastic. Then a clay disc is moulded and placed on a flat board; the walls of the vessel are built up by adding strips of clay until the desired size is attained. To give the pot a regular rounded form, willow rings,

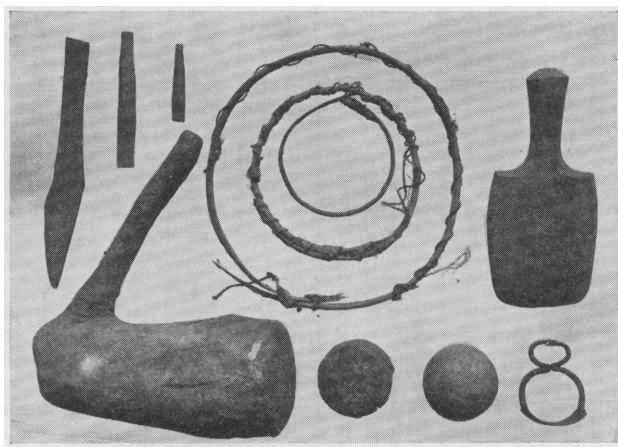


Fig. 47 *a-g* (70-8589, 9242, 8592*b*, 8592, 9245, 8591, 9243, 9244, 8775). Pottery Making Implements. *a*, Wooden mallet; *b*, Willow rings; *c*, Two wooden balls; *d*, Wooden paddle; *e*, A wooden knife for cutting clay; *f*, Two wooden stamps for ornamentation; *g*, An iron cleaner for cooking pottery (See Fig. 48).

called *küös-itä* (Fig. 47*b*) are placed around the bottom and the upper rim while the walls are being built up. They are smoothed and made of uniform thickness with a wooden ball (*küös oxsor mäs*) (Fig. 47*c*) held inside the pot in the left hand while a wooden paddle (*küös oxsor lop-paky*) is applied on the outside (Fig. 47*d*). Fig. 47*e* shows a wooden knife for cutting clay; Fig. 47*f*, two wooden stamps for ornamentation; Fig. 47*g* an iron cook pot cleaner (see also Fig. 48).

The method of firing is quite primitive. The vessel is placed on charcoal from the hearth and when red hot, cold water, sometimes mixed with milk or sour milk, is poured over it; then it is heated a second

time. Yakut pots are easily broken and remain porous until milk has been repeatedly boiled in them. The rims, the upper part, and sometimes the whole pot, are ornamented by impressions made with wooden stamps (*küös oyülür mas*, wood for ornamenting pottery). These design motives have special names; for instance, Fig. 53*d*, is called *tyñyrachtach torduya*; Fig. 53*g* is *biltägir*.

Though pottery-making was known to the Yakut since neolithic times it never developed into a real art. This may be explained partly by their early acquaintance with the manufacture of metals, particularly iron, which among the Yakut preceded that of bronze. Clay vessels came to be used more frequently as containers for liquids than as cooking utensils. However, fluids cannot be kept in them a long time without spoiling. After cooking the pot is cleaned with an iron scraper called *käsir* (Fig. 48) and dried.

The forms of clay vessels vary; the commonest is an egg-like shape, the flat bottom of which is much smaller than the mouth. As may be seen from the illustration (Fig. 49*a-d*) the tea pots and charcoal stoves (Fig. 49*a, c*) to keep them warm are made after the Russian fashion. The size ranges from small cups for children to vessels capable of holding four to six gallons.

Additional evidence of the antiquity of the industry among the Yakut appears in the Turkic names for pottery-making implements and vessels. A clay pot is called *küös*; a metal kettle is called *salыр*. Even in places where, as in the northern districts of Yakut Province, no pottery is made at present, the word *küös* is well known and used as a linear measure. In terms of linear measure one may say, "one pot," "two pots," "pot of a walker, horse, or ox rider." For *küös* (pot) the Yakut understand a distance of from seven to twelve versts (from 6.6 to 8 miles). Translating *küös* in terms of time, it means a period during which a pot with meat for an average family is cooked. In Afghanistan *küös* is used as a linear measure of about eighteen miles. Böhtlingk¹ distinguishes the word *küös* as a unit of time from *kös* as a linear measure as does Pekarsky in his Yakut-Russian dictionary, where he interprets *kös* as a term for a day's journey from one camping place to another.

The Yakut do not know how to wash clay or to temper it, using it as it is found, with all its impurities, quartz and other non-plastic materials

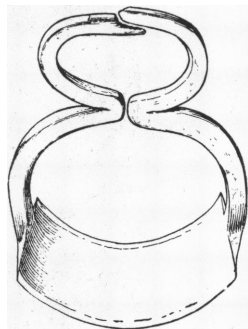


Fig. 48 (70-8775). An Iron Scraper for Clay Cooking Pots.

¹Böhtlingk, *ibid.*

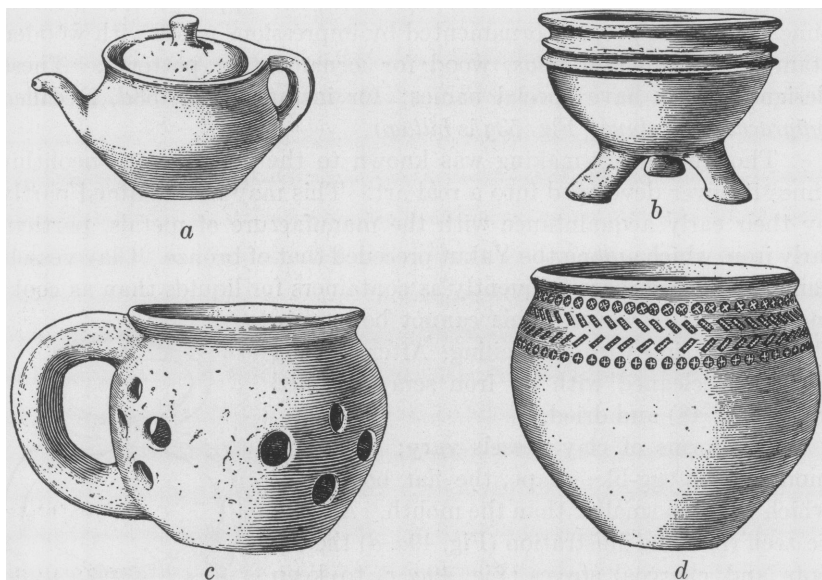


Fig. 49 (70-8894, 8641, 8661, 8586). Pottery Forms. *a* and *c* are forms copied from Russian utensils.

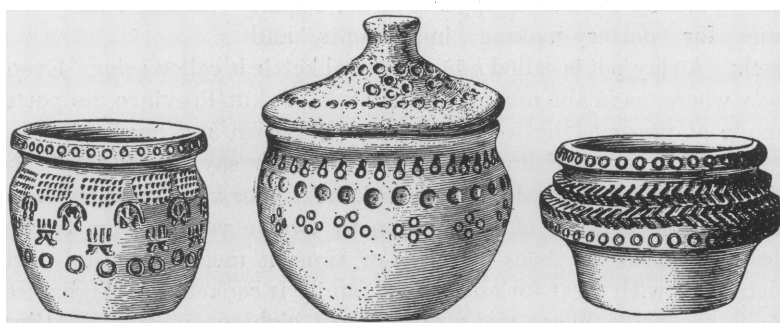


Fig. 50 *a-c* (70-9250, 8641, 9248). Pottery Ornamentation.

which constitute a natural tempering medium. For this reason Yakut clay lacks uniformity, its quality depending on its incidental composition.

In Fig. 49*b* is a tripod clay vessel (*üs ataxtar buor bolčik*) for sour milk. The legs show the tendency to reproduce horse's hoofs as in the wooden kumiss vessels. The decoration of the rim consists of three parallel grooves circling the vessel made by a double notched wooden stamp (*küös oyulūr mas*).

Another form has four rows of ornamental designs around the rim (Fig. 49*d*). In Fig. 51*a-d* may be seen two wooden stamps with which the vessel was decorated. Each design motive forms a single line on the pot. The cross design forms the fourth row and the same motive is put in another position in the first row. This is also true of the second and third rows, where they are sloped in the opposite direction. Two other stamps are carved on the opposite sides of the same stick (Fig. 51*b-c*).

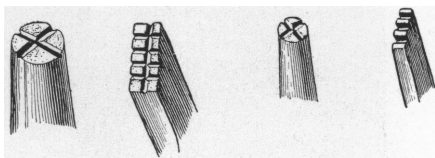


Fig. 51 (70-8593*ab*). Wooden Stamps for decorating Yakut Pottery.

A small clay pot is decorated with repetitions of five design units (Fig. 50*a*). The circles on the rim are like those on the lower row, only smaller. Each of the three inner rows of decoration represents a repetition of the same figure. The figures of the middle rows are so stamped that each design is placed opposite the intervals between designs of the upper and lower rows.

Fig. 50*b* represents a small clay pot with a lid. The decoration consists of circles, discs, and figures resembling the ends of keys with barbs. These motives are enlarged in Fig. 53. Four circles forming a cross are placed below the interval between each second disc.

A small clay pot ornamented with circles and the so-called backbone designs on projecting ridges is shown in Fig. 50*c*. Both designs are also shown enlarged in Fig. 53. The interior of a Yakut winter dwelling illustrated in Fig. 52 shows clay pots on the hearth and a woman smoothing a new pot with a paddle. She holds a wooden ball inside the pot with her left hand to support the wall while the outside is smoothed. Some Yakut potters of the environs of the City of Yakutsk have learned from Russian potters both to add salt to the paste, making the pottery stronger, and also the art of glazing. The handles on the vessels illustrated in Fig. 49*a, c* as well as the spout to the tea pot (Fig. 49*a*) are made in imitation of Russian pottery.

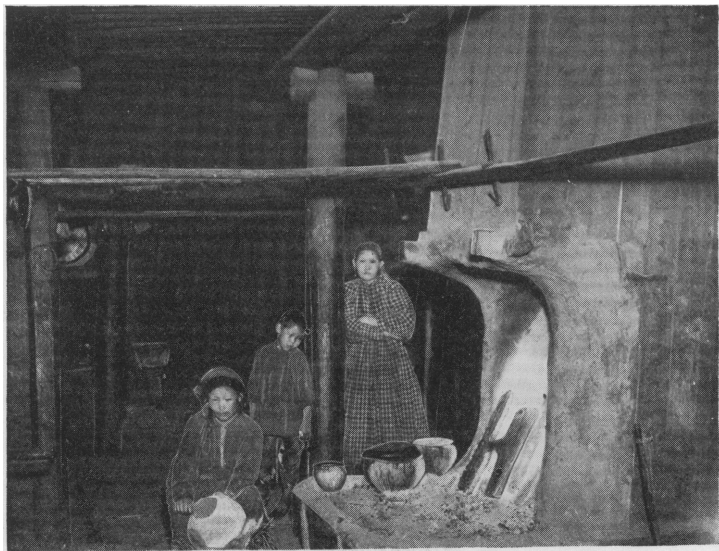


Fig. 52. Interior of a Yakut Winter Dwelling. A potter is at work near the hearth.

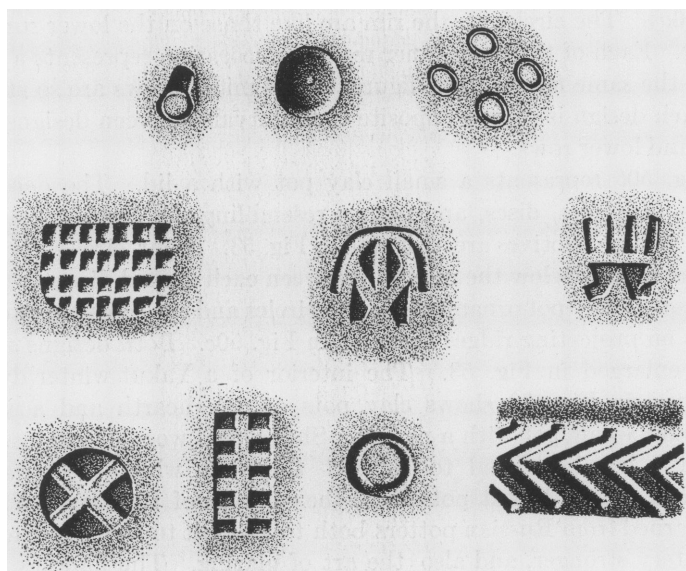


Fig. 53 (70-9249, 9250, 9248). Types of Pottery Designs.

At the market at Yakutsk I have seen white clay pottery made with the potter's wheel. These wares were made by Russians. I could not learn, however, the origin of the white clay.

The Yakut of the northern districts of Yakut Province, Verkhoyansk and Kolymsk, of the lower course of the Lena, and of the villages on the Olenek, Khatanga, and Anabara rivers, neither use pottery nor have any knowledge of its manufacture, but utilize iron and copper utensils. It is curious that they do not know that their southern relatives from whom they separated about two hundred fifty years ago still use and make pottery. This is surprising since there are passages in folk tales referring to clay pots.

The fate of Yakut pottery demonstrates the possible differences in the sequence of development of culture. Among civilized nations the ceramic art has been perfected simultaneously with the development in the production and manufacture of metals. With the Yakut, as with other Siberian tribes, the opposite occurred. For instance, the present Kamchadal and Koryak do not know that their forefathers made pottery, but archaeological excavations¹ by the author on Kamchatka Peninsula and within the territory of the Koryak brought to light ancient specimens of their pottery. Compared with the Koryak and Kamchadal, however, the Yakut are relatively much more advanced in culture having, in the past, been affiliated with other civilized Turkic nations of southwestern Asia.

METALS

At present the Yakut are acquainted with iron, copper, bronze, silver, gold, tin, and lead. All these metals, except tin and lead, still retain their old Turkic names: iron, *timir*; copper, *altan*, red copper, *jas altan*, yellow copper; brass, *üös altan* or *ürüñ altan*; bronze, *čyañ* (after Sieroszevski); silver, *kömüs* or *ürüñ kömüs* (white *kömüs*); gold, *kysyl kömüs* (red silver); tin, *xolholyun*; lead, *sibinäs*, *xolholyun* is a Mongol word and *sibinas* a Russian word (*svinetz*).

Iron. Iron (*timir*) is historically and economically the most important metal among the Yakut who were acquainted with the reduction of iron ores and iron manufacture before reaching their present abode. There are no data to prove that they worked iron before they learned the manufacture and use of copper, bronze, and other metals. In central Siberia, on the Yenisei and Angara rivers, ancient sites have been discovered on which remains of the late neolithic period were found

¹Jochelson, Waldemar, *Archaeological Investigations in Kamchatka* (*Carnegie Institution of Washington*, No. 388, Washington 1928), 69-76.

mixed with Iron Age objects. One may therefore surmise that places abandoned in the neolithic period were later occupied by iron workers. In the Irkutsk District Professor Petri discovered a genuine iron (not mixed with other metals) age site in the valley of the Murina River, a tributary of the Kuda, which empties into the Angara River. Remains of earth huts similar to those of the present Yakut were found. The people were cattle breeders as was evidenced by the bones of oxen. Here were also found fragments of pottery, slag, furnaces, pipes, and a prehistoric mine shaft leading to layers of iron ore.

On one site was discovered part of a clay furnace about two feet high and one and a half feet in diameter, above which were alternating layers of iron ore and charcoal. The mixture was fired and air was blown in from below through pipes by means of bellows. During the smelting process charcoal and ore were added from above. The metal thus obtained was removed by destroying the furnace. Remains of such iron foundries have been discovered as far west as the Minussinsk country, i.e., over the entire route alleged to have been traversed by the Yakut to reach the Lena Valley.

At present, iron mining is concentrated in different localities of Viliui and Yakutsk districts. Some *naslegs* of the Markhinsky and Verkhne-Viliuisk *uluses* in the Viliuit District are noted for their iron mining and smelting, as well as some *naslegs* of the East Kangalasky *ulus*, namely the clans living on the Small Batom and Tyukan rivers in Yakutsk District.

The present process of iron mining and smelting does not deviate from the prehistoric method described above. Iron is reduced to the metallic state, as described by Sieroszevski¹ and Maak² in jug-shaped furnaces 3 feet 8 inches high and 3 feet wide at their greatest width, which is usually about 14 inches from the base. The fire clay walls of the furnace are 1½ to 2 inches thick. The furnace is enclosed in a log framework filled in with clay to retain the heat and make it firm. In the lower part of the furnace is a damper for removing the pig iron. Before the operation the damper is closed and covered with a layer of clay. A fire is built and ore and charcoal placed in the furnace from above. The fire is kept burning by blowing on it with bellows and ore and charcoal are added fifteen to twenty times. After the pig iron is separated from slag and repeatedly heated and hammered, soft iron and occasionally steel is obtained. The Yakut prefer it to the imported

¹Sieroszevski, *ibid.*, 381.

²Maak, *ibid.*

Russian iron and call it *sakha-timir* (Yakut iron) as opposed to *nucha timir* (Russian iron). The Yakut iron ore yields 10 per cent iron, the Yakut are unable to handle the process in order to obtain a desirable sort of iron or to make steel. The imported steel, however, is too expensive for the Yakut. It is very easy to distinguish between the flexible Yakut knives and the hard Russian iron ware.

