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MEN OUT OF ASIA; AS SEEN FROM THE NORTHWEST YUKON

RICHARD S. MACNEISH

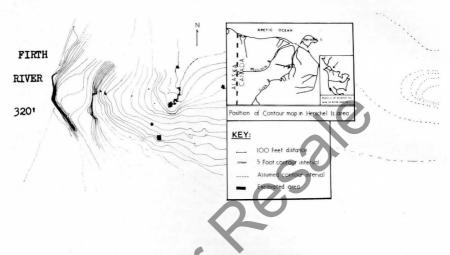
During the last ten years the National Museum of Canada has been undertaking archaeological survey and excavations in northwestern Canada in an attempt to elucidate some of the problems concerning the prehistoric peopling of the New World. This present paper is but an interim report of our activities and will be specifically concerned with one are (that seems to be particularly relevant to the problem we are investigating) that is, the Yukon Arctic coast.

During this time we have done considerable survey. In 1949 we worked in the Barren Lands, roughly from Great Bear Lake to Lake Athabaska (MacNeish, 1951). In 1950 work was done in the Upper Mackenzie and Liard; while in 1951 we visited the west end of Great Bear Lake and surveyed the Lower Mackenzie and part of the Peel River (MacNeish, 1953). In 1952 we again returned to Fort Liard (MacNeish, 1954) and the east end of Great Bear Lake (MacNeish, 1955). In 1954 reconnaissance was made of the Arctic coast adjacent to the mouth of the Mackenzie (MacNeish, 1956). In 1956 a little work was done around Cape Parry. In 1957 we confined our activities to the southern Yukon (MacNeish, in press), somewhat duplicating and extending the previous work done by Rainey (F. Rainey, personal communication), Johnson (F. Johnson, 1946), and Leechman (D. Leechman, personal communication). During the past season, 1958, we surveyed the entire length of the Firth River.

During this period it became apparent that one type of area which was unique to Canada and which had some relevance to the peopling of the New World were the relatively narrow passes that led from the Yukon Drainage across and through the Rockies. Starting from the west, we have the Rocky Mountain Trench; the Liard River; the Ross River—North Nahanni—Keele River Pass; the Canol Road; the Peel River; Rat Pass, and last, but not least, the Firth River.

The area we are going to talk about is the last-named one and includes the Yukon Arctic coast. Here we have found 122 archaeological components, about 60 of which are at one archaeological site on the Firth River. In surveying this region we first worked on the coast by whale-boat making occasional forays inland. The coast itself produced mainly what I would call Eskimo sites. During the last season we reconnoitered the complete pass from Old Crow Flats down the Firth River to the Arctic Ocean. This is an interesting area from the standpoint that one passes through a series of radically different ecological zones: from the forested Old Crow Flats, full of lakes and muskegs, through the eastern section of the rocky Brooks Range. Then through the western part of the higher British Mountain Range, which is heavily forested; then through the gorge cut through the Buckland Hills, which is part forested; and then out on the coastal plain itself, which is

treeless and relatively flat. In this latter terrain we were literally north of the Rockies (see map 1).



This was the area of our concentrated archaeological work and where is located our largest archaeological site, called by the almost unpronounceable name of Engigstciak (Eng-ig-she-yak) or in our site survey system, NiVk-1.

This site with its multiple components, was a very logical place to have been occupied. First of all, it had a small erosional remnant which can be used as a lookout for game (caribou). Secondly, it is, and was, at a permanent caribou (or herd) crossing, which provided excellent cover for hunters. Thirdly, it is only 15 miles from the tree-line and the widening of the river caused abundant driftwood to pile up in front of the site. Fourthly, it is just before the Firth River canyon where the numerous divisions of the Firth Delta coalesce and therefore was an excellent fishing spot. Also it is the western edge of the area of Laurentian glaciation, and, finally, it is a convenient distance from the present sea.

Looking at the map of the region which shows some of these inviting features (which are inviting in spite of the awful weather and climate) we also can see some of the geological features of the area. Dr. W. H. Mathews and Dr. J. Ross Mackay of the University of British Columbia have intensively studied the Pleistocene and recent geology of our mapped area. The last glacial advance just barely covered the site and cut two glacial spillways, one east and one west of the site, as well as laid down an esker just east of the site over

sea clays. The southern edge of this finger of the Laurentian glaciation covered the northern slopes of the Buckland Hills, while the Firth River flowed through its present channel and probably around the end of the glaciation. It appears that the weight of the ice depressed this coastal area and that as the ice retreated this land rose and became first a bay in the sea and then land. There are a number of beaches at different elevations evidencing this. Eventually the ice retreated totally away from the area and the land rose to above its present height. Then, during more recent times, a compensatory isostatic movement took place and, at the present, the coast is sinking.

The site itself is on a small eminence overlooking the Firth River, a sort of mesa, which in part is an erosional remnant, in part a beach terrace, in part a river terrace, and in part a dune. Most of the occupations seem to have taken place on the higher part of the eminence. Here we first put in a series of test excavations to determine areas of maximum artifactual and occupational deposits, then later, these preliminary tests were extended to become trenches. Still later, the geologists placed a series of test holes in the site to determine soil profiles and supplement our excavation profiles.

Their and our studies revealed a relatively complex stratigraphic situation. At the bottom we have clays covering the basic rock. Within these clays are remnants of what we call a muck layer that, along the peripheries of the hill connect with gravels and sand of an ancient beach. Overlying these mucks and beaches is further gray clay. This gray clay is definitely sea-deposited and the micro fossils in it reveal that the sea was at least 180 feet above its present level. On the southern slopes of the hill there were lensed sands. These sands seem to be basically windblown, perhaps from ocean beaches, that were occasionally tied down by the building of small humas layers that were in turn covered by sand again. Above these layers was a reddish sand, which is called humic sand, which is either a mature humus and/or windblown sands with considerable humic material in them. These in turn were capped with a humus layer, the bottom of which is quite clayish and the top of which contains considerable vegetable material.

These various layers contained different occupations. The earliest occupation was in the muck layers underneath the gray clay and is called British Mountain. This occurred mainly on top of the hill and though occasionally it was under grey and lensed sand, it was usually under clay, humic sand, and humas. Down the south slope the gray clays were extremely deep and were overlaid by a deposit of lensed sand. In the lensed sand were found the Flint Creek materials (in fact in three different superimposed zones of the lensed sand). Directly over these materials in the humic sand were New Mountain (Cape Denbighlike) materials, while in the upper part of the humic sands at the junction of the humus in the clayish part of that humus were Firth

River materials with Cordmarked and Fabric-impressed pottery and Denbigh-like artifacts.

Farther up, on top of the site, the Buckland Hills Phase with Dentate-stamped pottery was found in the humic sands over the previously-mentioned phases, while Joe Creek with Norton Linear (Oswalt, 1955) pottery occurred in the clayish part of the humic sands. In the actual humus itself or just at its bottom were three Eskimo phases, one with Norton Check-stamped pottery (Ibid.), called the Cliff Phase; one with Barrow Curvilinear-stamped pottery (Ibid.), called the Whitefish Station Phase; and, finally, the Herschel Island Phase with typically Thule Eskimo artifacts and St. Lawrence Plain pottery (Ibid.). (See Table 1.)

Now we shall briefly consider in more detail these nine archaeological complexes. The earliest, and the first in our series, is called the British Mountain Phase (see Plate I). It is represented by artifacts from thirteen patches of muck at Engigstciak and one deeply-buried site found in the survey. Stratigraphically at one place or another it underlies all of the following eight archaeological phases and always occurs in the mucks underneath the gray clays. Its stratigraphic position may be interpreted in two ways. One, that this is an old humus which was later covered by the sea when the sea was about 600 feet above its present level or the land about 600 feet deeper than it is at present or a little of both. The other possibility is that these sets of muck were formed by peculiar Arctic soil phenomena whereby there has been polygon cracking of the clays, filling of the cracks, and then solifluction flattening out these vertical cracks to where they become horizontal muck layers covered by solifluxed clay. As yet the geologists and I have reached no definite conclusion on which of these is correct but I think all of us have a slight tendency to favour the solifluxed theory.

Pollen analysis has revealed that the Arctic coast at British Mountain times was covered pine, spruce, and white (paper) birch forest. Though the dominant bone material was of caribou, there were also some bones of extinct buffalo and one possible jaw of a horse. All in all, these faunal and floral data reveal that the British Mountain people were living on the coast when it was a good deal warmer and possibly wetter than it is at present.

The artifacts number about 200 and belong to fur general classes. Class 1, which represents about 75% of the artifacts, are flakes with a small portion of their striking platform still adhering that have been struck from discoidal cores. There are a number of types of these tools which include side-scrapers, re-touched along one edge, both edges, one end, or notched to form spokeshaves, and ones that have been made pointed to form knives. Others are burins of the central or convex type. A few are hooked crescentic-like graving tools, while the rest are unifacial projectile points, either laurel-leaf in outline or lanceolate

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with slightly concave bases. The second class, which might possibly be blades, is represented by only three specimens, two prismatic blades, and one end-of-the-blade scraper. Whether these were struck from specific polyhedral cores or are accidental flakes from discoidal cores is difficult to say at this juncture of our study. The third group are thick or thin random flakes which have re-touching along one or both of their edges. The final group of tools are bifaces and consist of rude pebble choppers, multi-burins, and ovoid blades or projectile points, some of which have basal fluting or thinning on them.

Now let us turn to the relationship of these materials. It is immediately apparent that New World connections are difficult to find. However, when we look at the Siberian materials we do find some very specific resemblances. The earliest occurrences of these resemblances occur in the Buryet-Malta complex of the Trans-Baikal and perhaps it also accurs at the Chastino site of the Middle Lena. Here are also found tools struck from discoidal cores that includes unifacial points both lenticular (Bonch-Osmolovsky and Gromov, 1936, Plate 17, No. 3), and lanceolate (Ibid., Plate 17, No. 1), hooked gravers (Ibid., Plate 17, No. 7 and 8), scrapers (Ibid., Plate 17, No. 15, 4), and knives (Ibid., Plate 17, No. 5) and central convex-type burins (Ibid., Plate 17, No. 9). Besides these so-called Mousterian-type tools, there are end-of-the-blade scrapers (Ibid., Plate 17, No. 12) and blades (Ibid., Plate 17, No. 18) and pebble choppers. These are very specific resemblances and it is interesting to note that they occur in both the areas under discussion in the earliest horizons.

There is probably some gap in our sequence between this first British Mountain Phase and our second phase, called Flint Creek (see Plate II). Flint Creek is represented by nine components, only four of which were at Engigstciak and one of these seems to have three stages or sub-components in it. Stratigraphically three of these overlie our British Mountain materials and three of them underlie four of our later phases. No Flint Creek materials were found under either the Buckland or Whitefish Station phases. All the materials from Engigstciak occur in yellow or lensed sands overlying the gray sand and clay. The lensed sands seem to have been windblown deposits with small amounts of humus in them, which were later solifluxed. It has been suggested by the geologists, and somewhat confirmed by snails in the sand, that perhaps these people occupied Engigstciak when some of the lower ocean beaches were still active. Somewhat confirming this is the fact that three of our surveyed sites also appeared to be on high beaches.

A pollen examination revealed that the dominant plants were grasses, sedges, and a few willows. The animal bones show that they killed mainly (extinct?) buffalo, caribou, hare, and a few Arctic birds. This has been interpreted as indicating that the Flint Creek people occupied the area when it was colder and wetter than at present.

Artifacts number about 250 and bear little resemblance to those of the earlier phase and only a very slight resemblance to later phases on the Yukon Arctic coast. They include a series of bone or antler tools such as leisters, needles, awls, gorges, and spatula-like tools. There are also pebble pendants, bifacial knives, and slab pebble choppers. There are flake side-scrapers, large snub-nosed end-scrapers, and huge scraping planes, as well as end-of-the-blade scrapers and scale scrapers, often made from a large flat blade. One of the most numerous tools of this horizon is the rather large crude blades which are often retouched, which probably came from conical polyhedral cores. later stages of the phase there are some microblades, some of which may have come from tongue-shaped polyhedral cores. Perforators or gravers appear as well as a number of specialized flake burin types, the latter being slightly more numerous in the later phases than in the earlier. In one area in which was a buffalo kill there are a large number of projectile points or fragments thereof. In the earlier part of the phase the predominant form is lenticular though a few collaterally-flaked Milnesand-like points are present. In the later stage, Plainview-like and Angostura-like ones occur.

Now as to relationships. Though there are some obvious ones with the New World, which I will speak about in a moment, there are some resemblances with the late Paleolithic of Siberia, namely, Afontova and Verkholenskaya Gora in the Trans-Baikal and the Shishkino and Harma sites of the Middle Lena. These resemblances are very striking and include: tongue and conical cores (Okladnikov, 1953, Plate 8,9; Field & Prostov, 1937, Fig. 1, 6-7), blades (Ibid., Plate 11), often retouched, and a few microblades (Ibid.), end-of-the-blade scrapers (Field & Prostov, 1937, Fig. 1, 5; Bonch-Osmolovsky and Gromov, 1932, Plate 26, No. 12) and scale scrapers (Field & Prostov, 1937, Plate 26, No. 9) made from blades, snub-nosed end-scrapers (Field & Prostov, 1937, Plate 26, No. 4; Bonch-Osmolovsky and Gromov, 1953, 8d and 10a; Field & Prostov, 1937, Fig. 2), flake burins (Okladnikov, 1953, Plate II, No. e), gravers (Bonch-Osmolovsky and Gromov, 1936, No. 8), scraping planes (Okladnikov, 1953, 8d and 10a; Field & Prostov, 1937, Fig. 2), flake burins (Okladnikov, 1953, Plate II, No. e), gravers (Bonch-Osmolovsky and Gromov, 1936, Plate 26, No. 10), choppers (Field and Prostov, 1937, Fig. 2), pebble pendants (Bonch-Osmolovsky and Gromov, 1936, Plate 26, No. 2, 3), leisters (Ibid., Plate 26, No. 9), and awls (Okladnikov, 1953). Furthermore, at Verkholenskaya Gore there are lenticular bifaces and/or projectile points (Field & Prostov, 1937, No. 1-3). The Yuma chipping of the Flint Creek complex which appears late also, of course, has resemblances to Siberia but seemingly in much later horizons. It has also, of course, a resemblance to cultural manifestations farther south in North America as well as to J. Campbell's material from the Brooks Range. Rather recently I have seen materials from early Five Mile Rapids in Oregon that are very similar to Flint Creek.

If you will bear with me a moment, I would also like to point out that this Arctic coast culture has its most definite relationships to one in the northwest interior. It or something like it is very likely to have been ancestral to the Little Arm Complex of the southwest Yukon, which in turn is ancestral to the materials found at the Campus site and at Pointed Mountain. These sites, which probably existed in the temporal gap between Flint Creek and the Yukon Arctic coast and the new Cape Denbigh horizon, also have Asiatic resemblances in that they have Chi-Thos (Okladnikov, 1955b, Fig. 33), tongue-shaped polyhedral cores (Okladnikov, 1950, Plate 15, 16, 17), burins made on blades (Ibid., Fig. 17), notched (Ibid.), retouched (Ibid.), pointed (Ibid.), rounded (Ibid.), and square-end microblades (Ibid.) and asymmetrical triangular points (Ibid., Plate 15 and 17). These resemblances seem to be with pre-ceramic Neolithic materials of northeastern Siberia and have been pointed out by a number of authors since Nelson first referred to them when studying the Campus site remains.