The Yakut Blacksmith. The double bellows (*küört*) of the majority of East Siberian tribes is used by the Yakut blacksmiths. This type of bellows was found not only among the Turkic-Mongol tribes of central and western Asia, but also in Eastern Africa. The Yakut double bellows belongs to the type called *Schlauchblasebälge* (leather-bag-bellows) by German ethnologists. These leather-bag-bellows, in their turn, are known in two forms, one of which is represented by the Yakut double bellows which are distinguished by openings in the form of short slits in the tops of the leather bags. The tubes from the bags run to the furnace where they are united and have a single outlet. Pairs of small sticks are sewed along the edges of the slits. When these sticks are brought together with the hand the bag is hermetically sealed. The blacksmith's assistant, sitting on the floor between the leather bags, alternately raises and opens one of the bags with his fingers, simultaneously closing and lowering the other bag. In this way a continuous draft is maintained.¹ The Yakut blacksmith sits on a low seat at the furnace, his anvil (*kytyk*), tongs (*kytahas*), hammer (*ötuye*), and a file (*igi*), on the ground beside him. All these objects resemble the paraphernalia of the eighteenth century Mongolian smithy illustrated in Pallas' work.² The Yakut, like the Gypsy smith, has remained to a considerable degree an itinerant artisan. Usually he carries his tools and bellows to the place where the work is to be done. In Fig. 54 is illustrated a Yakut blacksmith who has established himself under the roof of a sledge shed belonging to a rich Yakut patron.

In many respects the technique of the smith has remained primitive. One of the disadvantages of the trade is the necessity of having an assistant for the bellows. The draft of the bellows is usually too strong for small objects which burn and too weak for large objects. Sometimes two

¹For a discussion and detailed description of different types of bellows see the following: André, R., *Die Metalle bei den Naturvölkern mit Berücksichtigung Prähistorischer Verhältnisse*. Leipzig, 1884; Beck, L., *Die Geschichte des Eisens*. Berlin, 1870-1871; Foy, W., *Zur Geschichte der Eisentechnik und besonders des Gebläses* (*Ethnologia, Im Auftrage des Vereins zur Förderung des städtischen Rautenstrauch-Joest Museum für Völkerkunde in Köln*, vol. 1, pp. 185-222, Leipzig, 1900); von Luschan, Felix, *Eisentechnik in Afrika* (*Zeitschrift für Ethnologie*, vol. 41, pp. 22-59, Berlin, 1909). Doctor Foy combats the contention of Professor Von Luschan that Africa is the place of origin of iron smelting and the blacksmith's art.

²Pallas, P. S., *Sammlungen der historischen Nachrichten über die Mongolischen Völkerschaften*. 1787. Part 1, Pl. 5.

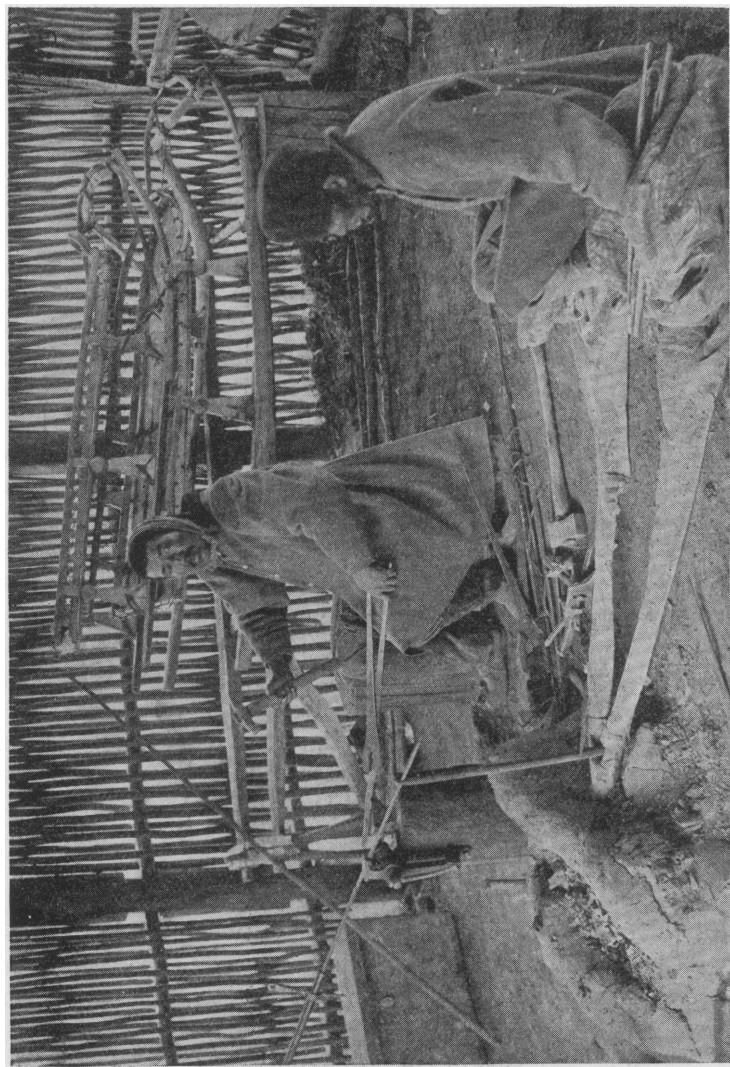


Fig. 54. A Blacksmith at Work. The itinerant Yakut blacksmith usually established himself under the roof of the sledge shed of a rich patron.

pairs of bellows are employed. Welding is not perfectly accomplished and traces of the process are visible. Nevertheless some native blacksmiths near Yakutsk have learned from Russian artisans the art of fluxing and tempering iron. From their own steel, they make files, axes, knives, spears, and other implements sufficiently hard, but they do not know how to forge springs. Until recently they did not know how to cut screws and to drill iron. Now they use Russian screw plates and the screw is called by the Russian name *bint* (in Russian *vint*) or *nuchasuola*, Russian path. Holes are pierced instead of being drilled. They do not know how to cast iron and call it by the Russian name, *djugun* (Russian, *chugun*). Knives made of native iron may be easily distinguished by their softness and flexibility from the hard knives of Russian manufacture.

It is of interest to note that the Tungus as well as the Yukaghir blacksmiths of Yakutsk Province now use the Yakut double bellows while the Tungus of the Okhotsk District use the single bellows of the Russians. The Tungus do not know how to obtain iron from ore and they forge Russian or Yakut iron rods.

Weapons and Tools. The bifurcated iron arrow point (*cĭra*) and the bifurcated bone arrow point (*muos cĭra*) are characteristic of the Yakut. The following are the iron weapons formerly used in war and hunting though at present they are restricted to hunting.

The *bolat*, an ancient iron sword, has a blade 14 cms. long, sharpened on one edge and curved in the direction of the point. The back is straight and thick, though somewhat thinner near the point. The sides are ornamented with engravings, inlaid with copper and brass. The name *bolat*, however, seems to be the ancient Russian word, *bulat*, for sword. The *bolat* has a short iron or bone handle.

The *batas* or war lance (Fig. 55*b*) has a blade about half a yard long; its greatest width is 1.5 inches. One edge is sharpened. The *batas* has a shaft of birch wood about 1.5 meters long. At present the *batas* is used in hunting bears. Like *bolat*, *batas* does not seem to be a Turkic word. It is known among the Russianized natives in Kamchatka and on the Kolyma River. I could not learn the original Yakut word for this weapon. The Yakut call a saber, *sābyla batas*, but *sābyla* is the Russian word (*sablya*) for saber.

A short, thick knife attached to a birch handle, *batyya*, the diminutive of *batas* is used in hunting and was formerly used in war. It was hung on the arm by a leather thong and regarded as a reserve weapon.

Of other Yakut iron implements the knife (*bysax*, from *bys*, to cut; Turkic, *bychak*) may be distinguished (Fig. 56*a, c*). It is not large, sel-

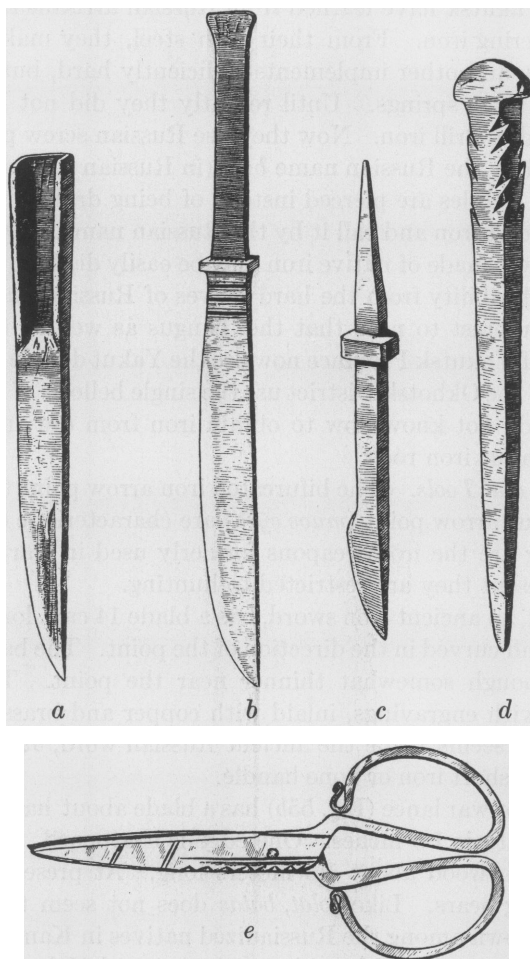


Fig. 55 (70-9302, 9644, 8791, 9305, 9157).
Metal Tools. *a*, Ice pick head; *b*, War spear; *c*,
Ice pick; *d*, Harrow tooth; *e*, Scissors.

dom longer than four inches and wider than half an inch. Its back is blunt, straight, one quarter to five twelfths inch thick. The edge of the blade is slightly curved in the direction of the point. The left side is always ground off. Some of the Yakut smiths make a small groove on the side, near the bevelled edge. Knives similar to this one are not used in southern Siberia among the Buryat, other Mongols, or the Uriankhai, who use dagger-like knives. The haft is usually made in two halves attached to the knife; there are handles into which the tang of the knife

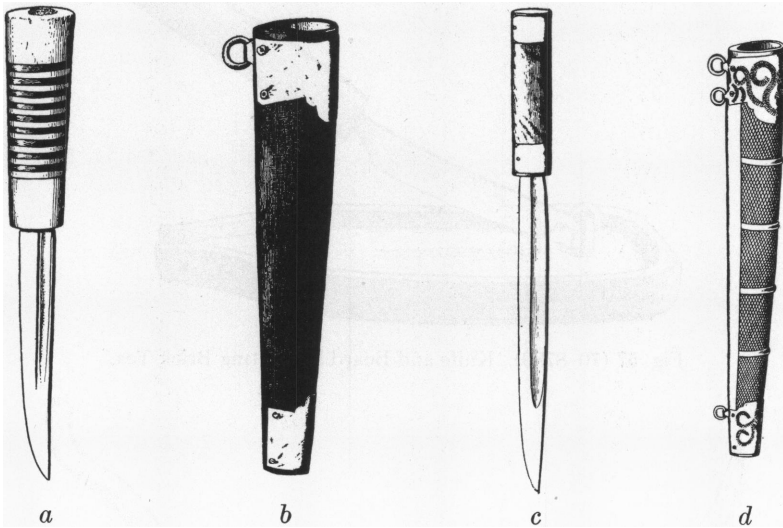


Fig. 56 *a-d* (70-8692, 9313, 9192*a*, 9192*b*). Knives and Sheaths. *a*, Bone handled knife for general use. The incised handle is to insure a firm grip; *b*, Wooden knife case. The case is painted black and ornamented with two pieces of brass and at the left side has a brass ring for attachment to the belt; *c*, A large knife for cutting meat and splitting small pieces of wood; *d*, A wooden case for *c*. It is covered with decorated brass and provided with rings for tying it to the left leg above the knee.

is inserted. Old-fashioned people like to have large knives, *baday* (or *kyadajy*) *bysax*, two *xarys* (distance between the thumb and middle finger) long. There are other knives for special purposes: *säry sülär bysax*, a small knife about two inches long for wood carving; *iät bysax*, a two-edged small knife of soft iron, curved almost into a ring, used to make wooden dishes, goblets, mortars, ladles, spoons, etc.

Iron scissors are shown in Fig. 55*e*.

The ax (*sügä*) has preserved its ancient shape. It is narrow, from 2.5 to 3 inches wide; its butt end is thin. An ax with a broad edge is called

täräx sügä. The Yakut also use the adze for making dug-out canoes and troughs. The adze is called *adalha* or *chüöslä*, from the Russian *teslo*. A knife attached to a board for crushing brick tea and called *čai kyhar bysax* (Fig. 57) should also be mentioned.

Some typical iron implements are represented in the illustrations: In Fig. 36 may be seen a strike-a-light (*xatat*) of steel with a leather bag

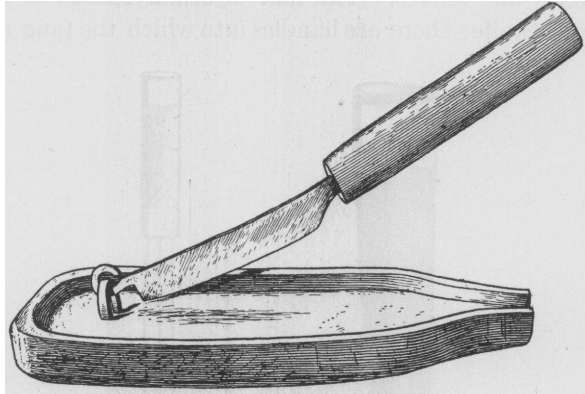


Fig. 57 (70-8780). Knife and Board for cutting Brick Tea.

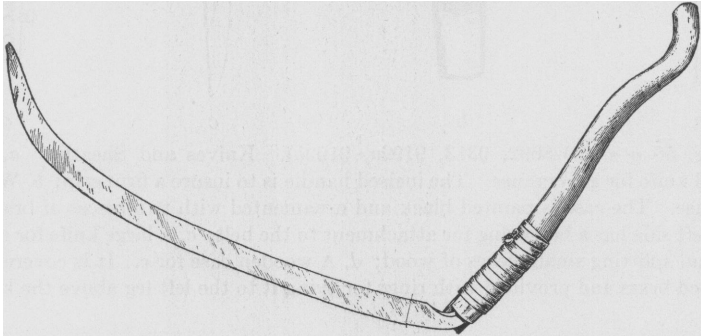


Fig. 58 (70-7691). Metal Scythe used by Russianized Natives at the Mouth of the Anadyr River.

for flint and tinder. Usually small pincers (*iskäx*) for extracting splinters or facial hair and an ear pick (*kulgax xasyñar*) are attached. The *xatat* attached to the belt is worn by men as well as women.

The ancient belt (*timir kur*) was made of iron plates fastened to a strip of leather. Of other iron implements, the following may be mentioned: a spade (*xorür*) and the sickle (*xotür* or *saxa xotüra*) for cutting

grass. The Yakut adopted the use of the scythe (*nüchcha xotūra*, Fig. 58) from Russian settlers.

Armor. Warriors used armor which consisted of small iron plates fastened to a leather coat and was called *kuyax*. The Chukchee and Koryak



Fig. 59

Fig. 59 (70-8532). A Composite Double-Curved Bow, reinforced with Bark and Sinew.

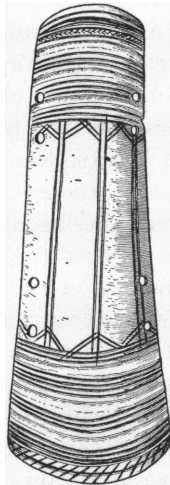


Fig. 60

Fig. 60 (70-8511). An Iron Hand and Arm Protector for use with a Bow.

iron armor described by Bogoras and myself was undoubtedly adopted from Yakut sources, perhaps through Tungus intermediaries. Formerly their armor consisted of bone plates fastened to the skin coat. Gmelin¹ says that the Kirghiz who, like the Yakut, are of Turkic origin had armor

¹Gmelin, Johann Georg, *Voyage en Sibérie, Contenant la Description des Moeurs et Usages des Peuples de ce Pays, le Cours des Rivières considérables, la Situation des Chaînes de Montagnes, des Grandes Forêts, des Mines, avec tous les faits d'Histoire Naturelle qui sont particuliers à cette contrée.* Traduction libre de l'Original allemand, par M. de Keralio. 2 vols. Paris, 1767.

similar to that of the Yakut. A bow is illustrated in Fig. 59 and a hand and arm protector in Fig. 60.

Yakut warriors (*sāpi*, *sāpi kisita*) were usually mounted horsemen (*minjār*), but there were also foot soldiers (*satj'kisita*). Their weapons (*sāp*) consisted of a light bent bow (*sā*), a quiver (*kāsāx*, *sādaṣ*), and arrows (*aya*)¹.

Social Position of the Yakut Blacksmith. The Yakut blacksmith (*ūs*, *timir ūsa*, *timirjīt*) has the same rank as a shaman (see p. 107). According to one tradition the forefather of the Yakut, Elliei, was the first blacksmith. Another traditional blacksmith, named Chyky, was the teacher of warriors. He forged weapons for them and gave advice. Smithing and iron mining are inherited in certain clans. Some clans are composed of miners and iron founders, while others are smiths. The Yakut believe that blacksmiths are able to cure sick people by natural means and not through the assistance of spirits, as do shamans. They are regarded as clever, intelligent, and experienced. A blacksmith of the ninth generation is believed to possess some supernatural power. Such an individual has no fear of evil spirits and can forge the iron pendants for a shaman's garb without danger to himself. Spirits are generally afraid of the rattling of iron and the noise produced by the smith's bellows. It is of interest to note that there are no women blacksmiths, while, on the contrary, women shamans, called *udahan*, are believed to be more powerful than men shamans.

Among all Siberian natives the blacksmith ranks high. His vocation is not regarded as a trade which may be learned by any one but as a divine gift. He is protected by special spirits. Among many African tribes the blacksmith is represented among the officers of the court. In Shugnan and other places in Pamir, the blacksmith's art is regarded as a gift from the prophet David. He is more revered than the *mulla* (literate man who is able to read the Koran). His assistants as well as any onlookers must show respect to the master and his implements. The blacksmith must be clean spiritually and physically; he must avoid evil thoughts and deeds and must wash before beginning to work. The smithy is venerated as a place of worship and when there is no special building for prayers and social gatherings, the smithy takes its place. During communal feasts the anvil is treated with sour milk.²

¹Arrows had names differing in accordance with their shape and material: thus, *kustuk*, a single pointed iron or bone arrow; *cyrā*, a bifurcated arrow; *onohos*, a spear-like bone arrow; *maltar onohos*, an arrow with a rounded head of bone or wood, used for squirrel hunting that the skin may not be defaced.

²Sarubin, J., Légende du Sugnan sur le premier Forgeron (*Bulletin de l'Académie des Sciences de l'USSR*, Series 6, Vol. 20, Part 2, pp. 1165-1170, Leningrad, 1926, in Russian).

The Yakut are mediocre tinsmiths. They solder with pewter though the result is coarse and bulky. The northern Yakut tin with a soldering iron. They do not make tin ware and are unskilled in riveting metals. On the other hand, most of the Yakut blacksmiths are excellent copper and silver workers.

Copper, Gold, and Silversmiths. Most Yakut blacksmiths are expert workers in copper and silver. European archaeologists regard copper and gold as the first metals employed on an appreciable scale between



Fig. 61 *ab* (70-8576), *cd* (70-9073). Child's and Woman's Silver Bracelets. Front and back views.

the Neolithic Period and the Bronze Age. The first copper objects had no tin alloy. Modern Yakut metal workers also use pure copper. From both copper and silver they mould fine, well made small objects, buckles, rings, earrings, crosses, seals, chains, pendants, and other ornaments. From copper scraps they mould and hammer large kettles, tea pots, and even church bells. Their skill in casting equals or even exceeds their smithing. They also smelt and cast gold, making rings, earrings, and bracelets. For smelting copper, silver, and gold, they use small clay forms. Silver is the most desirable metal. They do not like gold,

saying that it looks like copper. Silver plates for saddles are made by smelting a thick plate and hammering it thin. The quality of their silver varies. The best silver objects, the Yakut say, contain 50 per cent of silver, the rest is copper and zinc. The Yakut do not know zinc, but obtain it from imported Russian metallic ware, like latten-brass objects.

Silver Objects. A series of silver bracelets is illustrated in Fig. 61. Fig. 61cd is a pair of silver bracelets (*böhōx*), showing the reverse and

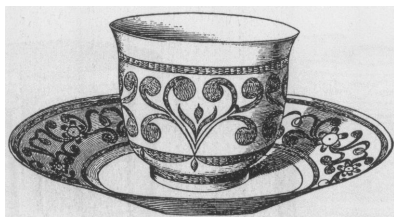


Fig. 62 (70-8669, 8670). A Silver Cup and Saucer with engraved Symbolic Representations of Plants.

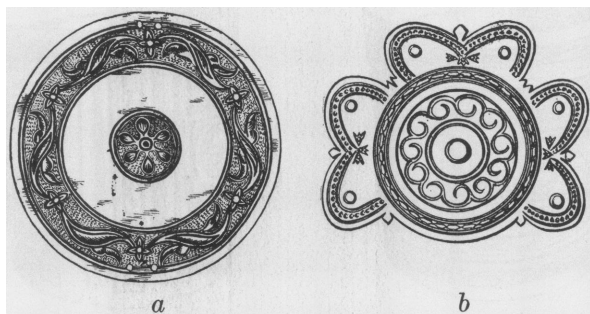


Fig. 63a(70-8764), b(70-9139). Silver Ornaments.
a, A decorated silver disc, part of the embellishment for a woman's cap; b, A silver belt buckle.

obverse, with the clasp fastened. A child's silver bracelets (*ohoböhöhō*) are engraved with symbolic representation of plants. On the large bracelets (Fig. 61cd) is also engraved a zigzag or finger ornament.

A silver cup and saucer, with engraved symbolic representations of plants is illustrated in Fig. 62. Under the upper rim and above the bottom of the cup are circles resembling twisted basketry fiber. The same pattern is repeated on the saucer. Both the cup (*chāsky*) and the saucer (*bülücha*) are called by distorted Russian names which are

actually: *chaska* and *bludéčko*, demonstrating that both vessels were adopted from the Russians. On the other hand, all the wooden goblets and other kumiss vessels have genuine Yakut-Turkic names.

Fig. 63a is a silver disc (*tusaxta*) used for the decoration of the front of the top of a woman's fur cap. The engraved ornamentation represents

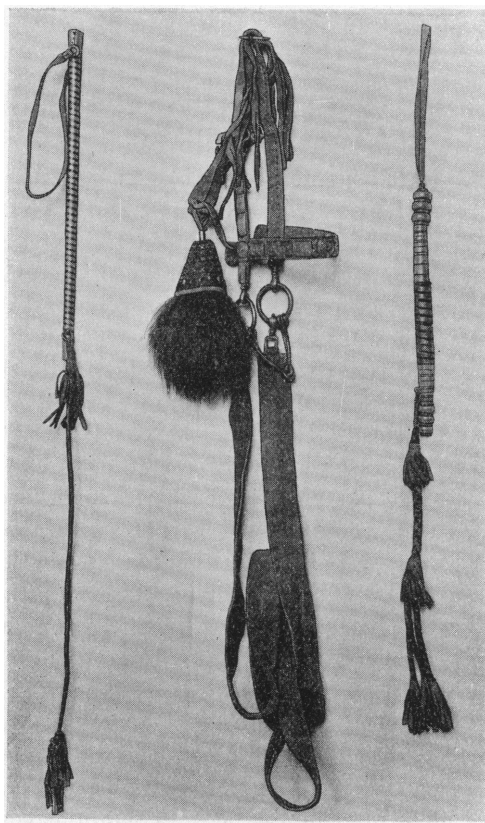


Fig. 64 *a* (70-9165), *b* (70-9139), *c* (70-8519).
Riding Gear. *a*, *c*, Whips with silver ornamented handles; *b*, Silver ornamented bridle.

a symbolic plant pattern. In Fig. 63b is illustrated a silver belt buckle called *biräskä*, the Yakut version of the Russian word, *pryáshka*. Of interest is the central ornament consisting of connecting curves.

Two whips with handles ornamented in silver and a similarly decorated bridle are illustrated in Fig. 64a-c. Whips so decorated are

usually used by rich women riders. The bridle has reins of soft dressed elk leather and is decorated with many pendants like those in the illustration (Fig. 65).

The front of a saddle (*yñŷr*) ornamented with a silver hook and a silver plate is shown in Fig. 66. The plate of hammered silver is engraved with curvilinear figures and fastened to the wooden frame of the saddle with silver nails. Fig. 67 gives a side view of the same saddle. To the wooden base a feather cushion (*tünä*) is attached with leather strips. On the cushion are two brass discs called *bätügür oyulōx*. Leather side skirts (*kychym*) of dressed elkskin cover the body of the horse and are ornamented with leather tassels and decorated with beads, curved silver and brass figures and discs. It is of interest to note that the stirrups (*isāñä*) are attached to the front of the saddle and that, in comparison with European or American stirrups, they are short, so that the horseman rides with knees bent. In the Yakut collection in the Museum are *kychyms* of cloth embroidered with silk and silver thread. Between the cushion and the *kychym* in Fig. 67 we see three leather saddle girths. These are of ox or elk leather or plaited of horsehair (of the mane or tail). Fig. 68 shows a detached *kychym* decorated with leather tassels, red cloth, and velvet, as well as with silver and lead. Fig. 69 represents a silver saddle hook to which the reins are tied when the horse waits for the rider.

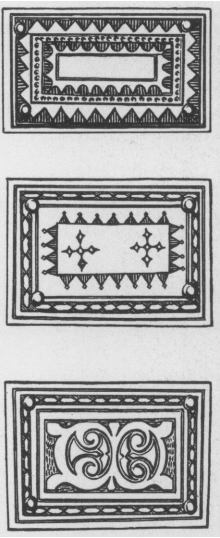


Fig. 65 (70-9139). Silver Ornaments on the Bridle illustrated in Fig. 64b.

A curry comb with silver rings (Fig. 70) is attached to the saddle. A mosquito beater (Fig. 71) for a horse rider is made of horsehair from the tail or mane attached to a silver ornamented handle. A completely saddled horse with all the accouterments is illustrated in Fig. 72. A saddle cover (*dōpsō*) of fur, decorated with variously formed and colored strips of the same material is illustrated in Fig. 74.

Fig. 73 shows a rich Yakut woman in festive attire with her riding horse fully accoutered, with a cover on the saddle as well as side and hind covers. Women usually like white horses.

Fig. 75 shows a wooden pack saddle (*xañxa*) on a straw cushion (*xañxa bototo*). The straw pad for a riding saddle is called *yñŷr bototo*.

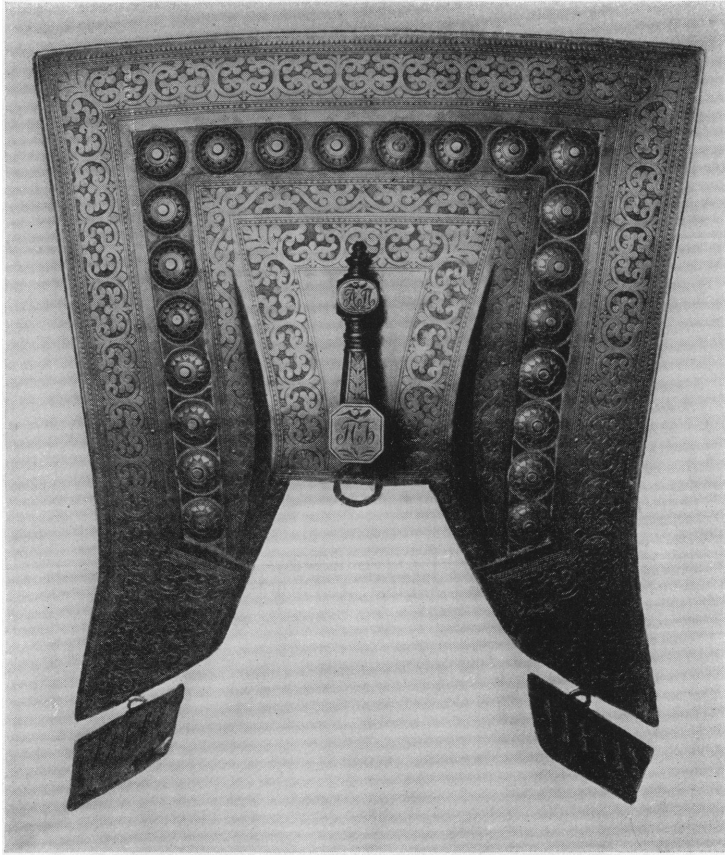


Fig. 66 (70-9136). The Front of a Saddle (See Fig. 67) ornamented with Engraved and Hammered Silver.



Fig. 67 (70-9136). Side View of the Silver-Ornamented Saddle illustrated in Fig. 66.

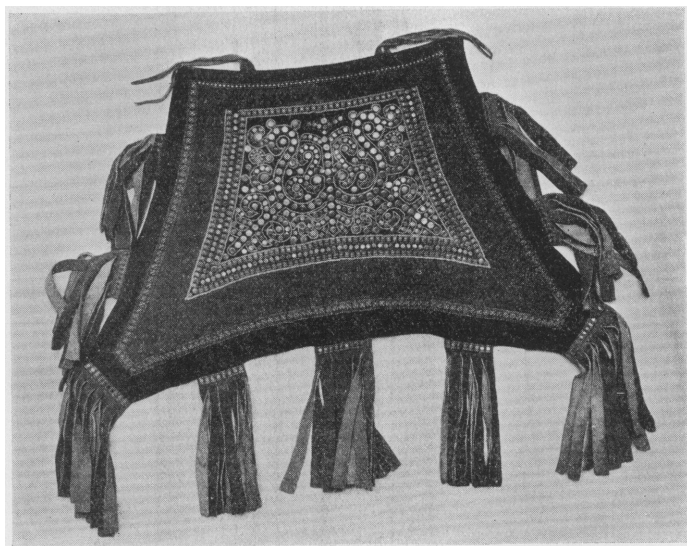


Fig. 68 (70-9138). Silver and Lead Ornamented Saddle Cloth.

In Fig. 76 may be seen an old Yakut in winter dress, mounted on horseback; a double saddle bag is thrown over the saddle and his traveling bedding is tied to the straps behind. The double saddle bag is called *bārāmat* or *pārāmādāi*, from the Russian *peremēt* or *peremētnaya*.

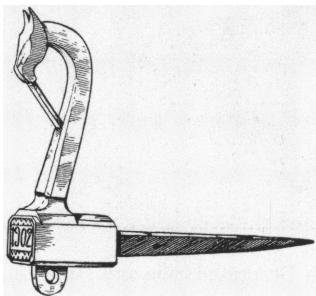


Fig. 69 (70-9115). A Silver Saddle Hook.

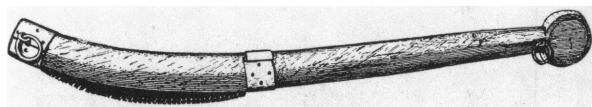


Fig. 70 (70-9168). A Curry Comb decorated with Silver Bands.

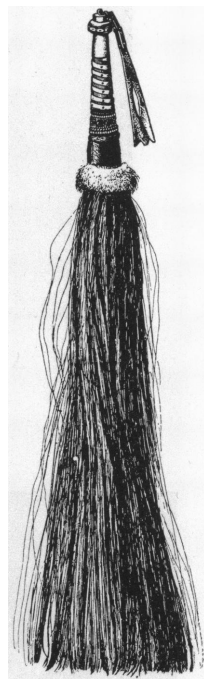


Fig. 71 (70-8577). A Horsehair Mosquito Brush with Silver Decorated Handle used by Horsemen.

AGRICULTURE

In the history of colonization of Yakutsk Province, agricultural colonization occupied a secondary place, although it began immediately after the foundation of the Lensky Fortress, later named Yakutsk (1632). The Russian colonists were attracted to places suitable for agriculture in the Lena Valley and its tributaries. The Government, in its anxiety to provide the Yakutsk and other garrisons with bread, was greatly in-

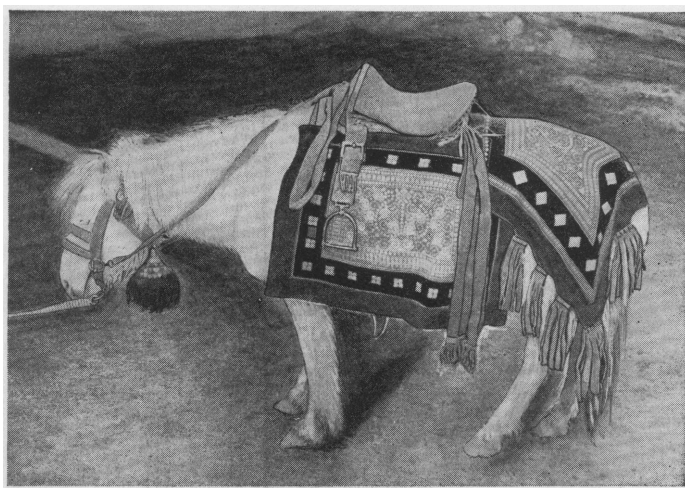


Fig. 72. A Saddled Horse with Decorated Side and Hind Covers.



Fig. 73. A Rich Yakut Woman and Her Riding Horse.

terested in increasing the area of land under cultivation. The native population, the Yakut, had no knowledge of agriculture before their contact with the Russian conquerors in the seventeenth century. They were hunters and breeders of horses and cattle. The Russians began to till the soil in the first half of the eighteenth century. The first isolated attempts had scant success. The government measures to promote agricultural trade had few results aside from demonstrating the agricultural possibilities of the region. This vague status continued until the second half of the nineteenth century. The increase of the number of exiles from European Russia, particularly of the *Skoptzy*, a religious sect, very strongly influenced the development of agriculture.