The next cultural remains, called New Mountain (see Plate III) are perhaps the most numerous except for the Eskimo remains in this area. There were 16 components of this phase at Engigstciak represented by adequate samples of artifacts as well as five smaller sites in the interior. At one place or another New Mountain remains are over both Flint Creek and British Mountain and are underneath all the later remains except Whitefish Station. As far as Engigstciak is concerned they are usually in the pinkish humic sands.

A number of pollen samples associated with these cultural remains have been analysed and while the most abundant pollen is of grasses there are some of tamarack, fir, spruce, alder and willow. Dr. Terasmae of the Geological Survey, who analysed these remains, thought that perhaps at this time the area around Engigstciak was a grassy plain with trees in the valley flanks, that is, perhaps warmer than at present but very definitely drier. Faunal remains confirm this interpretation for besides the ever-present caribou bones there were a number of bones of modern plains buffalo, elk, and Rocky Mountain goat. Of perhaps great interest in the bone remains were four seal flippers, which would seem to indicate that while these people were basically tundra-adapted, they had at least begun to use some of the nearby abundant sea mammal food resources.

Now as to the artifacts, which numbered well over 1000. This is the heyday of the burins and there are at least three kinds of these neatly-chipped implements as well as a number of sub-types. Burins at this time not only seem to be used for splitting bone and cutting slots but also as the cores from which burin spalls were struck, and there are six kinds of burin spalls. It also is the heyday of the maximum kinds of side-blades. Fine microblades and blades were struck from cuboid, conical and, on rare occasions, tongue-shaped, cores. Some of these microblades were re-chipped unifacially to become side-blades while other side-blades were made from bifacially chipped flakes. They

are lenticular, half-moon, and rectangular in outline. Snub-nosed end-scrapers and side-scrapers occur as do a few bifacially chipped engraving tools. Arrow points are fairly numerous and usually bear ripple flaking and are lanceolate, lenticular, incipient stemmed, and triangular in outline. I say these are arrow points for we found a number of antler arrowshafts either round or triangular in cross-section. A few Agate Basin-like spear points occur and there are a number of other antler or bone tools including antler hammers, pointed antler flakers, fish gorges, and beamers. There are also a few fragments of large bifacial knives, Chi-Thos implements, chipped adzes, sinew stones and net sinkers.

Relationships of these remains to New World Arctic tundra cultures from Sarqaq of Greenland (Larsen and Meldgaard, 1958) to Cape Denbigh of Alaska (Giddings, 1951) are obvious but there are also as many similarities, though not quite so good, to materials in northeastern Siberia. The most obvious ones are with the limited Yakitikiveem materials (Krader, 1952) of the Chuchee Peninsula but most of the resemblances are with the earliest ceramic periods of the Neolithic and the Kolyma and Lena. A number of the burin types have been illustrated as being associated with Serovo-like early cultures of the Kolyma (Okladnikov, 1955, Plate 27,30). According to Okladnikov, the Denbighlike burins are particularly numerous in Neolithic sites east of the Kolyma (Cemehob, 1953, Plate 1). Cuboid cores (Okladnikov, 1953, Fig. 11) and microblades (Okladnikov, 1955, Plate 20,21) start in this early Neolithic in northeastern Siberia, while rectangular side-blades (Ibid., Plate 21) occur at the same time. Lenticular (Okladnikov, 1955b, Plate 22) and half-moon side-blades (Ibid.) seem to appear somewhat later, namely in the Bronze Age in northeastern Siberia. Small lenticular (Okladnikov, 1955b, Plate 17, No. 24, 25), lanceolate points (Ibid., No. 6), triangular points (Ibid., No. 1-5), and contracting stem points (Okladnikov, 1950, Plate 29) also begin at this time in Siberia as do the chipped adzes (Ibid., Plate 27), pointed antler flakers (Ibid., Plate 37, No. 3), antler hammers (Ibid., Plate 37, No. 6, 7), and fish gorges (Ibid., Plate 33, No. 3).: In fact, the main difference between the early Neolithic of Siberia and these New Mountain-like remains are that those in Siberia have pottery, usually net-impressed, which as yet has not been found in the New World Arctic.

These Denbigh-like remains seem to develop directly into ones that have fabric-impressed and cordmarked pottery, which I have called the Firth River Phase (see Plate IV). All nine of its components have been found at Engigstciak and, try as we might, we have been unable to find isolated components of this phase. These remains are usually in the humic sands and have been found over all of the three previous phases and underlie check-stamped, linear-stamped, and Eskimo remains in Engigstciak. Our floral and faunal material is less numerous but seems to be about the same as New Mountain times though a few more bones of muskox and a somewhat lesser number of buffalo, and no wapiti bones may mean that the climate was just a little bit cooler.

About 400 stone or bone artifacts occur along with 3,000 potsherds. Burins and burin spalls are much like Cape Denbigh though slightly less numerous and there is one new burin type, which is a somewhat cruder imitation of the earlier ones. Arrow and spear points are still similar but side or corner-notched ones occur for the first time. Sideblades and microblades and cores are the same except that rectangular side-blades seem to be absent. There are, also for the first time, a few flat or tabular polyhedral cores that last into later horizons. Disk scrapers, adzes, bifaces, plano-convex end-scrapers, net sinkers, prismatic arrows, fish gorges, and antler pointed flakers are the same as in the previous horizon. New tools consist of bifurcated-base atlatl points with or without side-blade slots, fish-hooks, and antler mattocks, shaman sucking tubes, delicate antler leisters, and some stemmed bone arrow-points. However, the greatest difference and most distinguishing feature of this culture is its pottery. The pottery is grit-tempered and thin, and fairly hard. It seems to have been made by the coiling method and later thinned by the paddle and anvil. Cordmarked and fabricimpressed sherds dominate though there are a few linear-stamped sherds in this horizon. Decoration is usually absent but a few of the cordmarked sherds show that there was a single row of exterior evenly-spaced punctates around the rim parallel to the lip. Rim sherds would seem to indicate that the vessels were cocoanut-shaped.

Relationships are with the early Neolithic of Siberia. The single photograph I was given by Okladnikov of the sherds from the Pomazkino site from the mouth of the Kolyma show an identical set of artifacts and sherds to those of the Firth River Phase. Somewhat less similar but still obviously related are the Early Uolaba (Okladnikov, 1946; Chard, 1956), Early Kullaty (Okladnikov, 1955) and Serovo (Okladnikov, 1950) remains from the Lena. The greatest resemblances are in the grit-tempered ceramics which have cordmarked (Tolstoy, 1958a, pp. 400, 406, 410), fabric (Tolstoy, 1958a, p. 406) and linear stamp (Tolstoy, 1958a, pp. 400, 406, 410) surface finish. Decorations are exterior punctates around the rim on cocoanut-like vessels with flattened thickened lips are also similar. Besides these similarities and some of the older ones, new ones appear. These are antler mattocks (Okladnikov, 1950, Fig. 28), net sinkers (Tolstoy, 1958b, p. 67, Table 1), adzes (Okladnikov, 1955, Fig. 18), small neatly-chipped flake burins (Ibid., Fig. 27, 30), and triangular and lenticular chipped arrowpoints (Okladnikov, 1955, Fig. 17), as well as a large number of contracting-stem ones (Okladnikov, 1950, Fig. 68).