The Skoptzy. Greek Catholicism was the State religion of Czarist Russia, but there existed many dissenting sects which were persecuted by the government, at the instigation of the State church, and which performed their religious rites secretly. These dissenting sects had many million adherents. They may be subdivided into, first, the *popovtzy*, i.e., having priests; second, *bezpopovtzy*, having no priests; and third, numerous spiritualistic sects. Among the spiritualistic sects the *khlysty* formed a numerous and strong organization with many ramifications. The name is derived from *khlyst*, a whip, as they practised mutual flagellation during their rites. They had their "virgins" and their "love feasts." They were accused by the Church of promiscuity in sex relations and of the sacrifice of new-born infants. Members of the sect called each other "brother" and "sister." It was a tenet of their creed that sexual intercourse between "brother" and "sister" was sanctioned, but to have offspring from such matings was not tolerated. In time, a spirit of protest arose from the *khlysty* against this licentious conduct and a new sect which preached castration was formed. Two kinds of operations were performed on men, the "small seal" (cutting off the scrotum) and the "great seal" (removal of the membrum). Operations on women consisted in amputating their breasts and the outer sexual parts (clitoris, labia minoris and majoris). But the ignorant operators could not reach the ovaries and the mutilations practised had no effect on the fecundity of the *skoptzy* women. The author made a special study of the economic and spiritual life of the *skoptzy* in the Yakut Province and issued several articles on the subject in the publications of the Russian Geographical Society. I remember one *skoptzy* woman who left their village and married a Russian peasant and her great despair when she was unable to nurse her newborn child.

The old Russian law had no penalty for self mutilation, but as the *skoptzy* concealed the names of the operators from the magistrates, the

mutilated were themselves finally made responsible for the operations and were exiled. The operators, if discovered, were sent to the galleys in some of the fortresses on the islands of the Baltic Sea. The diffusion of the *skoptzy* teaching was justly regarded by the government as a menace to the very existence of human society.

The *skoptzy* sect, it is assumed, arose in the beginning of the eighteenth century and soon spread in many provinces of central and southern Russia. In the middle of the nineteenth century the number of its adherents was estimated as 20,000. Besides those actually castrated there were sympathizers among the so-called "spiritual" *skoptzy* among whom were many rich Moscow merchants, who helped the castrates in their exile. At first the *skoptzy* were sent to the cold plains of the Turukhansk District of Yeniseisk Province, where they suffered from the severe climate. Being agriculturists exclusively, they could not follow their calling in the tundras of Turukhansk and they addressed a request to the government that they be transferred to Yakutsk Province. The request was granted. Beginning in 1860 groups of *skoptzy* were transferred to Yakutsk Province. By 1885, near the cities of Yakutsk, Olekminsk, and Viliuisk, and on the Aldan River (near Ust-Maisk) they had ten villages with a population of 1181. This was a strange society which would have become extinct in fifty years had not additional convicted persons been exiled every year and thus replaced the departed. Industrious and with sufficient means, the *skoptzy* developed agriculture on a great scale and thus contributed to its success in the Yakut country. Early in the summer, they arranged hot beds which were protected during the cold nights; thus they grew the most delicate edible plants as early in the season as is possible only in a warm climate. Between 1885 and 1890 they had under cultivation 13,625 acres of land and were striving to seize the State lands. They employed Yakut laborers and thus the latter learned to cultivate the land.

The enterprising spirit of the *skoptzy* was not limited by their agricultural pursuits, for they successfully occupied themselves with commerce and trades. They built mills, tanneries, smithies, harness shops, and kept provision shops. Some of their leaders were prosperous and were able to assist the community in building new houses and roads. The *skoptzy* had no children to provide for and were able to accumulate money and many had large deposits in Siberian banks.

The *skoptzy* were unsuccessful in their desire to propagate castration among the Yakut, who are too realistic and sensual a people, and who ridiculed them. As far as I know, there has been only one case of castrat-

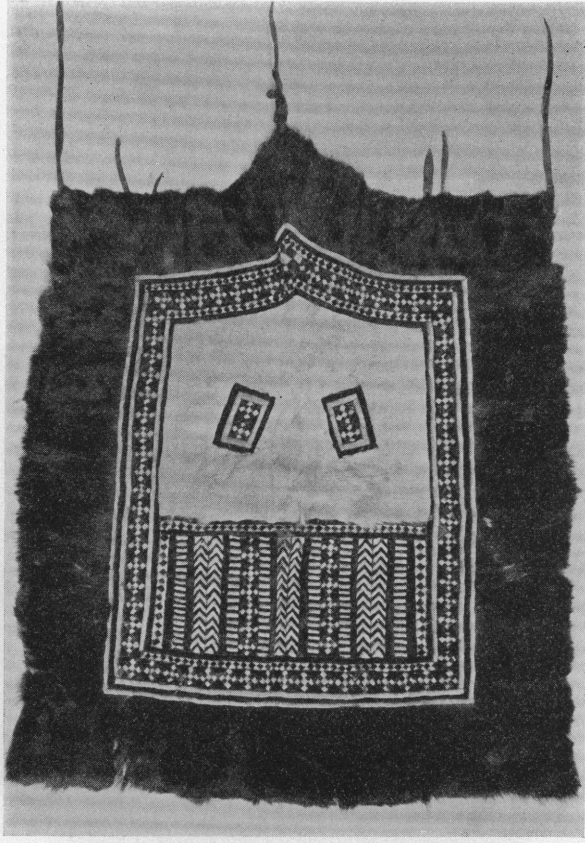


Fig. 74 (70-8572). A Fur Saddle Cover decorated with Varicolored Strips of Fur to form Geometric Patterns.

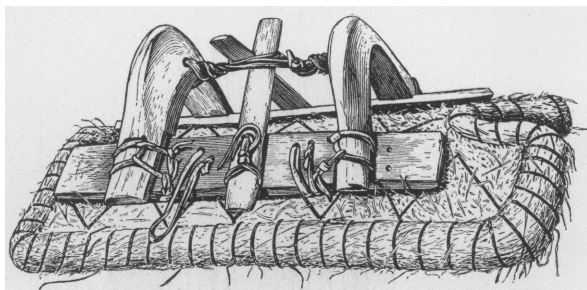


Fig. 75 (70-8815). A Wooden Pack Saddle with Grass Pad.



Fig. 76. A Yakut in Winter Dress on Horseback.

ing a poor Yakut for money, but this incident did not come to the knowledge of the Russian administration.

Being vegetarians, the skoptzy kept horses for driving and farming and horned cattle for their milk and milk products. They kept birds for their eggs.

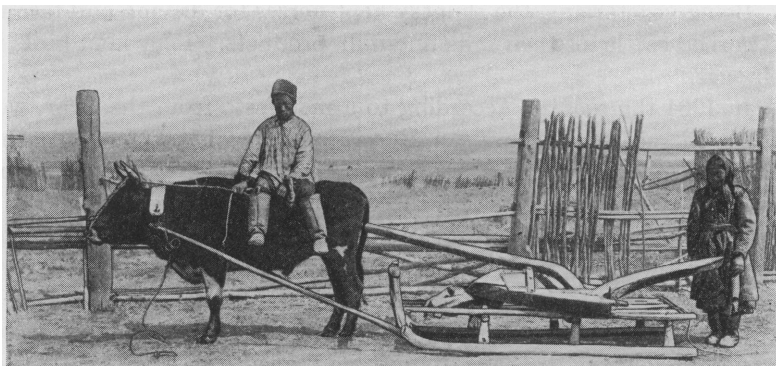
In 1904 the *skoptzy*, according to a manifesto from the Czar, were allowed to return to European Russia and, beginning in 1905, they started to leave Yakut Province, by villages. On their westward journey they told everywhere of their success in carrying on agriculture in Yakutsk Province. Many Russian peasants set out for Yakut Province to occupy the land of the *skoptzy*, but without their resources were unable to carry on their agricultural pursuits on the same scale.

Yakut Agriculturists. The Yakut learned the technique of soil cultivation from the Russians from whom they also received seed. Their first sowing was in 1853 in the valley of the Maya River, thus it is only about seventy-five years since the native population became agriculturists. From that time, agriculture developed rapidly. In the first half of the eighteenth century about 400 to 450 acres were sown in Yakut Province; in 1891 over 16,000 acres, and in 1917, about 34,000 acres. It is interesting to note that three-fifths of the tilled land was cultivated by the Yakut.

The proportion of cereal plants sown was and remains almost constant. In the period between 1917 and 1925 barley occupied first place (from 46 to 59 per cent of the cultivated land), then followed spring and winter rye (from 30 to 39 per cent), spring wheat (from 6 to 13.6 per cent) and oats (from 1 to 5 per cent).

In addition to cereal plants, potatoes should be mentioned. In 1900-1910 these were grown on 700 acres. No other vegetables are cultivated by the Yakut. But Russians living in the suburbs of the cities grow many kinds of sweet herbs, onions, melons, watermelons, etc. The harsh winter of Yakutsk Province has its compensation in the warm summer, the abundant sunshine of its long clear days and the continentality of climate in general. Because of these climatic conditions, the possible period of plant growth is much shorter in Yakutsk Province (central and southern parts) than in countries lying much farther to the south. Thus the average maturation period for barley is seventy-one days, wheat, seventy-seven days, and spring rye, eighty days.

Agricultural methods are still primitive. Some Yakut continue to use the iron spade for tilling. Few possess iron plows; harrows with iron instead of wooden teeth are a great luxury.



a



b

Fig. 77. Yakut Agriculture and Methods of Transportation. *a*, A Yakut man and woman transporting a plow on an ox-drawn sledge; *b*. A Yakut man and woman plowing.

Fig. 77a shows a Yakut man and woman transporting a Yakut plow on an ox-drawn sledge. The method of plowing may be seen in Fig. 77b. A model of an ox sledge is illustrated in Fig. 78. Even in summer it is much easier to transport freight on sledges where there are no roads.

TRANSPORTATION

Outside the City of Yakutsk, the use of the wheeled cart, adopted from the Russians, is very limited throughout the Province. Roads suitable for wheeled transport are rare. They extend only 1036 kilometers: from Yakutsk to Viliuisk (600 km.) and from Viliuisk to Suntar (436 km.). I myself had the opportunity to use a wheeled cart when traveling from Yakutsk about sixty miles to the east to the Churupcha settlement.

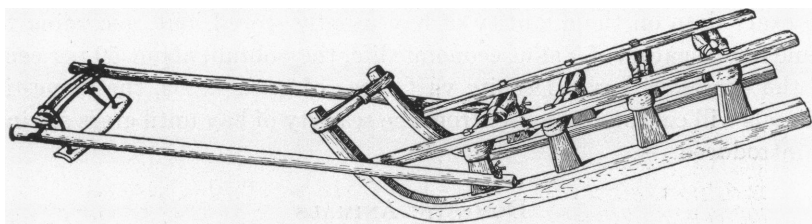


Fig. 78 (70-8832). Model of an Ox Sledge.

All the other roads are swampy and in summer were passable only on horseback; even this means of transportation is very difficult, particularly in the northern districts. In winter sledges are everywhere drawn by horses; in the northern districts reindeer and dogs are also used. Many Tungus, Lamut, and Yukaghir use the reindeer for riding, particularly in the mountainous districts between the great rivers. In summer small steamers ply the Lena and Viliui rivers. On the Yana, Indighirka, and Kolyma rivers and their tributaries large boats are used for carrying freight as well as for passengers. During the winter freight carried on pack-horses or by reindeer sledges from the shores of the Okhotsk Sea (Okhotsk, Yamsk, Ayan or Ola) over the mountains to the upper course of the Kolyma River, is floated down on pontoon-like rafts consisting of two large boats covered with a bridge. Such rafts are provided with a rudder and are propelled with long poles. As they cannot be poled up the river they are sold to the inhabitants of Nishne Kolymsk, who make boats of different sizes from them. Recently I learned that a steamer coming through Bering Strait now visits Nishne

Kolymsk every summer, bringing flour and other commodities for sale or exchange for furs.

CULTIVATION OF MEADOWS

The cultivation of meadows consists in the use of grass land for the maintenance of horses and horned cattle. The long and severe winters necessitate the storage of food for domestic animals and hay is the only available forage in Yakutsk Province. In summer the animals are put out to pasture. The meadows are extensively exploited. The grass is cut with sickles. It is of poor quality because none is sown. The quantity of hay needed for the long winter is enormous and the entire short summer is devoted to haymaking. The hay is of uneven quality. There are many late over-ripe grasses; some of the hay is cut during the rain and is consequently an unsubstantial food for the animals. There are no exact data on the quantity of hay usually stored, but, according to some investigators of Yakut economic life, they obtain about 50 per cent of the necessary hay. Despite vast areas of grass lands, the domestic animals will continue to suffer from the scarcity of hay until grass sowing is introduced.

DOMESTIC ANIMALS

Horse and Cattle Breeding. The first travelers and investigators of Yakut Province reported that the primary occupation of the Yakut was the breeding of horses and horned cattle. Driven from the south to their present abode by Mongol-Buryat hordes, the Yakut wandered with their droves of horses and herds of large horned cattle. The former inhabitants of the country, forced farther south by the Yakut, continued their hunting life, and at the same time kept their reindeer and driving dogs.

Historical data for the last two centuries show that the two branches of Yakut animal industry have developed in the direction of increasing the number of horned cattle at the cost of the number of horses. Originally, horse-breeding predominated among the Yakut, now the number of horned cattle is much larger than that of horses.

The following table shows the average number of horses and horned cattle in the three southern districts (Olekminsk, Yakutsk and Viliuisk) for the years 1901-1910 and 1917.

| | 1901-1910 | 1917 | 1925 |
|---------------|-----------|---------|---------|
| Horned cattle | 304,851 | 482,005 | |
| Horses | 108,942 | 128,465 | |
| Total | 413,793 | 610,470 | 536,589 |

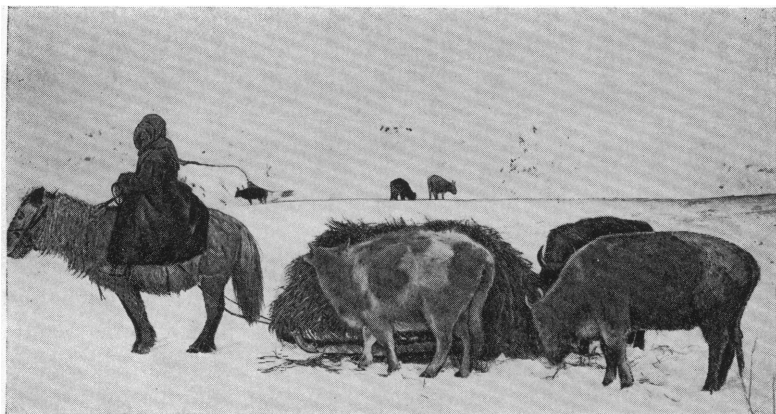


Fig. 79. A Sledge Load of Hay being reduced by the Nibblings of the Always-Hungry Cattle. The sledge is attached to the rider's saddle by means of a thong.

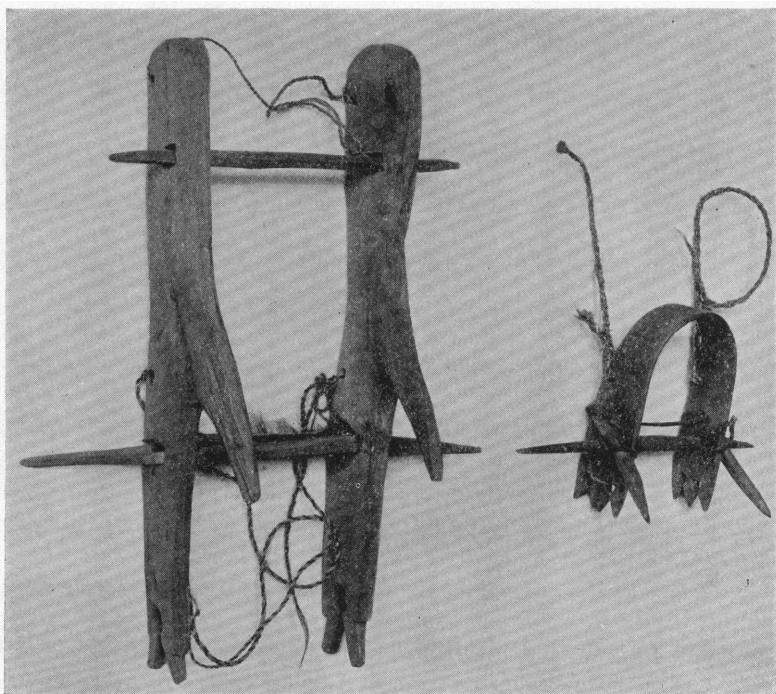


Fig. 80 *a* (70-8900), *b* (70-8901). Muzzles for Young Domesticated Animals. *a*, Muzzle for a calf to prevent it from feeding; *b*, Muzzle for a year-old colt.

In 1917 there was an increase in horses and horned cattle as compared with the preceding years. In 1925, after the revolution, the number of both decreased.

The census of 1917 showed that each Yakut household of the southern three districts had an average of 9.3 horned cattle and 2.4 horses. The two northern districts, Verkhoyansk and Kolymsk, had in addition 1.758 driving dogs and 18.148 reindeer, 5.485 horned cattle, and 4.886 horses per household. The inhabitants of Yakut Province have, on the average, twice as many horses and five times as many horned cattle as the population of the rest of Russia.