These Firth River remains appear to develop into the rather poorly-defined Buckland Hills Phase (see Plate V). These have been found only at four rather small components at Engigstciak and are usually in humic sand. They are under Herschel Island and Whitefish Station remains and over British Mountain and Firth River remains. Faunal materials, which are relatively sparse, include the muskox, the grizzly bear, and caribou. The warmer climate animals seem to

be gone. Artifacts number about 150 though over 1000 sherds were found. Projectile points though sparse were similar except that straight-stemmed ones occur for the first time as do larger contracting-stemmed ones. Microblades from polyhedral cores are on the wane and seem to be being replaced by half-moon side-blades. Antler mattocks and antler hammers still occur along with such new traits as antler pendants and marrow gouges. A ground drill bit, chipped saws, and chipped flint drills are also new traits and the cruder flake burins are somewhat more important. The distinguishing feature, however, is the dentate-stamp pottery though we did find a few sherds of cordmark and linear stamp with these remains.

Resemblances to Asia seem to be in the late Neolithic and early Bronze Age and are not too numerous because of our somewhat limited sample. New resemblances would be the cruder chipped drills (Okladnikov, 1955b, Fig. 9), the flint saw (Okladnikov, 1950, Fig. 114), the straight-stemmed points (Ibid., Fig. 68), and the dentate-stamp pottery (Okladnikov, 1955, Fig. 46).

These remains are followed by a horizon which we know somewhat better, which we shall call Joe Creek (see Plate VI). It is represented by 12 components at Engigstciak and one isolated site found in our survey. It is over all the previous horizons and under later Eskimo remains. Pollen materials indicate the climate was somewhat cooler than at present with lots of caribou, a few muskox, grizzly bear, moose, and a few seal bones. Burins are on the wane and somewhat different from the previous horizons in that they are often ground on their surfaces or made from larger flat retouched flakes. There are also two like the Bec-de-flute type Giddings reported for Choris. Crescentic and half-moon side-blades are very definitely replacing microblades and blades, which do not occur in all components. Projectile points see a continuation of some of the earlier forms but in the main are stemmed. Arrowforeshafts of antler usually have bifurcated bases and there is a single male uni-barbed harpoon. There are also a couple of pieces of ground slate and scrapers, knives and adzes continue along with the natler mattocks. A few other distinguishing features include serrated arrowpoints and the predominance of linear stamped pottery though one or two pieces of check-stamped and dentate-stamp occur. The final traits are an antler spoon and a fragment of what appears to be a comb, as well as a sucking tube.

In terms of relationships, these materials are most similar to the Choris horizon (Giddings, 1957) of the Seward Peninsula of Alaska. However, some of the new traits that occur at this time period also appear for the first time in the Bronze Age of Siberia. These would include antler spoons (Okladnikov, 1955b, Fig. 53) and combs (Tolstoy, 1958b, Table 1), linear-stamp (Okladnikov, 1955b, Fig. 52) and checkstamp pottery (Ibid., Fig. 89), split-base arrows (Okladnikov, 1955, Fig. 45), bone sucking tubes (Tolstoy, 1958b, Table 1), ground slate knives (Okladnikov, 1955b, Plate II), uni-barbed bilateral male antler

harpoons (Okladnikov, 1055b, Fig. 24), and half-moon chipped side-blades (Okladnikov, 1955b, Fig. 22).

This somewhat completes our pre-Eskimo—and I use this word somewhat guardedly—archaeological remains. The final three horizons can be connected with the Eskimo horizons of Alaska, the earliest, which I call the Cliff Phase (see Plate VII) is represented by one component at Engigstciak and one surface site, and is extremely similar to the Norton (Griffin, 1953) and the Near Ipiutak complexes (Larsen and Rainey, 1948) of Alaska. Our sample is not large and consists of about 2000 check-stamp sherds and a few linear ones, as well as 50 chipped stone artifacts. Ground slate occurs as well as half-moon side-blades but no burins or microblades. Projectile points are the same as in the previous horizons as are the flat end-scrapers, beaked gravers, disk scrapers, saws, and large bifaces.

Whitefish Station is represented by three components, only one of which was at Engigstciak, and is relatively late Eskimo with open-socketed barbed harpoons, Barrow Curvilinear pottery, and the usual Eskimo remains (see Plate VII). The final culture is all over the Arctic coast as well as in the humus at Engigstciak and is called Herschel Island (45 components), and has typical Thule artifacts including crude St. Lawrence Plain pottery, close-socket harpoons, and so forth. It is represented by over 200 artifacts as well as about 500 very crumbly Eskimo potsherds (see Plate VIII, IX, X, XI).

Though we have a lot of material and nine sequential cultures from the Firth River, there is still more missing in the sequence than has been found. There is obviously a break in the continuity between British Mountain and Flint Creek and probably quite a big temporal gap. There also is a break in continuity between Flint Creek and New Mountain, with only a hint as to what fills this gap. New Mountain seems to be ancestral to Firth River. However our limited samples and poor stratigraphic provenience do not allow us to say whether there is a gap before and after Buckland Hills even though there are hints of continuity. Joe Creek does seem to be separated from Buckland Hills which precedes it and Cliff that follows it. There is a complete break and considerable gap between Cliff and Whitefish Station while Whitefish Station very obviously is ancestral to Herschel Island. Thus we have the broad outline or skeletal framework of the sequence of the area. However, most of the flesh is missing and many of the bones don't articulate too well.

In conclusion, starting at the simple level, it is readlly apparent that what is needed is a great deal more field work in northwestern North America and Northeast Asia. From my meagre experience it appears that many sites are there and fairly easy to find. All that is needed is to go up there and look in this vast area. In other words, I say to you archaeologists looking for an area of specialization which has important problems waiting to be solved, "Come on in—the water's fine (albeit a wee bit cool)."

Secondly, I hope I have shown that there are a large number (over 60) specialized early traits in common between northeast Siberia and northwest America. Furthermore, these traits appear in the two areas in roughly the same chronological order. I am sure that with more work even more traits will be found. I also hope that I have convinced you that these traits from the two areas are genetically connected and that there was a steady exchange from Siberia to America and vice versa. This exchange seems to have begun (to use the outmoded Russian temporal classification) in the Paleolithic and last up until the Iron Age or (to use an equally vague New World classification) from Paleo-Indian times to Eskimo times. On the basis of these conclusions, one cannot help but wonder if future work will not show that the area from east of the mountains of the Middle Lena to the mountains on the eastern and southern borders of the Yukon will not turn out to be a single culture area having these time periods.

Since we have pushed our data this far, let us go even farther with our interpretations. First is the problem of the peopling of the New World. The present picture from the Firth River and, I might add Alaska, seems to confirm the hypothesis stated so ably by Louis Giddings (Giddings, 1952), that is, there was a steady flow of traits and people back and forth across Bering Strait over a long time period that moved into the New World in a relatively haphazard manner, which in small part was determined by ecological and cultural limitations. To put it negatively, there were not Kulturkreis-like movements across Bering Strait of specific traditions, physical types, or linguistic stocks from Asia that then spread out along specific routes in the New World.

And finally, I would like to point out that the amount of specialization, differentiation, and development that took place in the New World—outside this hypothetical northeast Siberia—northwest America culture area—was probably complex and must not be underestimated. Thus the problem of Asiatic influences in the New World is not so much one of finding a series of traits or trait complexes from the more southerly American regions back to Siberia or vice versa but of discerning how this steady flow of traits (many of which have already been found in the Yukon and Alaska) and people, after the initial migration, were diffused and how, when, and where they combined with, influenced, stimulated, and sometimes disappeared in the existing New World culture complexes.

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National Museum of Canada Ottawa

PLATE I (1/2 natural size)

British Mountain Artifacts — 1-15

- 1- 3. British uniface ponts struck from prepared discoidal cores.
- 4- 5. Irish fluted types biface with basal fluting.
- British Mountain Central burin on a prepared flake. End-of-blade scraper.
 Spoke-shave like implement on a prepared flake.
 Prepared flakes with end retouched.
- 11.
- Prepared flakes with two sides retouched from opposite surfaces. Large rough flake retouched on edge. 12.
- 13.
- 14.
- Prepared flake retouched along all edges on dorsal surface. Prepared flake retouched on lateral edge on ventral surface.
- 15. Pebble chopper.

PLATE II (½ natural size)

Flint Creek Artifacts

- Flint Creek bifacial point, small variety. 1.
- 2- 3. Milnesand-like points.
- Angostura-like point. Plainview-like point. 4.
- 5.
- 6. Retouched notched blade. Tongue-shaped core. 7.
- Fine thick truncated microblade. 8.
- 9-10. Yukon multi-burin.
- 11. Fort Liard rectangular burin.
- 12-13. Scale-like end-scrapers (11 from a blade and 12 on a flake).
- 14. End-of-the blade scraper.
- 15. Snub-nosed end-scraper.
- 16. Thin flake with retouching along one edge.
- Thick flake with retouching along two edges. 17.
- 18-19. Flat pebble pendants.
- 20. Needle.
- 21. Spatula-like antler object.
- 22. Antler awl.
- 23. Barbed antler fish spear.
- 24. Scraping plane.
- 25. Flat pebble chopper.

PLATE III (1/2 natural size)

New Mountain Artifacts — 1-29.

- Agate Basin-like point. 1.
- 2. Denbigh lenticular arrow point with serrated edges.
- 3.
- Arctic lanceolate arrow point. New Mountain stemmed arrow point. 4.
- 5. Southampton triangular arrow (or harpoon?) point.
- 6. Whitefish contracting-stem arrow or drill tip.
- 7. Cuboid polyhedral core.
- 8. Conical polyhedral core.
- 9. Fine thin truncated microblade.
- 10. Notched half-moon side blade (lette). Rectangular bifacial side-blade.
- 11.
- 12. Half-moon side-blade.
- 13. Anaktuvik blade burin.
- Denbigh burins bevelled variety. Denbigh burins bevelled variety. 14.
- 15. 16. Snub-nosed secondary burin spall.
- 17.
- Denbigh burin central variety. Denbigh burin convex variety. 18.
- Denbigh burin multi-burin variety. 19.
- 20. Oblique-ended secondary burin spall.
- 21. Stemmed end-scraper or possible asymmetrical drill bit.
- 22 Small plano-convex end-scraper.
- 23. Flat-topped end-scraper.
- 24. Antler prismatic arrow.
- 25. bone beamer.
- Fish gorge. 26.
- 27. Pointed antler flaker.
- 28. Large bifacial knife.
- 29. Chi-Thos.

PLATE IV (1/2 natural size)

Firth River Artifacts

- 1- 2. Corner-notch (spear) points.
- 3. Denbigh lenticular arrow points.
- 4.
- Arctic lanceolate arrow points. Southampton triangular arrow points. 5.
- 6. Firth side-removed arrow points.
- 7. Half-moon side-blade.
- 8. Lenticular side-blade.
- 9. Fine prismatic microblade.
- 10. Tabular polyhedral core.
- 11. Buckland type burin.
- 12. Denbigh burin — bevelled variant.
- 13. Denbigh burin - convex variant,
- Oblique burin spall. 14.
- 15. Antler fish gorge. 16.
- Notched antler object.
- Stemmed bone point. 17.
- 18. Bifurcated-base (atlatl) point with flat tip and side-blade slot. Bifurcated-base (atlatl) point with end-blade slot.
- 19.
- 20. Long antler pointed flaker.
- Bone marrow gouge. 21.
- 22. Angled antler object.
- 23. Antler pendant.
- 24. Flat end-scraper.
- 25. Bifacial chipped disk.
- 26. Antler mattock.

MACNEISH] Men Out of Asia; As Seen from Northwest Yukon

- 28-29. Cord (or thong) wrapped paddle-impressed pottery.
- 30. Fabric (twined thongs) impressed pottery.
- 31. Bifacially chipped knife. 27.
 - Chipped adze blade.

PLATE V

(½ natural size)

Buckland Hills Artifacts -1-22.

- Agate Basin-like point.
- 2. New Mountain stemmed arrow point.
- 3. Whitefish pointed stem arrow point. 4.
 - Arctic lanceolate arrow point.
- 5. Herschel straight stem arrow point.
- 6. Half-moon side-blade.
- 7. Crude truncated microblade.
- 8. Retouched blade.
- 9. Buckland burin.
- Denbigh burin bevelled, 10.
- 11. Denbigh burin — convex.
- 12. Denbigh burin — convex.
- 13. Chipped drill bit.
- 14. Flake side-scraper.
 - Flat top end-scraper.
- 15. Plano-convex end-scraper.
 - Antler mattock.

16.

- 17. 18. Dentate malleated surface sherd.
- 19. Dentate stamp sherd.
- 20. Dentate stamp rim sherds.
- 21. Ground drill bit. 22.
 - Small bifacially chipped knife.

PLATE VI

(½ natural size)

Joe Creek Artifacts — 1-29. Large stemmed spear point. 1.

- 2. Arctic lanceolate arrow point.
- 3.
- Herschel straight stem arrow point. Whitefish pointed stem arrow point. 4.
- Serrated edge point. Ground slate (point?) 5. 6.
- 7.
 - Crude prismatic microblade.
- 8. Crude truncated blade.
- 9. Large side-blade. Small side-blade. 10.
- 11. Buckland burin.
- 12. Ground Sarqaq burin.
- 13. Denbigh burin — bevelled.
- 14. Buckland burin — Bec de Flute variety.
- 15. Antler mattock.
- 16.
 - Fish gorge.
- 17. Antler hammer.
- 18. Flat end-scraper. 19.
 - Bifacially chipped disk.
- 20. Sucking tube.
- 21. Comb (?)
- 22. Bifurcated-base arrow with slot for end-blade.
- 23. Antler spoon.
- 24. Antler harpoon.
- 25-27. Norton linear sherds.
- 28. Chipped adze.
- 29. Serrated edge saw or scraper.

PLATE VII

(1/2 natural size)

Cliff (top half) and Whitefish Station (bottom half) Artifacts — 1-14. Cliff.

- Leaf point. 1
- 2. Herschel stemmed arrow point.
- 3. Whitefish pointed stem arrow point.
- Serrated point.
- 5. Half-moon side-blade.
- Flat-topped end-scraper.
- 7- 8. Norton Check-stamp sherds.

Whitefish.

- Ground slate harpoon and blade.
- 10. Barrow curvilinear paddled sherd.
- 11. Whitefish pointed stem arrow.
- 12. Barrow curvilinear paddled rim sherd.
- 13. Unbarbed antler arrow.
- 14. Open-socket harpoon.

PLATE VIII

(1/3 natural size)

Herschel Island Articaft .

Whole pot of Thule Fibre-tempered Ware, excavated in a trash heap south of House 1 at NiTp 1.