The Yakut domesticated animals were originally obtained from the Kirghiz, but have deteriorated in the far north. They are smaller and

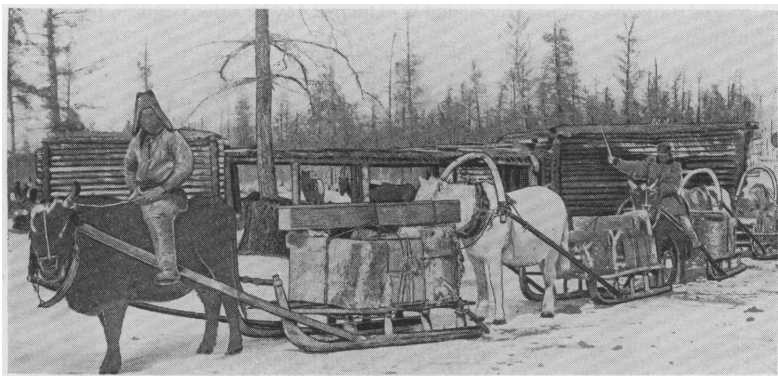


Fig. 81. The Method of Transporting the Museum Collections from the Verkhoyansk Mountain Ridge to Yakutsk City.

less prolific than the original strain. The average weight of a living ox is 320 kilograms and of a cow 220 kilograms, while the corresponding weights of a Kirghiz cow and ox is, on the average, 900 and 560 kilograms.

The average annual milk product of a Yakut cow is only about 560 kilograms, but the fat content is relatively high, from 5 to 7 per cent.

That the Yakut horned cattle are small and less productive may be explained by the unfavorable conditions for food and shelter. The cattle are put out to grass pasture from June to October. Two-thirds of the year, as the result of the long winter and severe frosts, they are sheltered in stalls, where they receive very scanty rations of hay, often of poor quality. In addition, the stalls are small, dark, and dirty.

Reindeer Breeding. The domesticated reindeer is reared in the northern districts of Yakut Province, chiefly by the Chukchee, Koryak,

Tungus, Lamut, and Yukaghir. But the northern Yakut also keep reindeer for driving as well as riding and have also introduced advanced methods in reindeer breeding. The Yakut reindeer is taller and stronger than that of their neighbors. Reindeer breeding is, nevertheless, a secondary occupation. Rich Yakut reindeer owners do not wander with their herds, but hire special Tungus herders. The Yakut herd owners lead a sedentary or semi-sedentary life.¹

According to official statistical data for the end of the nineteenth century, there were, in Siberia, about 20,000 reindeer, of which number the Yakut owned a little over 15,000.²

Dog Breeding. The rearing of driving dogs is concentrated chiefly in the northern and northeastern parts of Yakut Province. In 1910 there were about 1,762 driving dogs in the Kolyma District and about 470 in the Verkhoyansk District, a total of 2,232. But there are no data as to the number of dogs owned by the Yakut alone. In the Kolyma District it was estimated that there was one dog to every twenty-four inhabitants and in the Verkhoyansk District, one to every eight.

Breeding of Swine, Sheep, Fowl, and Bees. These branches of farming are maintained, to a small extent, chiefly by Russians, in the southern cities. According to the census of 1917, there were 1148 swine: in Yakutsk District, 1020; in Olekminsk, 124; and in Viliuisk, only 4. Although sheep were introduced in Yakutsk Province in the middle of the nineteenth century, they did not increase much in number. In 1917 there were only 354: in Yakutsk District, 313; in Olekminsk, 37; and in Viliuisk, 4. Fowl (hens, ducks, geese, and turkeys) are kept only in the cities and chiefly for their eggs by Russians.

Not far from Yakutsk, the *skoptzy* made unsuccessful attempts to rear bees.

¹For particulars as to different types of reindeer breeding see Jochelson, Yukaghir.

²In the opinion of the author the total number of reindeer in Siberia, in general, as well as the number owned by Yakut, are greatly under-estimated in the official reports.

ART

On the route followed by the Yakut during their northward migration have been discovered many *pisanitzy*, or prehistoric pictographs, on rocks. Thus P. P. Khoroshikh in a description of the *pisanitzy* in the Irkutsk country published in 1924¹ illustrates two kinds of writing represented by conventional and realistic figures. Some of the conventional signs are regarded as old Turkic or as the so-called Uigur letters. The realistic figures represent men and animals (horses, reindeer, elk, goats, bulls, and birds). Some archaeologists relate these rock drawings and engravings to magical practices, but it seems unlikely that figures drawn or engraved with such great feeling for form were produced by the artists for any other reason than the mere love of the task.

The carvings of the modern Yakut, however, lack all artistic merit and can in no way be compared, for instance, with those of their eastern neighbors, the Koryak, whose sculpture in miniature not only surpasses the art of the European cave dwellers, but of the modern Eskimo. The vivacity and artistic execution of some Koryak carvings is remarkable. The characteristic posture and movements of animals are rendered with such realism as to produce a vivid image in the mind of the spectator and testify to the great skill and æsthetic taste of the artist.² On the other hand, the human and animal carvings of the Yakut are rigid figures bearing only scant resemblance to their originals. Their artists appear incapable of endowing them with life and motion, as in the ivory carving (Fig. 82) representing a man on snowshoes. The next two examples are somewhat better executed (Fig. 83a-b). Fig. 83a represents a carving in one piece of a wooden oil lamp on a wooden stand at the base of which are carved a horse sitting on its haunches and a cow standing. Fig. 83b represents a saddled horse. Both these carvings were made by a Yakut near Yakutsk who may have been influenced by objects of Russian art. The oil lamp in Fig. 83a (*mas ysyynyk*,³ wooden oil lamp) is made of hard birch root; the horse of softer wood. As to the horse, it is interesting to note that a bridle is not indicated and that the saddle has no girths; the whole appears to be an unfinished piece of work. On the other hand, the animal carvings show a certain liberalism on the part of the artist. To depict human and animal forms is regarded as a sin, since it is feared that any biomorphic representations may be transformed into harmful

¹Khoroshikh, P. P., Investigations of the Stone and Iron Ages of the Irkutsk Country (*Bulletin of the Biologico-Geographical Institute of Irkutsk University*, Part 1, Irkutsk, 1924, in Russian).

²See Jochelson, Koryak, 654.

³*Ysyynyk* is the Russian word *shyynyk*.

spirits. Even representations of the horse, which is regarded as a benevolent being and almost worshiped, are avoided. Only the shaman's dress may be decorated with figures of men and animals which represent his guardians and benevolent and evil spirits (pp. 107-118).



Fig. 82 (70-9367). An Ivory Carving depicting a Man on Snowshoes.

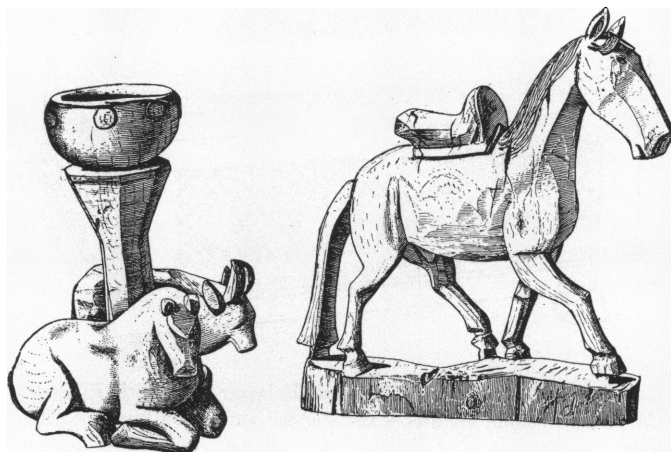


Fig. 83 (70-8799, 8916). Wood Carvings representing a Lamp on a Stand and a Saddle Horse.

Professor Boas has called attention to the difference between the realistic decoration of ceremonial objects and the geometrical designs on those in common use among the Indians and Eskimo.¹ This differentiation is applicable to Yakut art.

¹Boas, Franz, *The Decorative Art of the North American Indian* (*Popular Science Monthly*, vol. 63, pp. 481-498, 1903).

We present here some additional examples of Yakut carving in the Museum collection to show the crudity and rigidity of the execution of human and animal figures in bone or mammoth tusks despite the fact that the carvings were made by Yakut living near Yakutsk in imitation of Russian carvings and to meet the demands of Russians.

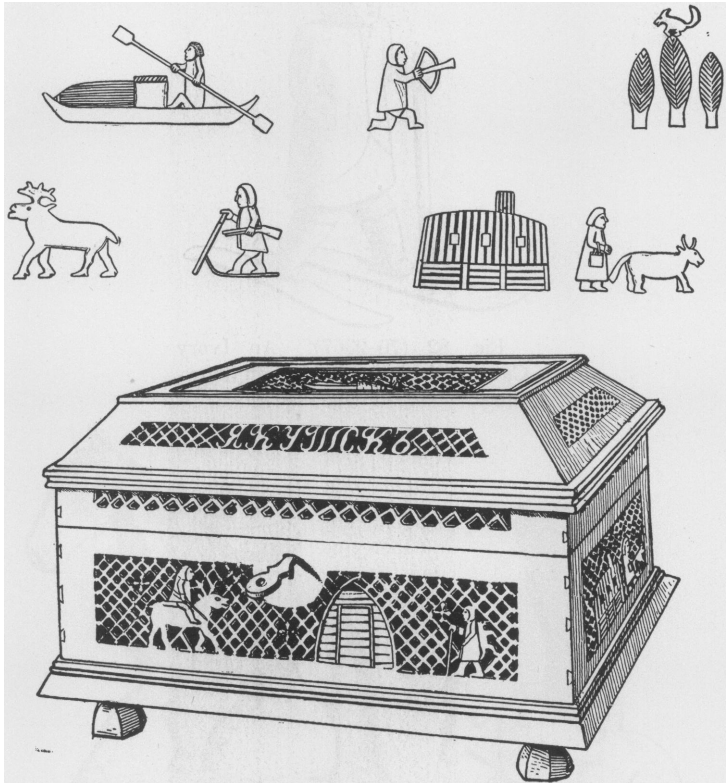


Fig. 84 (70-9382). A Mammoth Ivory Box with Filigree Carving and some Details of the Figures carved on the Opposite Side.

A box of mammoth ivory ornamented in filigree is shown in Fig. 84. On the front is depicted a Tungus riding a reindeer, a conical tent with its entrance door, and a hunter afoot carrying his staff and a dead fox on his back. Fig. 84 reproduces the figures carved on the other three sides of the box: a man paddling a boat with a covered place for passengers; an elk; a hunter on snowshoes carrying a staff and

gun; a man kneeling with drawn bow; three firs with a squirrel on the top of the middle one; a Yakut earth hut; a woman with a pail going to milk a cow. A comb of mammoth ivory ornamented in filigree and an ivory ear pick may be seen in Fig. 85. All other ornamentation

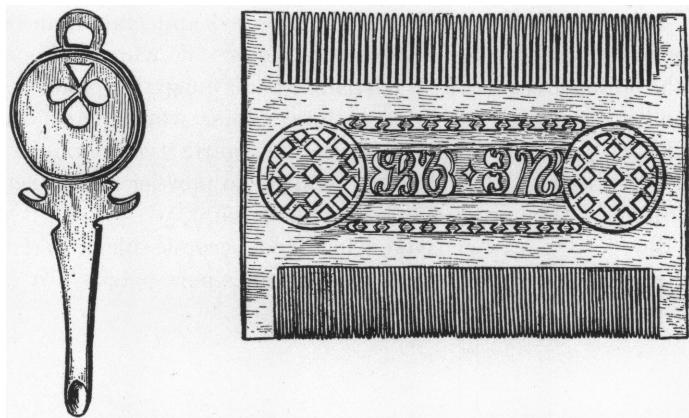


Fig. 85 *a* (70-9088), *b* (70-9097). Carved Ivory Objects. *a*, An ear pick; *b*, A comb of mammoth ivory with filigree decoration.



Fig. 86 (70-8689). Bone Goblet.

of wood or bone objects consists of geometric, skewomorphic, and conventionalized designs. Only the legs or bases of large wooden kumiss goblets realistically represent horses' legs and hoofs. To show the great variety of non-realistic decorative design motives we will analyze the decoration of goblets and other vessels used in kumiss festivals.

The following paints are used by the Yakut for technical purposes.

1. Black paint prepared from the excrescence (chalk stone?) on a horse's tail, which the Yakut call *xoruoncuka* or *xaryancyka*. Women's decorated wooden boxes for sewing material, tools and ornaments, are covered with this paint.

2. A decoction of larch bark produces red and cinnamon colored paints for coloring horsehair (from the mane or tail) which is kept for a while in the boiling decoction. Such painted hair is used for plaiting saddle girths and bridles, which are made in three colors: white, black, and red.

3. Black paint is prepared from the agaric (*yt munna*, a dog's nose) on a birch tree. It is charred, reduced to powder and mixed with blood of animals, thus producing a nice black paint.

4. Blood. Ox-leather soaked in blood becomes black and water-proof. From such leather are prepared containers (sacks) for kumiss and sour milk.

THE KUMISS FESTIVALS¹

During my leadership of the Siberian Division of the Jesup North Pacific Expedition, I was engaged in the investigation of the Koryak and Yukaghir. The results of this investigation were published in two comprehensive volumes. I went to the Yukaghir from the Koryak country across the Stanovoi Mountain Ridge, and my return route to Europe and America lay through the territory of the Yakut and the whole of Siberia.

The years 1888-97 were spent among the Yakut as a political exile. During the two last years of that period I was a member of the Yakut Expedition of the Imperial Russian Geographical Society. Professor Boas, the organizer of the Jesup Expedition, wished to take advantage of my knowledge of the Yakut country and tribe and to acquire Yakut ethnological collections for the Museum. An extensive collection was gathered. Most European museums, even those of Russia, have at present only insignificant collections from this interesting tribe, the ancient culture of which is disappearing under the influence of climate, Russian contact, and other factors.

The large ornamented wooden kumiss goblets described below are not easily obtained at present. The conical birchbark summer dwelling is no longer used. However, the Yakut, though now living in the extreme northeast of Siberia, are typical representatives of the culture of the nomadic or semi-nomadic horse and cattle-breeding Turkic tribes of Central Asia. They have preserved one of the oldest Turkic dialects. They introduced silver, iron, and copper work, fashion in costume ornamentation, dualistic religious ideas, and the poetical folklore of the Tataric peoples of Western Asia. In their old habitat they were principally horse-breeders, but in their present abode they increased the number of their horned cattle to the detriment of their herds of horses and cow's milk became a substitute for mare's milk, from which kumiss is made. Finally, the cultivation of cereal plants, a trait borrowed from the Russians, in the southern and middle parts of Yakutsk Province, has so progressed in the last thirty years, that agriculture is now the chief occupation and bread the staple food of many Yakut of Yakutsk District, particularly of Olekminsk. Nowadays droves of horses and mares for milking, are found only in localities far removed from the centers of Russian influence, and these belong to a few very rich families.

¹Jochelson, Koryak, and Yukaghir, and especially, Kumiss Festivals of the Yakut and the Decoration of Kumiss Vessels (*Boas Anniversary Volume*, pp. 257-271, New York, 1906) where an account of these ceremonies and their paraphernalia was first published.

With the passing of the production of kumiss, the ancient ornamented kumiss vessels and goblets, as well as the customs, festivals, and ceremonials associated with its production and use are also disappearing.

I was fortunate enough not only to collect a great number of ancient kumiss vessels in various remote localities, but also to arrange a kumiss festival not far from Yakutsk. However, before proceeding with the description of the festival I witnessed, it may be of interest to present one version of its origin.¹

Long ago, Onogoi-bai, a Tatar of the Sakha tribe, settled on the Lena River. He came thither with his wife, Sara, his brother, Ulūkhozo, and his men servants, thirteen men altogether. He possessed numerous cattle and horses and nomadized on the left bank of the Lena, on a plain he called Saisary. While living on Saisary Lake, a son, Ān-Taibȳr, and two daughters, Ān-Tshyngai and Nyukā-Kharakhsyn were born to them. Later, a strong and alert youth named Elliei came to him. He was an excellent hunter; roamed through the mountain forests like a wolf, lead bears in by his hand, and dashed through the water like a pike. He entered the service of Onogoi, lived with him three years, and gained the love and respect of all the family.

Once Sara said to her husband: "Er-Elliei is such a clever man, he may be better qualified to become our son-in-law than to remain a worker." Onogoi answered indignantly, "I shall not give my daughter to a stranger. Apparently you like him yourself." Sara replied, "I know you fear Elliei and that he is happier than you are. You tremble when you see him. If you want to convince yourself that what I say is true, stretch a white horsehide through the middle of our birchbark tent, fasten it to the ground with pegs, sit down on it, and with a goblet filled to the brim with kumiss in your hand, call for Elliei." Onogoi did as his wife advised him. When Elliei entered, Onogoi's hand trembled so that he spilled half the contents of the goblet.