PLATE IX

½ natural size)

Hershel Island Artifacts

- Large flint bifacial blade.
- Small flint bifacial blade. Small flint bifacial blade. 2.
- 3.
- 4. Chipped slate bifacial blade,
- Chipped arrow point. Chipped lance point. Chipped lance point. 5.
- 6.
- 7.
- Chipped drill. 8.
- Chipped tear-drop shaped object. 9.
- 10. Chipped arrow point.
- 11. Flat adze head.
- 12. Ground stone arrow-straightener.
- Bolo stone. 13.
- 14. Chisel-like abrader.
- Grooved pebble line sinker. 15.
- Grooved pebble line sinker. 16.
- 17. Grooved pebble line sinker.
- Ground slate harpoon blade with concave base. 18.
- 19. Ground slate harpoon blade with convex base.
- Ground slate lance head. 20.
- Ground slate lance head. 21.
- 22. Ground slate chisel or end-scraper.
- 23. Long adze blade.
- 24. Ground slate man's knife.
- Ground slate man's knife. 25.
- Ground slate pie-shaped ulu. 26.
- 27. A ground slate stemmed ulu.

PLATE X

(½ natural size)

Herschel Island Artifacts — 1-38.

- Unibarbed bilateral bone arrow point. 1.
- 2. Quadri-barbed bilateral bone arrow point.
- 3. Tri-barbed unilateral bone arrow point.
- 4.
- Bi-barbed unilateral bone arrow point. Unibarbed unilateral bone arrow point. 5.
- Unibarbed unilateral bone arrow point with insert slot. 6.
- 7. Barbless bone arrow point.
- 8. Pointed base bone arrow bunt.
- Decorated pointed base bone arrow bunt. 9.
- 10. Bifurcated base decorated bone arrow bunt.
- 11. Bifurcated base bone arrow bunt.
- 12. Hollow-base bone arrow bunt.
- 13. Tri-barbed unilateral bone leister prong.
- 14. Tri-barbed unilateral bone leister prong.
- Quadri-barbed unilateral bone leister prong. 15.
- 16. Five-barbed unilateral bone leister prong.
- 17. Unibarbed bilateral bone leister prong.
- 18. Bone man's knife handle.
- 19. Thule type IV-A bone harpoon head,
- 20. Thule Type III bone harpoon head.
- 21. Thule type I bone harpoon head.
- 22. Thule type II bone harpoon head.
- 23. Thule type IV bone harpoon head,
- 24. Stone lip plug.
- Bone lip plug 25.
- 26. Stone lip plug.
- 27. Bone box top.
- 28. Bone wedge.
- 29. T-shaped knife or scraper handle.
- 30. Scraper handle with a gouged hole.
- 31. Bone sucking tube.
- 32. Bone bead.
- 33. Bone spoon. 34. Bone wound plug.
- Bone wound plug or needle. 35.
- 36. Bone comb.
- 37. Bone fish-hook.
- 38. Bone snow goggle visor.

PLATE XI

(½ natural size)

Herschel Island Artifacts — 1-11.

- Bone snow shovel blade. 1.
- 2. Bone net spacer.
- Bone arrow straightener. 3.
- 4. Bone arrow straightener or thong stretcher.
- Bone adze socket. 5.
- Bone snow-knife handle. 6.
- Bone ice pick. 7.
- 8. Bone beamer.
- Bone whip handle. 9.
- 10. Bone mattock head.
- 11. Bone adze handle

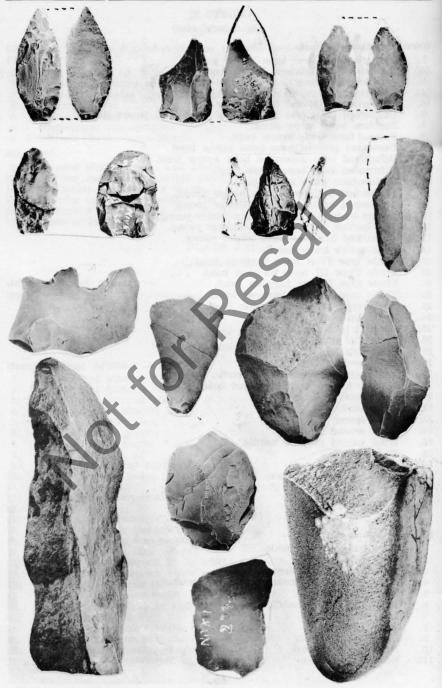


PLATE I

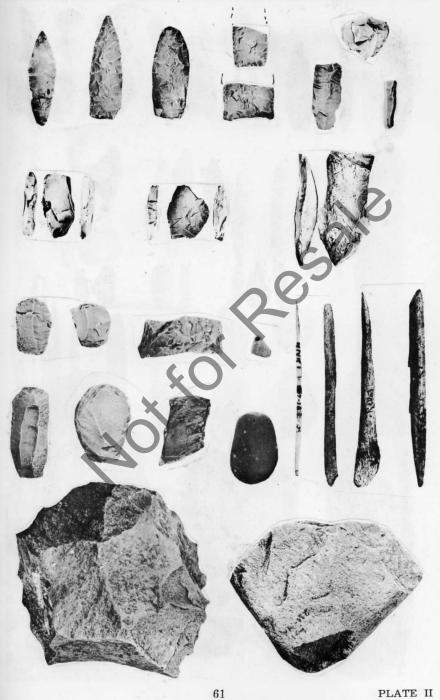


PLATE II

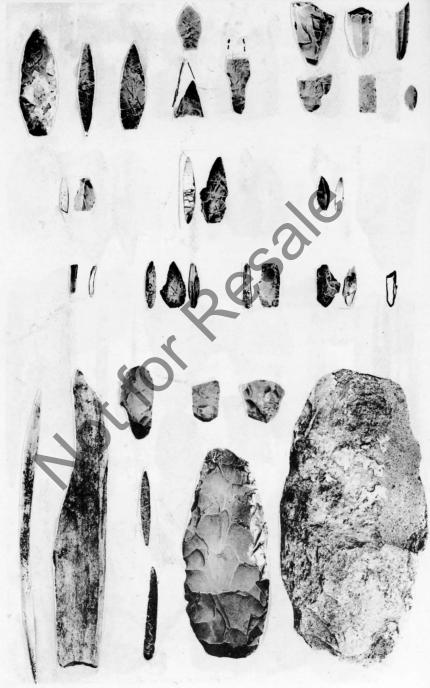
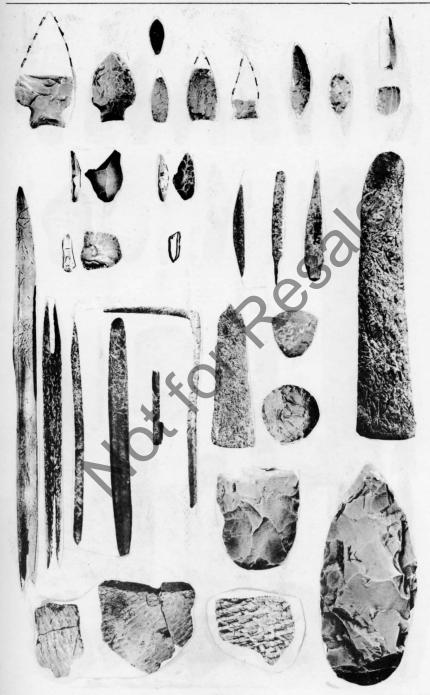


PLATE III



63

PLATE IV



PLATE V

64

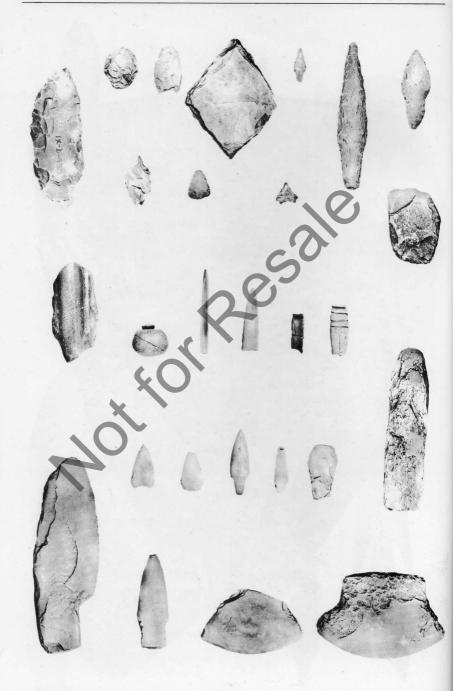


PLATE VI



PLATE VII









TRANSLATION OF I. K. VOBLOV'S "ESKIMO CEREMONIES" 1

CHARLES CAMPBELL HUGHES

The Eskimo inhabit an extensive territory along the shore of the Bering Sea—from Cape Dezhnev to Cross Bay. The main part of the Eskimo group is concentrated in the Chukotsky region of the Chukotsky National District. The principal occupation of the Eskimo is maritime hunting and pursuit of the fur trade.

During the years of Soviet power, the Eskimo economy and way of life have changed beyond all recognition. At the present time all the Eskimo are formed into comradeships and artels (collectives). These collectives are equipped with modern native techniques of the fur trade—motor schooners and whaleboats, whale guns, and rifles.

Eskimo settlements have electrification. In dwellings, the Eskimo blubber lamp has been replaced by the electric light, and into the Eskimo way of life the wash stand, soap, towels, bedsteads, bedding, dinner tables, and the tea set have firmly entered. Clothing of local style from reindeer and seal skins has been replaced by European clothing.

In the beginning and high schools one hundred Eskimo teachers are studying. In these schools the Eskimo work with teachers who have received special pedagogical education in the Anadyr pedagogical college and institutions of higher education in Leningrad. Only under Soviet rule was a writing system worked out. Through the direct participation of the Eskimo intelligentsia, educational, political, and artistic literature is being published in the Eskimo language. Instruction of children in the first and second classes is conducted in the native Eskimo language.

In the first ranks of the Soviet intelligensia of the Chukotsky National District are the leading party members and Soviet worker-Eskimos, and also the schooner captains, the radio operators, and medical and other workers.

Soviet medical institutions have driven out the shaman with his charlatan methods of "treatment". Socialist culture firmly enters into the Eskimo way of life and is a powerful stimulus to the development of their national culture. Changes in the area of economics and the way of life of the Eskimo, coming about as a result of the victory of Socialism in the U.S.S.R., have led to the breaking up and liquidation of primitive customs and beliefs.

Although Eskimo ceremonies still continue to exist here and there, at the present time they are conducted only by isolated individuals of the older generation. Many elements existing earlier in the ceremonies have disappeared, for example, the carrying of the whaleboat to the shore before the beginning of hunting, the offering of dogs in sacrifice

(Ed. note: Due to their unusual length in both cases, footnotes appear at the close of this and the article which follows.)

to the "spirits", and many others. The shamans have ceased their activity. Ceremonies have thus lost their fundamental significance even in those Eskimo families which by tradition still conduct them.

These materials on Eskimo ceremonies and rites were collected by the author [i.e., I. K. Voblov] in 1934-36 with the active help of the Eskimo—primary teachers of the Chukotsky regional seven-year school of the Chukotsky Cultural Station² of Lawrence Bay, checked and made more exact in the Eskimo villages of Chaplino and Serenek.³

The Rite Atigak

(The First Launching of the Boat on the Ice, or the ceremony of the beginning of hunting. It occurs on several different days at the end of May or the beginning of June.)

Early in the morning, when only the first rays of the cold northern sun are awake, the Eskimo begin preparation for the ceremony. The owner of the whaleboat (or baidara) together with a group of hunters carries the boat to the shore.⁴

In the house the wife cooks reindeer meat and flat cakes baked from flour (kakak), and prepares different roots, grasses, and other foods.

Having finished the preparation, all the members of the family set about painting their faces. With black dye from stone (graphite) or with soot from the blubber lamp, the men and women draw lines along both sides of their noses, under their eyes, to the end of their lower lips, and a few lines on their chins—to the lower part of the lower lip. The particular pattern of the lines on the face depends on which sea animal "will bring good fortune" to the given family-walrus, seal, mukluk seal, whale, killer whale, etc., (in this particular case, the family painted their faces for the walrus). After this all members of the family don white ceremonial rain clothing.5 With reindeer sinew the wife fastens some long reindeer hair to the hood of her parka (the long hair from under the neck of the reindeer-which is a sign of good fortune in the home). Having finished dressing, the head of the family takes the special stick with which he strikes his drum only on ceremonial days, a shallow wooden cup filled with the best foodsboiled reindeer meat and grass kubukhsi (this grass was saved until the ceremony in a seal skin "poke" along with seal blubber), and he sets out with his wife toward the place where the whaleboat or baidara had been taken that morning. Following him only the old men and women of that particular settlement and nearby villages go to the shore, if they are present at that time. As a rule these participants in the ceremony are the near and distant kin of the owner of the whaleboat and his wife. Reaching the boat, the celebrant places down in its bottom the cup with the food which he has brought, takes a piece of meat from it, and puts the latter on the seat of the whaleboat and slices it into small pieces. Some of the pieces he sticks to the bow Hughes]

of the whaleboat on the inside in such a fashion that birds cannot reach them. The remaining pieces he throws into the air and sea. Into the air—to feed the spirit Kiakhnik; into the sea—to feed "the mistress of sea animals".

Having finished the "feeding" of the gods, the celebrant sets about making the sacrificial gifts. If he has sufficient dogs, he kills one of these and distributes the meat to the sea and air. If his dogs are few, then he "slaughters a dog" made of grass.⁶

While the celebrant feeds the gods, his wife makes a bonfire near the whaleboat. The celebrant throws the pieces of meat into the fire—"feeding the god"—the keeper of the fire. Having finished the feeding ceremony, the celebrant and his wife with the remaining food entertain the old men and women who had been patiently awaiting the end of the ceremony.

Everybody returns to the living quarters, where the celebrant continues to entertain those present with all the things that had been prepared for the ceremony. The celebrant then throws out into the sea or onto the earth all that remains—let the gods not think that he is keeping anything from them. He fed them before feeding the people, and the remaining food he also is returning to them.

At this the ceremony comes to a close. It has lasted nearly two hours.

After the ritual, if the weather on the sea is fair, that is, with no storms, the celebrant together with his crew goes out hunting seals. Only after the ceremony can one begin hunting in the early spring. Not having fed all the spirits, to go out onto the sea is impossible—the gods are offended and do not wish for good luck. The spirits would drive away all the sea animals from the "evil" hunter who departs from the established rule.

There are several whaleboats and baidaras in the villages. But it is possible to celebrate only in proper turn—altogether only one whaleboat owner each day.

The Rite Naskunikhkilik

(The Ceremony of the Tusks. Conducted on various days in June. In this period walrus hunting far from the shore comes to an end, because storms are beginning.)

Long before the approach of the ceremony the celebrant sets about preparing reindeer meat, dried ducks, fish, sugar, tobacco, edible grasses and roots (*kubukhsi*, *suklak*), inner reindeer fat in a poke, and from 1 to 100 walrus heads, that is, as many walruses as were killed during the hunting season.

Before the day of the ceremony, one or another of the family members gathers sea cabbage ("tear cabbage") from the shore. At

daybreak on the day of the ceremony, members of the family dress themselves and paint their faces in the same way as in the ceremony *Atigak*. For 1-2 days before the beginning of the ritual, a ceremonial pole some 5 meters in length is fastened to the back wall of the house.

At dawn, the celebrant leaves the house in festival clothing. Solemnly he goes around the house (moving with the sun) to the place where the pole stands. Carefully he takes it, returns to the house and stands the pole in the center of the living room in such a fashion that one end of it sticks out through the junction of poles which compose the inner roof of the house. With the fixing of the pole the ceremony begins. Regretfully, the author was not able to establish the symbolism of this ceremonial pole.