When Onogoi convinced himself of Elliei's power, he said to him, "Friend, you have served me faithfully as a relative for more than three years, now I wish to compensate you. My good horse and valuable furs are not sufficient reward for you. You have no woman friend; choose that one of my daughters who pleases you." Elliei thanked him for his kindness and asked for time to consider the matter. Ān-Tchȳngai, Onogoi's elder daughter was rather ugly, while the younger, Nyuka-Kharakhsyn, was handsome and the father's darling.

¹Recorded by Priklonsky and translated into German by Radloff, *ibid.*, 74-77, and re-translated into English by the author.

After three years Elliei announced his choice. All this time he had tried to watch both girls urinate but had succeeded only after three years, because girls of that time were very bashful. He saw that the water of the younger daughter, Nyuka-Kharakhsyn, remained on the surface, while the water of the elder penetrated the ground, unrooted the shrub, and foaming up, took the form of a white ptarmigan. Thus Elliei concluded that the elder would become the mother of many strong children.

The younger sister could not bear the distress of being jilted and, envying the luck of An-Tchyingai, strangled herself with her long hair. Onogoi, in sorrow over the death of his darling, considered Er-Elliei and his wife guilty of her death, and drove them from his house. As a symbol of his parental curse he gave them only a white stallion and a white mare with tails and manes docked and an ox and a cow with broken horns. Elliei worried about the curse. He built an enormous hut and provided the best game and birds for food. He decorated his hut and summer tent with the bones of rare animals and feathers of beautiful birds. Elliei had many children, among them six sons:—

1. Labyngkha-sürük (sürük, the runner), his eldest son, later disappeared, leaving no trace of his whereabouts. He was regarded as the first Yakut shaman and the founder of their religion.
2. Khadat Khangalas, from whom both Khangalas *uluses* originated
3. Djyon-Djabyly (or Djyon-djaby), the forefather of the Boturus *ulus*
4. Molotoi Orkhon, the ancestor of the Mägä *ulus*
5. Däli-Darkhan, had two sons: Borohon-Djurotu, the forefather of the Borohon *ulus* and Sürdakh Düpsün, the forefather of the Düpsün *ulus*
6. Khatan-Khata-Malai, forefather of the Nam *ulus*

Er-Elliei introduced the use of smoke for the protection of horses and cattle against mosquitoes and flies. He drove many mares to the smoke and let them milk. Thus he preserved much kumiss and arranged the national kumiss festival called *ysyakh*. The organizer of the festival was his eldest son, Labyngkha-Sürük, the first shaman. He ordered kumiss goblets (*choron-ayakh*) and ladles (*äbir-khamyyakh*) made from large birches. These were to be ornamented with cords of the hair from white manes. He had three posts driven into the ground on an open plain and put a board across the top. Near the posts he planted young birch trees, bound horsehair cords around them, and ornamented them with tufts of horsehair and named this arrangement *dalbar-chachyr*, offering place. There he put hide vessels containing kumiss and butter. When all the people assembled near the birches, Labyngkha arranged them with heads uncovered in a semicircle, facing the east. In front of the people nine youths knelt on their left knees, holding

wooden goblets filled with kumiss and butter in their hands. He himself came forth with a kumiss ladle and said,

"The god above (Ayi-Tangara) created man that he may live on earth, adorn it, and avail himself of its treasures during his lifetime. The body is feeble and must die, but the soul (*kut*) will live ever green in the sky in the shape of a larch. Over the visible sky are many other heavens and gods, but beneath the earth live evil spirits. At the festival today we thank the gods for creating us and handing us the gifts of the earth, therefore we drink of one vessel as a token of unity."

Then Labyngkha-Sürük came to the boys and taking kumiss from every goblet with his ladle, he flung it into the air as an offering to the gods. With each goblet the names of the following gods were invoked in regular order:—

1. Ari-Toyon-Aha, who has his seat in the eighth heaven
2. Ürüng-Ayi-Toyon, who has his seat in the third heaven
3. Nelbei-Ayi-Kübei-Khotun-iyē, a goddess
4. Nalygyr-Ayihyt-Khotun, the goddess who helps women lying-in
5. Än-älai-Khotun, the mother of the earth, and her son, Äräkä-Djäräka, the god of green vegetation
6. Kürüo-Djösögoi, who had seven brothers:—
 1. Sürdakh-Süge-Toyon, the thunder god
 - a. Än-djäsyn, god of light and lightning
 3. Tangkhasyt-djilka-khan, god of men's fate
 4. Ilbis-khan, god of war
 5. Uordakh-Djasabył, the messenger of god's anger
 6. Khan-iäyäkhsit-ärdän-ayi, messenger of welfare
 7. Süng-Khan-Süngkän-Khomporum-Khotoi-Ayi, god of birds
7. Mohol-toyon and Usun-kuyär-khotun, the protectors of cattle
8. Bāi-bayanai, seven brothers:—
 1. Bai-Parylakh
 2. Kuralai-bärgän and
 3. Kurahachchi-sürük, the gods of hunting and capturing¹
 4. Dobun-sokhkhör and
 5. Suosan (Suodjan)ärkin, the hinderers of hunting and capturing
 6. Tyga-bytyräs and
 7. Khannakh-Sägalän (Sögölön), the gods of trades
9. Bosol-toyon and Buomcha-Khotun, the warders of the road to the gods; Baran-bätyr, the god of the hut; Äläs-bätyr, the god of stables and yard; the seven brothers, gods of fire: Byrdja-bytyk, Kyryl-tüsümär, Kündül chahän, Kürä-chahän, Khän-chahän, Khatan-sotuya, Ylgyn-ärbidja.

When all the gods had been appealed to Labyngkha-sürük exclaimed three times, "*Urui*" and the people reiterated this call. Then a white gull appeared and flew three times around the meeting place. This was regarded as a good omen.

¹Capturing animals with snares and traps.

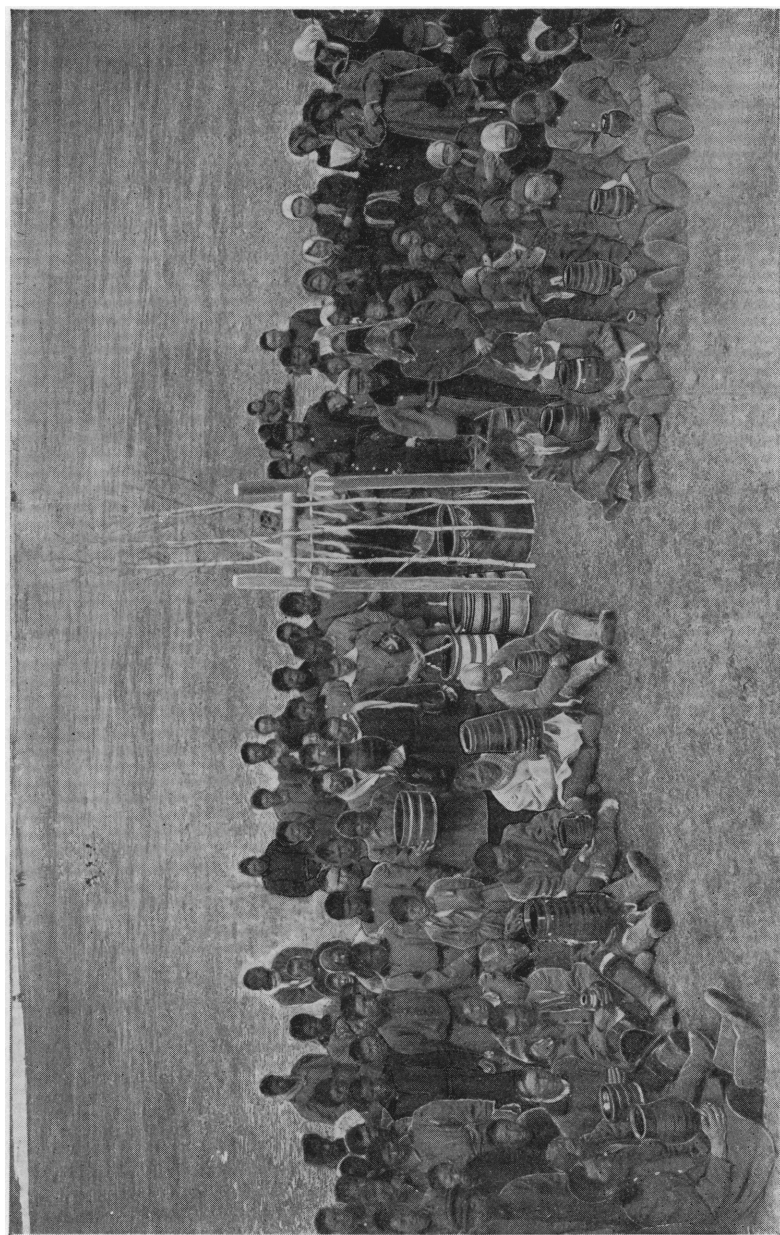


Fig. 87. Kumiss Festival.

Onogoi, as the chief, was given the first goblet. When he took it, he fell to the ground, unconscious and sightless, with stiffened limbs. The people believed it to be a message from the gods because Onogoi had damned Er-Elliei and mutilated the cattle created by god.

Shortly after Onogoi died and all his riches vanished. His only son became poor and subsisted on the booty of his black dog.

The Yakut living in different districts originated from emigrants of the Yakut district, who partly voluntarily and partly forced by powerful tribes, settled the distant region.

After the death of Er-Elliei the kumiss festival was celebrated in the same manner in all the *uluses*.

The kumiss festival (*ysyax*) has both social and religious significance. During the summer, in olden times, every rich man arranged a kumiss festival at which all members of the clan assembled and were entertained. Other people, and frequently whole clans, were also invited. During the festival defensive and offensive leagues were concluded. Every such ceremony was initiated with sacrifices, which were accompanied with songs, dances, games, horse and foot races, and other contests.

Two kumiss festivals in honor of the deities were arranged during the year by the owners of large droves of mares. The spring festival was consecrated to the Supreme Being and the head of the benevolent deities of the class of "creators" (*ayi*),—to Lord-Bright-Creator. The first milking of mares in the spring is also consecrated to the Supreme Being. The spring festival is called *Ayi ysyaxa* (kumiss festival in honor of the "creators"). Spring, as the period of the revival of nature, was the season of happiness and abundance. In the prayers addressed to the "creators" they are implored to bestow their blessing upon the people. The spring kumiss festival takes place in the open air. In the midst of a large smooth grass meadow is erected a kind of altar, consisting of two posts with a cross beam and three young birch trees with young shoots on them (see p. 201). The altar is hung with sacrificial horsehair; on the ground in front of it are placed ornamented birchbark and oxhide barrels filled with kumiss. The skin barrels are tied to the altar-frame by long ornamented strips of soft elk leather, so that the vessels will not collapse when softened by the liquid in them.

The ceremony commences with sacrifices to Lord-Bright-Creator and to other "creators." Their names are uttered by the steward of the festival, who may be a shaman or an older member of the clan. The sacrifices consist of libations of kumiss to every deity, in the direction of the dawn; formerly horses were often consecrated by being driven to the

east, the seat of the "creators." Blood sacrifices were made only to evil deities and not to the "creators." In front of the altar stood the steward with the owner of the drove and his wife on either side of him. All three faced east where dwell the benevolent deities. In a row on the right side of the altar stood nine innocent youths and on the left nine virgins with goblets filled with kumiss consecrated to the benevolent deities. The participants were clad in splendid festival attire, trimmed with valuable fur, silver pendants, and other decorations.

The steward addressed a prayer to the "creators," begging for blessings: increase of horses and cattle, a good harvest of hay, good health for the people and animals, and an abundance of food. Then he took the kumiss festival ladle (*ysyax xamyyaha*) and made a libation, in the direction of the dawn, to the benevolent deities. Then, while making a libation to the ground, he addressed the local deity, "the owner of the place" (*ān doidu iccītā*), asking him not to harm the inhabitants of the spot and the members of the clan. After that, the steward, with the help of the sacrificial ladle, proceeded to prophesy. He threw the ladle towards the sky, and if it fell with the bowl part upwards, it portended the granting of future abundance by the deities and all the people uttered the joyful cry, *Uru!*

Then, according to the directions of the steward, the boys and girls gave the goblets of sacrificial kumiss to the elder and honored members of the clan, both male and female, who placed themselves to the right and left of the altar, drank from the goblets and passed them on to the less important and the younger people. Behind every honored or aged member of the clan, sat or stood his domestics, less esteemed relatives, young men, and laborers, whose welfare was his responsibility. When the goblet was emptied, it was returned to the steward or host to be filled.

At the same time, not far from the altar, other stewards were preparing tables, or simply boards on the ground, on which were placed piles of horse and cow meat and dishes of melted butter. Every chief of a family or clan received a large portion of meat and butter, which he divided among his people.

The whole day passed with songs, round dances, games, races and other contests, and shamanistic performances. The poetical choral songs of the young men and girls, in praise of the spring and love, were very interesting. Middendorff¹ and Sieroszevski² recorded some of these songs. During the kumiss festival the change from winter to spring was

¹Middendorff, *ibid.*, Part 2, 1578.

²Sieroszevski, *ibid.*, Vol. 1, 587 et seq.



Fig. 88. Circle Dance, a Part of the Kumiss Festival.



Fig. 89 (70-8613). Cylindrical Wooden Vessel used in the Kumiss Festival.

dramatized in a contest between two men. One, dressed in white, represented spring, and was called "son of creator" (*ayi uola*); the other, clad in black, represented winter, and was called "son of evil spirit" (*abasy uola*).

The autumnal festival was celebrated in honor of the destructive forces and was therefore called *abasy-ysyax*. It was dedicated to the evil spirits (*abasyilar*), the inhabitants of the west and the representatives of darkness and night, in order that they may not interfere with them in winter, when starvation, disease, and death are imminent. This festival also took place in the open air, but at night.

The first night, the ceremony was in honor of Big-Lord (*Ulu-Toyon*) and the evil spirits of the upper world subordinate to him. The ceremony of the second night was in honor of *Arsan Duolai* and his subordinates, the evil spirits of the lower world. To all of these evil spirits, in addition to the libations of kumiss made to the benevolent deities, blood sacrifices of cattle and horses were also made. This ceremony was superintended by nine male and nine female shamans.

KUMISS VESSELS AND THEIR DECORATIONS

Kumiss vessels may be divided into three types, according to form:—

1. The *corōn*, a very large urn-shaped goblet with a small base holding from ten to fifteen liters of kumiss. Their small bases make them unstable. To drink from them, they must be held with both hands. Three large goblets of varying sizes are reproduced in Fig. 91. Two of them, in addition to the engraved decorations, are ornamented with silver hoops and pendants and one with pendants of red cloth and hair from a horse's mane.

2. *Us ataxtāx corōn*, i.e., tripod goblets of smaller size are illustrated in Fig. 90. Fig. 90a is ornamented with silver rings.

3. Cylindrical vessels with set-in bottoms of varying sizes, and named according to their size, the small one, *mācax*; and the large ones, *ymyja*.

All these drinking vessels are made from the strong, tough wood of the polar birch tree. The first two types are carved and hollowed from one piece. Formerly the adze was the implement used for hollowing but recently a chisel. The finish, polish, and decoration are accomplished with knives only. The sides of these goblets are made very thin and they easily crack when drying. A goblet left empty in the sun for a single day is sure to crack. To guard against injury, they are kept in a dark, damp place, and are also freely oiled with melted butter, which gives them a



Fig. 90 *a* (70-8655), *b* (70-9205), *c* (70-8656). Wooden Tripod Goblets used in the Kumiss Festival.



Fig. 91 *a* (70-9060), *b* (70-9206). Wooden Goblets for Kumiss.

dark brown polish. The large kumiss ladles are also oiled for the same reason. Fig. 92 *a-c* illustrates such a ladle and the engravings at the end and the middle of the handle.

The decorative patterns on kumiss vessels are possibly as old as the religion with which they are connected. In them we find no Central Asiatic or Chinese decorative motives of the more advanced periods of

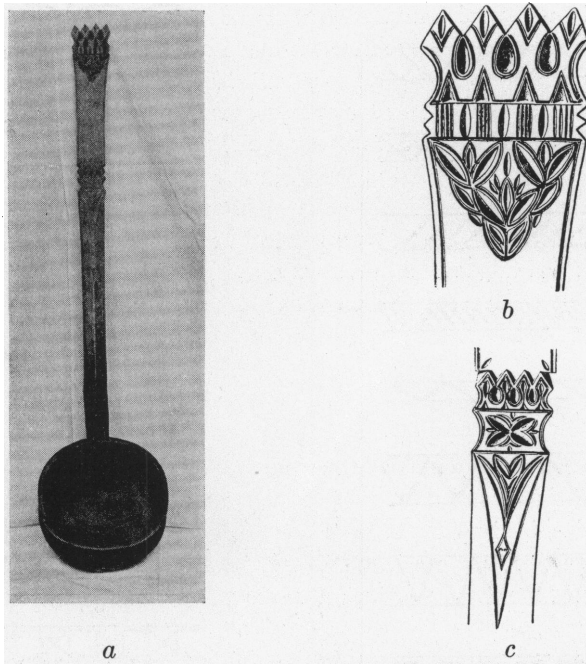


Fig. 92 *a-c* (60-8781). Large Wooden Kumiss Ladle used to fill the Drinking Goblets and Vessels from the Skin Barrel. *b-c*, Details of engravings at the end and middle of the ladle handle.

Asiatic culture; but we do find such decorative motives, consisting of complicated curves, spirals, coils, conventionalized plants and animals on their clothing, saddles, and silverware. The ornamentation of the kumiss vessels consists almost exclusively of geometrical figures which, judging from their native names, represent, in more or less conventionalized form, implements or other household objects.

Fig. 93 presents a series of patterns which occur most frequently on the kumiss vessels.

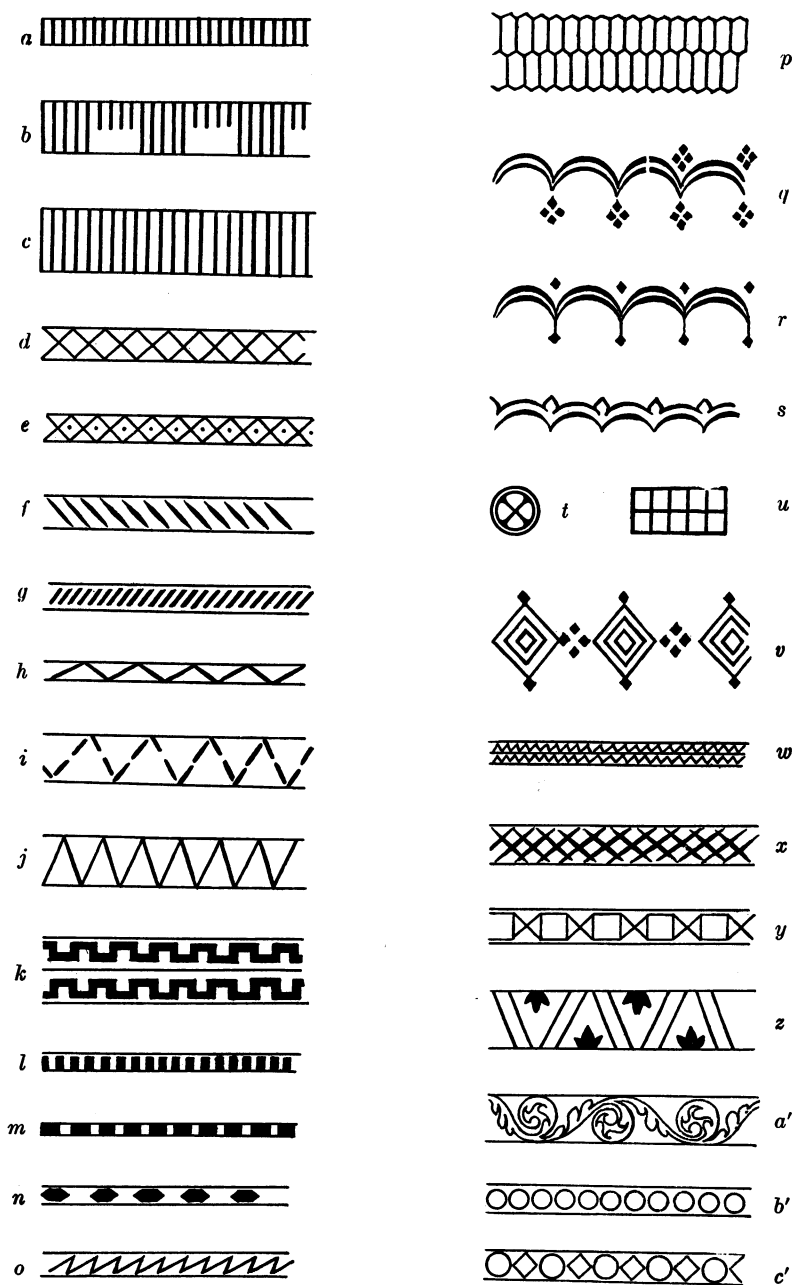


Fig. 93. Designs carved on Kumiss Vessels.

Figs. 93a-c are called *tarāx oyū*, that is, comb ornament, and represent combs.

Figs. 93d-e, are called *ilim xaraha oyū*, that is, net's eyes ornament. They represent fish nets. The dots in Fig. 93e stand, most probably, for fish caught.

Figs. 93f-g, are called *āriyā oyū*, that is, wound ornament (from the verb *ārii*, to wind). They represent the weaving of baskets by winding thread around bunches of grass. The same rope-pattern on the birchbark bucket, Fig. 99, which was made by winding horsehair thread round the hoop of the bucket, is called *āriyā tigī*, which means "twisted sewing."

Figs. 93h-j are called *urasa oyū*, that is, tent ornament. These zigzag patterns represent the large conical birchbark summer tents of the Yakut. The same pattern embroidered in thread or sinew on skin bags is called *urasaly tigī*, that is, tent embroidery.

Fig. 93n is called *kybytya oyū*, that is, wedge ornament (from the verb *kybyt*, to force in), and represents a wooden wedge for splitting wood.

Fig. 93v is called *tīmāx tördö oyū*, which means button-base ornament. This pattern, consisting of a series of three or four inscribed diamonds, used to be embroidered on the old-time clothing of the Yakut, at the places where the buttons were sewed on.

Fig. 93w is called *kārdis oyū*, that is, notched ornament, and represents the primitive Yakut writing by means of notches on sticks.

Figs. 93b'-c' are called *kokuor oyū*, that is, kumiss skin bag ornament, and represent large hide kumiss vessels.

It is of interest to note that all the patterns so far mentioned are of a purely decorative character, have no connection with religious ideas, and consist not alone of the simple units but of their highly harmonious and extremely symmetrical repetition.

Neither in the engraving and carving on the wooden kumiss vessels, nor in the embroidery on the leather and birchbark containers, do we find any realistic representation of animals or objects. Realistic art was evidently unknown in the past. The old-time Yakut considered it a sin for any one except shamans to carve human figures from wood. The shamans carve these figures roughly of wood, to represent guardians or evil spirits, for use in religious ceremonies, and they are not regarded as harmless to ordinary folk. I saw figures of cows and horses carved from wood or birchbark, to be used by children as playthings, but there were never any dolls. Some Yakut, living not far from the Russian town of Yakutsk, carve, among other things, human figures from ivory; but I

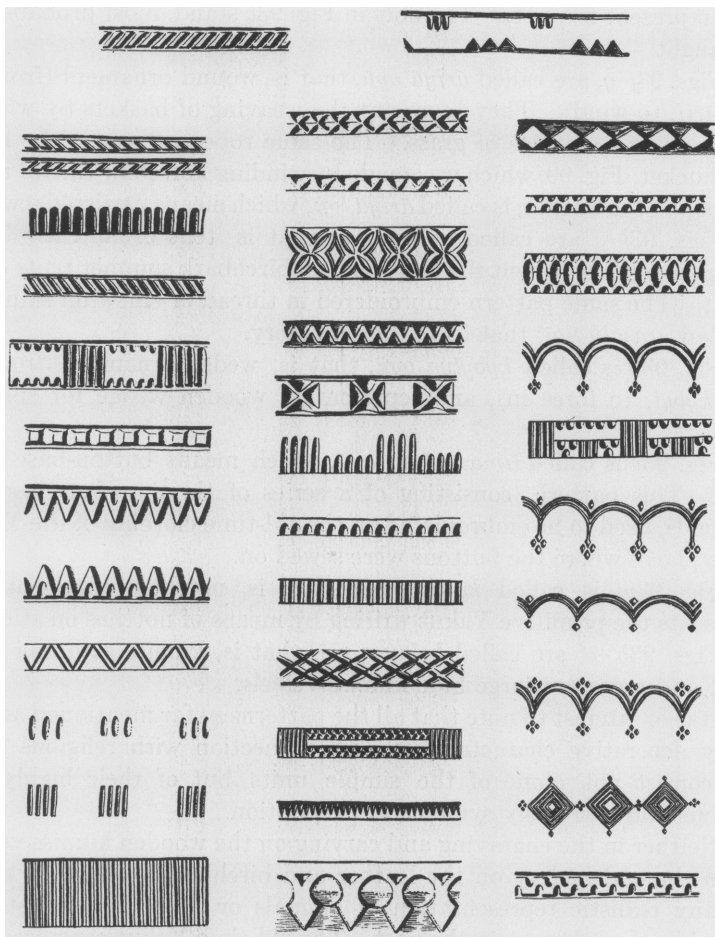


Fig. 94. Relief Carvings on Various Kumiss Vessels. The majority are variants of motives given in Fig. 93.

consider this to be a rather inartistic imitation of the carvings of the neighboring tribes.

The only attempt at realistic reproduction in the ornamentation of kumiss vessels is to be found in the carving of horses' hoofs. Thus the bases of the tripod goblets (Fig. 90) are often carved in the shape of horses' hoofs. The mouthpiece of the kumiss churning vessel often has the form of a horse's hoof (Fig. 95*b*). The base of a wooden stand for a



Fig. 95 *a* (70-9067), *b* (70-9266). Two Wooden Funnels for Kumiss Churns.

leather kumiss churn is also in the form of horses' hoofs (see Fig. 96). Even in conventionalized form we do not find the representation of an animal or human figure, not even that of a horse, which forms an object of their animal cult; but, judging from the Yakut names, we do meet with conventionalized representations of parts of the human body.

Thus Fig. 93*l* is called *tonohos oyū*, that is, vertebral ornament, and represents the spine or neck vertebra.

Fig. 93*o* is called *tyñyrax oyū*, which means nail ornament and represents human nails. Fig. 93*p*, is called *Tarbox oyū* which is finger

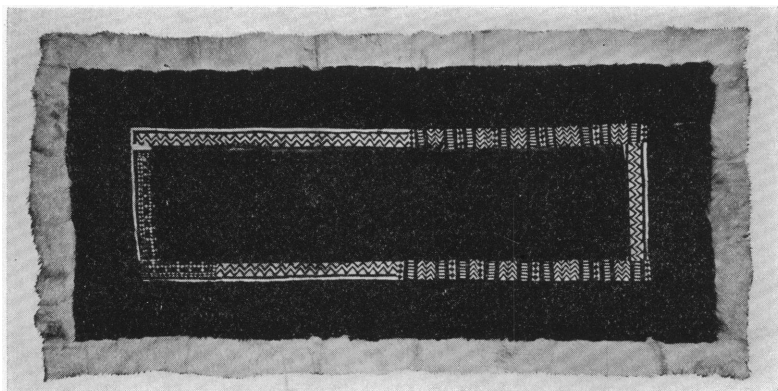
ornament, and is a conventionalization of the human finger. On birch-bark vessels we find the same motive embroidered in horsehair (see Fig. 98), and it is then called *tarhaxtȳ tigī*, which means finger embroidery. Among other birchbark techniques, Fig. 98a-e also shows the finger



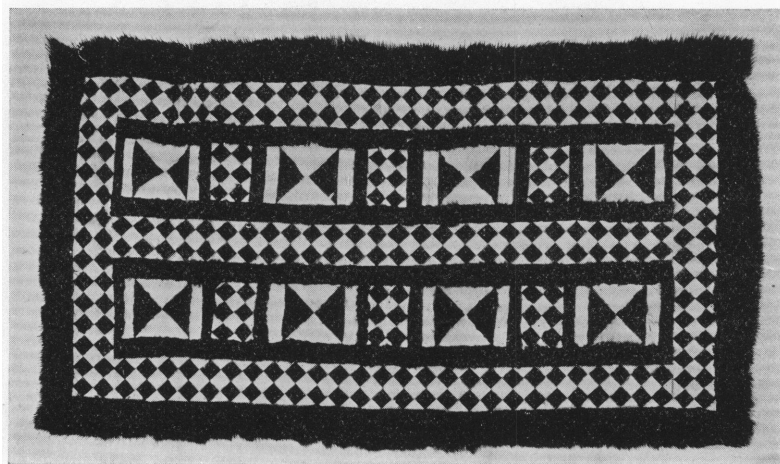
Fig. 96 (70-9267). A Kumiss Churn
on a Wooden Stand.

embroidery. It is likely that the nail and finger ornaments originated in work in pottery which is still preserved in a very primitive form.

Fig. 93u is an ornament copied by me from a Yakut clay pot, and is called *tyñyraxtax torduya*, which means nail-raising. But this pattern is



a



b

Fig. 97 *a* (70-9055), *b* (70-8929). Decorated Fur Rugs. *a*, Of cow, horse and coltskin; *b*, Of cow and horseskin.

impressed in the soft clay not with the nail, but with a wooden stamp called *küös oyülür mas*, meaning a stick (*mas*) for the ornamentation of clay pots (*küös*). Fig. 93*t* is also stamped on clay pots and is called *bültäghir torduya*, which means "rounded raising," but this pattern is also found on kumiss vessels.

There can also be found on kumiss vessels a pattern unillustrated called *tañalai oyū* (palate-ornament). It consists of small curves which represent the arch of the palate. It should be added that under this

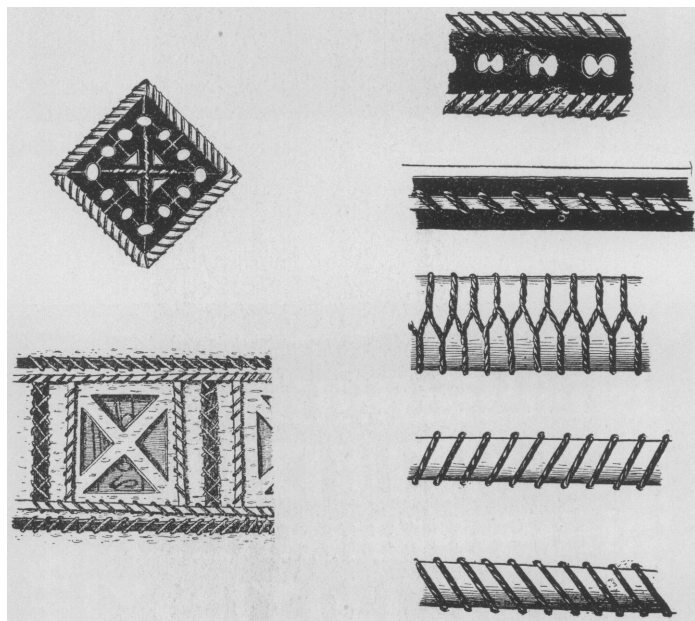


Fig. 98. Details of Embroidery and Sewing on Birchbark Vessels.

name (or *oncoho tañalai oyū*) is also known the decoration on small fur rugs made of alternating stripes of white and black horses' skins. (Fig. 97).

Figs. 93*q-s* are often seen engraved in or embroidered on kumiss vessels. They are called *sarbyn'n'ax oyū* (hanging ornament). This pattern is made with the concave face turned either downwards or upwards. In the first case it represents the hanging arch of the sky; in the second, a rope hung by its two ends. In a form similar to the latter it is also found on Western European Neolithic clay pots and was named *Schnurgehänge* by the German archaeologists, which name coincides with that of the Yakut.



Fig. 99 *a-c* (70-8619,9058,8807). Birchbark Boxes. *a* and *b*, Women's trinket boxes in which sewing materials and other implements are stored; *c*, A storage box for fur caps, boas, mittens, silver ornaments, and other treasured possessions.



Fig. 100 (70-8862). Birchbark Kumiss Bucket with "Finger-Embroidery."

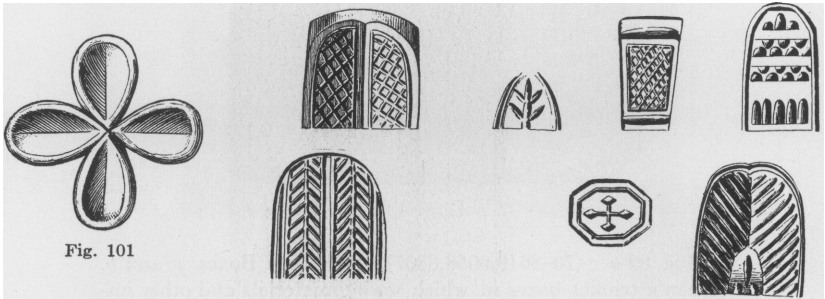


Fig. 101

Fig. 102

Fig. 101 (70-9065). A Cross Design on a Kumiss Churn Stick.

Fig. 102 (70-9206, 9260, 9060, 8713, 8884, 8869). Figures in Relief engraved on Kumiss Goblets. The motives represent conventionalized plants, vertebral ornaments, net ornaments, and a cross.

The kumiss goblets are usually decorated by engraving the pattern on the even surface of the vessel. But we also find patterns carved in relief; for instance, the net motive previously mentioned may be found in relief on the goblets shown in Fig. 91. Some patterns in relief (see Fig. 93k) have a common name, *tomtorgo oyū*, meaning simply relief ornament, and referring only to the style of carving, and not to the pattern meaning.

Figs. 93z-a', which include conventionalized plants, are called *usuor oyū*. The word *usuor* is borrowed from the Russian word *uzor* (in Polish *wzor*), which means pattern. The patterns too are evidently borrowed from Russian decorative motives.

In the same way, judging from the names, the linear ornaments of Fig. 93x-y—the first called *duobat oyū*, and the second *saxymat oyū*—must be regarded as borrowed from the Russian. *Duobat* is the old Russian word *doved* (at present *shashka*), which means the game of draughts; and *saxymat*, which is the Russian word *shakhmat*, means chess.

LEPROSY

Leprosy is very prevalent in Yakut Province, particularly in the Viliuisk and Kolymask districts. Of all Russia, Yakut Province leads in the distribution of this disease, there being one case of leprosy in every 2,800—a very high percentage. In Europe it has been estimated that there are one or two cases in every 10,000.

A few words may be added here on the history of leprosy. Egypt is regarded as its birthplace. Its distribution in Europe varies. England,

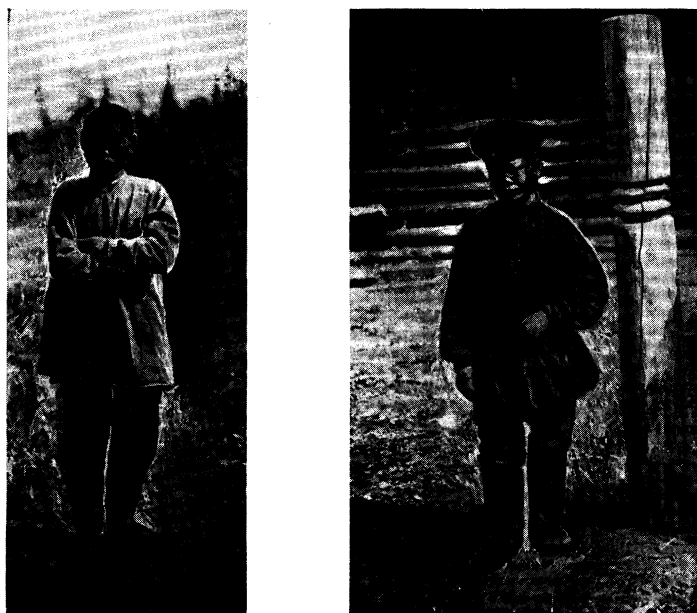


Fig. 103. Patients in the Leper House at Sredne Kolymsk.

Denmark, Holland, and Belgium are exempt. All other European countries are affected to different degrees. It is more widespread in Russia and the southern European countries than in the north. The essential cause of leprosy is still unknown. The lepra-bacillus was discovered in 1871 by the Norwegian scientist, Hansen. That leprosy may be contagious is now admitted by all medical authorities, but we do not know of any cases in which nurses or doctors attending leprosy people were affected by the disease. This may be explained by the preventive measures usually taken by the medical personnel. The hereditary trans-

mission of leprosy is at present denied, provided the child is separated from the afflicted parent. It is now also accepted that in its early stages, leprosy may be cured. There are two leper-houses in Yakutsk Province, in the districts of Viliuisk and Kolymask, which are isolated from the local population.

Fig. 103 shows two lepers, with the disease in an advanced stage, photographed by me in the leper-house of Sredne Kolymask. Their finger joints and toes have dropped off, leaving well healed stumps. Their faces (called lions' faces), their eye-lids, the lining of their mouths, noses, throats, and larynx (causing hoarseness) are covered with ulcers, deeply implicating the structure and function of the peripheral nervous system.

HISTORY OF CONTACT WITH RUSSIANS

The Yakut once lived in southern Cis-Baikalia and earlier, possibly, in the Sayan Mountains. Under pressure from the Mongol-Buryat, they wandered into the Lena Valley occupied by Tungus tribes, whom they forced to retreat from the valley into the mountains. These events which occurred in the thirteenth or fourteenth century of our era, naturally could not be recorded in the old Russian annals. Our information is based on oral traditions, preserved among the Yakut.

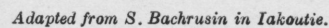
We have previously noted (see p. 64) that the Yakut were subjugated by two different Cossack parties from Mangasey and Yeniseisk. The Olekminsk fortress on the Lena River was erected in 1630 when only Tungus lived in the region. In 1637 a Cossack party, under the command of Busa, collected tribute in furs from the Yakut of the Yana River.

In 1638 the Cossack elder, Postnik Ivanov, with a party of twenty-seven men, left Yakutsk on horseback, crossed the Verkhoyansk Ridge and entered the valley of the upper course of the Yana River, meeting first Tungus, and later Yakut.

In 1641 a Cossack party, under the command of Stadukhin, journeyed to the northeast of Yakutsk and reached the tableland, Oimekon, on the upper course of the Indighirka River. There they met Reindeer Tungus and cattle-breeding Yakut and exacted fur tribute from them.

In 1675 there were in Olekminsk 206 tribute-paying Yakut and Tungus; forty years previously there were no Yakut in Olekminsk. On the Viliui River were three camps of Tungus and Yakut, totaling 1005 men; in Shigansk were 332 Yakut and Tungus; in Verkhoyansk 125 Yakut tax payers.

By 1620 a report had reached Tobolsk from the Mangaseya Cossacks of the Great (Lena) River and the Lena Yakut. In 1631 they descended by the Viliui River, a tributary of the Lena, to the Lena River and imposed tribute on the adjacent Yakut. In 1632 a party of Cossacks under the command of the Boyar's son, Shakhov, took tribute in fables from a clan of Viliui horse-breeding Yakut. The Viliui River farther up from its mouth was occupied by Tungus only. The northern boundary of the distribution of the Yakut at that time was the mouth of the Viliui. The whole Lena Valley from the mouth of the Viliui River to the south, at a distance of about 500 kilometers (or 310 miles) was occupied by Yakut. In their possession were also all the Lena islands of that region, rich in



pasture lands. There is no definite information as to how far inland they penetrated at that period. We may admit, however, that the Yakut, being horse and cattle breeders, were hardly inclined to move into the dense forests far from the majority of their tribesmen, i.e., far from the Lena Valley. In the beginning of the seventeenth century the Yakut abode on the western banks of the Lena must have been the territory of the two present *uluses*¹ of Yakutsk District, Namskij and Western Kangelassky. There, according to Yakut traditions, was the first place of refuge of their mythical forefather, the "Tatar" Elliei. From there a part of his nearest descendants could also have emigrated over the Lena islands to the eastern banks of the Lena River, where excellent pastures are as abundant as on the western banks.

At the time of the Russian invasions the Yakut were already the owners of the central part of the trans-Lena tableland. They had settlements on the tributaries of the Aldan River, the largest of the western tributaries of the Lena, and on the Amga River, a tributary of the Aldan. But the most populous locality appears to have been the western part of the Lena Valley between Tabaginsky Cape and the Kangelassky promontory. This valley is about 70 versts (46.2 miles) long and the bank ridge retreats from the river at a distance of from three to six versts (from two to four miles). Lake Saisary lies almost in the middle of this valley. This is the largest open plain encountered in Yakut territory with the densest population of horse and cattle breeders. The owners of this valley, the Kangelassky, constitute, according to all Yakut traditions, the most powerful group of clans. The Kangelas Toyon (prince, elder), Tygyn, is depicted in legends as their absolute ruler, although these clans were nominally considered as independent divisions.

In 1632 the Russian invaders erected a little fortress called Lesnoi Ostroshek, on the eastern bank of the Lena; ten years later they transferred it seventy kilometers to the south, where it became the center of the territory under the name of the City of Yakutsk. The fortress, now the City, of Olekminsk was erected by a Cossack party under the command of Buza in 1635. In the summer of 1637 Buza built two flat-bottomed ships, called *kocha*, and descended to the mouth of the Lena River, and traveled in an easterly direction on the Polar Sea. Not far from the mouth of the Omoloi River he was barred by ice and was compelled to abandon his ships. For three weeks his party walked over mountain ridges until they arrived at the upper reaches of the Yana River, where they met Yakut and took many sable skins from them as tribute.

¹For the meaning of the administrative divisions of *ulus*, *nasleg*, and clan see p. 47.

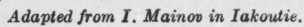
In 1639 Cossacks from Tomsk founded, at the mouth of the Maya River, where it flows into the Aldan, the Butalskoye Fortress and, proceeding over the passageway between the upper courses of the Maya River and Ulya River, they reached the shore of the Okhotsk Sea, where a fortress called Kossoi was soon erected, and later renamed Okhotsk. This conquest, which was carried out unsystematically and accom-



Fig. 105. A Blockhouse, the Remains of the Ancient Fortress built around the City of Yakutsk after the subjection of the Yakut by the Russian Cossacks.

panied by internal skirmishes among the conquerors, induced the Moscow Government in 1640 to establish a special administrative center on the Lena River at Yakutsk Fortress, which served as a base for the further development of Russian influence in eastern Siberia.

With the appointment of special governors (*voyevodas*) in Yakutsk further conquests were accomplished at much greater speed. In the



forties of the seventeenth century the Yakutsk Cossacks continued the discoveries of their predecessors on the shores of the Polar Sea and reached the Alaseya and Kolyma rivers. When the first attempts to proceed from the mouth of Kolyma farther to the east and to double the Chukchee Cape by sea failed, they went by land over the mountains, reached the Anadyr River, and from there Penshina Bay on the Okhotsk Sea.

In 1697-1698 the military expedition of Atlassov discovered the route to Kamchatka, but the final conquest of this country took place only after the suppression of the Kamchadal revolt in 1731. The conquest of the Chukchee country was not attempted by the Russians until the first half of the eighteenth century. At first the Chukchee not only successfully defended themselves, but at times took the offensive. In fact the Chukchee were not subjected to Russian rule until 1869.

In a southerly direction from Yakutsk Fortress the subjection of the Buryat on the upper course of the Lena was undertaken. These attempts met the stubborn resistance of the Mongols. However, with the foundation of the Verkholsk Fortress, the Russians began to dominate that country and soon the Cossacks, in their search for new lands, reached the shores of the Baikal Sea.

After the foundation of Yakutsk, attempts were made to proceed in a southeastern direction into the Amur Valley. But when the Nerchinsk Fortress was established by the Cossacks, the movement into the Amur Region from Yakutsk was halted.

The boundaries of the Lena District subject to the Yakut governors (*voyevodas*) in the seventeenth and the beginning of the eighteenth century may be generally defined as follows. They included the territories of the middle and lower courses of the Lena River and the whole country to the northeast of the Lena: to the north as far as the Polar Sea, to the east to the Pacific Ocean and Kamchatka (inclusive), and in a southeastern direction they reached the Dshugshur Mountain Ridge. The Lena District comprised the Chichniskoye and Olekminskoye Fortresses and the following settlements: Kharsinskoye, Ust-Potomskoye, Maiskoye, Tontorskoye, Sutalskoye, three Viliuiskiya, Shiganskoye and Olenskoye and the "distant" rivers: Yana with two settlements, Indighirka with three settlements, Alaseya with one settlement, Kolyma with three settlements, Anadyr with one settlement and, finally, the Okhotsk Fortress on the shore of the Okhotsk Sea.

The territory comprising the Yakutsk District was later subjected to numerous changes in its composition as well as in its administrative system.

In 1687 the Ilmsk district (*ouyesd*) which occupied the portage between the Lena and Yenissei Rivers, was added to Yakutsk, but Yakutsk continued to have a separate governor. The governmental reforms of Peter the Great (1708) again detached Ilmsk as a separate town. With the reorganization of the Siberian government in 1727, the independence of Ilmsk was again maintained. However, in 1775, with the division of the Irkutsk Government into provinces, the Ilmsk District was again included in Yakutsk Province, but soon after, in 1783, the Irkutsk Government was reorganized into a vice-royalty divided into three provinces, and Ilmsk, in accordance with this division, was separated from Yakutsk and ultimately annexed to Irkutsk Province.

In 1732, according to Bering's proposal, a coastal strip of land was cut from the Yakutsk District, and together with Kamchatka formed a separate Okhotsk District, which was reorganized in 1822 into a separate Primorskoye (coastal) Government. In 1849 the latter was abolished and the Okhotsk country was, for several years, again linked to Yakutsk Province, but in 1858 it was included in Primorskoye Province, which was formed of lands annexed from China.

Some changes have taken place in the southern borderland of Yakutsk Province. In the beginning of the twentieth century the Olekma-Vitimsky gold mining district was detached from it and joined to Irkutsk Province, but in 1922 the part of this territory to the north of the mouth of the Vitim River was again attached to Yakutsk Province, and called a republic. With this republic was included, on the extreme northwest, the corner formed by the Polar Sea and the Anabara and Khatanga Rivers.

Such were the most important changes in the composition of the Yakutsk territory from the seventeenth century to the present.

No less significant changes occurred in the administrative organization of the Yakut country. In the seventeenth century Yakutsk was the center of a great independent country directly subordinate to Moscow, although for some specific questions it was dependent on the governors of Tobolsk. In the time of Peter the Great, Yakutsk entered into the newly organized Siberian *Gubernyia* (government) and with the division of the Siberian government into provinces was included in Irkutsk Province. In 1775 Irkutsk Province was organized into a government and the Yakut country formed one of the provinces of the new government. In 1783 the government was again reorganized into a vice-royalty composed of four provinces, one of which was Yakutsk Province. In 1797 the vice-royalty was abolished and the government restored. In

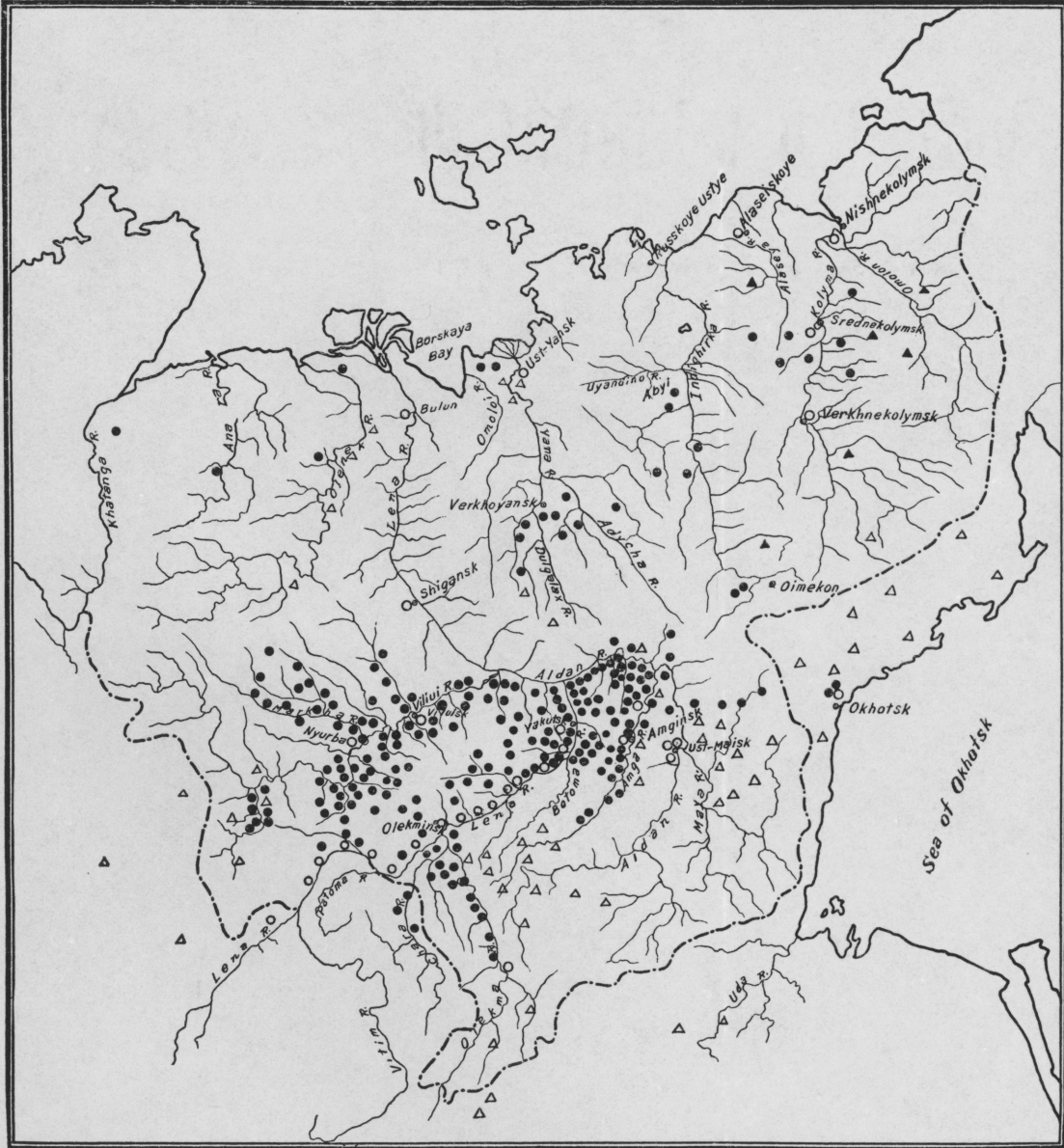


Fig. 107. Distribution of Tribes according to the Census of 1897

- Yakut
- △ Tungus
- ▲ Yukaghir
- Russian

Adapted from I. Mainov in *Iakoutie*.

1805 under the Emperor Alexander I, the Yakut country was made a separate province dependent upon Irkutsk. In 1852 the Yakut country was given a separate governor. After the revolution in February, 1917, a commissar was appointed by the Provisional Government. In 1919, after two years of bloody civil war, a Soviet regime was established and finally in 1922 the Yakut Country was proclaimed an Autonomous Republic.