The celebrant then takes a ceremonial wooden dipper and rattle, and together with his wife or son sets off toward the sea shore. There he scoops up water into the dipper and in his outstretched hands he solemnly takes it home. He pours the water into the inner corners of the entrances to the house⁸ and in a strict pattern together with all the members of his family he spreads out on the floor all the things that had been stored away for the ceremony.

Near the pole they place the special ceremonial blubber lamp, burning along both sides. From one side of the pole in a half-circle are put the walrus heads (until the time of the ceremony no one must touch them), and on the heads they place pieces of walrus liver. From each side of the pole in a half circle are placed ducks, fish, and sea cabbage. In the space between the heads and the cabbage (on the bed-curtain side of the living quarters) they put the grass (kubukhsi), mixed with blood and fat from sea mammals, edible roots, tobacco, sugar, flat cakes or hardtack, and reindeer meat. Such an arrangement of foodstuffs is dictated by the way the food was procured; all that is gotten from the sea is placed on one side, and all that is taken from the land on the other.

Then the celebrant closes the doors, so that dogs cannot enter the house. He takes his drum, and, striking it, begins to sing. At the end of the song (a wordless song⁹) he shouts out strongly and slowly: "Go-go-go-go-go-go!"¹⁰

The final shouts of the celebrant simultaneously serves as a signal for the neighbors (relatives), who after a while come as guests. The celebrant hands the drum to the first arrival (a relative). The guest sings, accompanying himself on the drum. All the other guests, in order of their arrival, perform in the same way as the first had done. The guests also sing without words, mentally "helping the celebrant call together the good spirits" and wishing good fortune for the home.

During the time of the guests' songs the celebrant still is shouting, "Ogo-go-go-go!" but with greater strength than the first time. This shout is a signal of invitation for the shaman, who immediately appears.

The shaman takes the drum from the celebrant and, striking it, slowly begins a song. At first he sings without words, but in meditation he is inviting his own spirits into the house.¹¹

Into the house "come the spirits". They enter the shaman, and he "turns himself into the spirit". Now the shaman during his singing points out to the celebrant how long life will follow him: he says that perhaps the celebrant will be a fine hunter and kill a whale; but on the other hand perhaps this will not be. Even worse, maybe the hunter will find himself in misfortune and tragedy. "I do not believe," says (sings) the shaman, "that this will happen to you, because just now several spirits have come to me, both good and evil. They tell me of many things."

At the end of his singing the shaman says, "So that no misfortune will come to your house, kill a dog and distribute the meat to the spirits of the air." After the shaman's departure, the guests with the drum sing silently to themselves, wishing good hunting and good fortune at home for the celebrant. Having finished the singing, all the guests turn to look at the celebrant. He solemnly goes up to one of the walrus heads and places his foot on it ("so that no one will be sick"). The he cuts off pieces from all the things that are lying around the pole, places them in the wooden ceremonial dipper and sets out with his wife or son to the sea shore. There he throws them into the sea and into the air with these words: "Here gather and take of this." He returns home, a second time cuts pieces from the food, places these in the dipper, takes the rattle and goes around the house from the east to the west. He goes to the place where until the ceremony the pole had been standing, pauses, and throws pieces to several sides. He lifts the dipper in the direction of the sunrise and shouts slowly and loudly: "Ogo-go-go-go-go-go!" He returns to the house again according to the direction of the sun's movement. (During the ceremony, the celebrant had invited unto himself the mightiest of spirits—the spirit of the sun, giver of warmth, light and life.)

At this time his wife builds a bonfire near the ceremonial pole. The celebrant for the third time cuts pieces from all the food and throws them into the fire with these words: "Gather here all of you (spirits) and partake of this."

Having finished feeding the spirits of the fire, he takes the fire on a flat piece of iron or steel (formerly on a wide bone from a sea mammal) and slowly moves toward the door, where he instantly hurls it out into the street. At that moment all those present at the ceremony pound on the walls and shout: "Now let there be no evil spirits, now will here be no sickness." (During the time that the celebrant, the guests, and the shaman had been singing, and also during the feeding of the spirits in the house, the "evil spirits", who can bring sickness and misfortune, and come in together with the "good spirits". Because of this it was necessary to drive them out.)

After the banishing of the evil spirits from the house, the celebrant entertains all those present.

The old women from neighboring houses, among whom are a number of relatives of the celebrant and his wife, had come with large empty bowls. They give these to the eldest of all the old women. She equally divides the ceremonial treats, except for the walrus heads.

At the same time the ceremonial dancing is beginning in the house. Having received their gifts, the old people who wish to do so remain to see the dancing. Others go home. The dance goes on to the accompanyment of the drum (either one or several instruments) and the shouts of the audience.¹² The official part of the ceremony begins with the end of the dances. The celebrant starts to act upon the shaman's orders—he kills a dog and "scatters" the meat to the spirits. Then the walrus heads are carried out into the street, the meat is cut off from them, and the bones are smashed with a mattock (formerly they were broken with stones). The celebrant himself then keeps the walrus tusks.¹³ The brains and meat are divided among the celebrant and the crew hunting in his whaleboat.

Upon completion of this act of sharing, the celebrant brings the ceremonial pole out of the house and places it in the ground on the rear side of the structure. After a few days a reindeer skin is tied to the pole with reindeer sinew and it is stood in its usual place. Now it is possible to begin hunting close to the shore for walruses, mukluk seals, and seals.

The Rite Akhisakhmuk

(Feeding the Dead. Carried out on various dates in September or the beginning of October.)

The ceremony coincides with the end of bartering between the Eskimo and the nomadic Chuckchi. To the Chuckchi the Eskimo take sea mammal fat for blubber lamps, mukluk seal skins for summer boots, walrus skins for thongs, ready-made boots sewn from skins of maritime animals, tea, sugar, cartridges, rain clothing sewn from intestines of sea animals, and other things. In return they receive from the Chuckchi reindeer meat, reindeer skins for sleeping bags and winter clothing, insoles for winter boots, reindeer sinews for thread, and other things.

Upon returning from the barter, the Eskimo set about the "feeding" of their deceased relatives. Early in the morning they boil reindeer meat. They put pieces of boiled meat in the cup (of wood or iron) which has been mentioned before. In it already they had placed dried fish. Thus, for the "feeding" of the dead the main nourishing foods are used. All this they roll up in a rain parka, tie it with straps into a sort of rucksack, put it on their back, and set off for the burial ground. This is found a short distance from the settlement (not over 1 km.). It is a cemetery in our terms but not in the Eskimo's, for

because of the eternally frozen ground, the Eskimo (as well as the Chuckchi) cannot bury their dead in a grave. They place the corpse on the surface of the ground, sometimes covering it with stones. In any case, at its head is always placed a large stone in order that the body can easily be distinguished and as a symbol of longevity. Sometimes the bones of the dead people are kept intact by this device; other times not, but the stone is invariably found in the same place. At the time of the ceremony, the celebrants remove the stone ("grave stone") and in its place they build a fire. They cut small pieces from the meat and fish which have been brought, and on the gravestone they cut these into even smaller pieces and throw them into the fire. At that point, the person who throws the food into the fire intones: "Gather here all (spirits), here take of food."

Having finished the feeding of spirits, all those present begin their meal. All that was brought by them from the house is eaten. 14 They throw the reindeer bones into the fire. The oldest relative of the dead people (father, grandfather, etc.) stands on one side of the fire, and all the other people stand on the other. The oldest one takes dead coals from the fire and with them daubs each one present with these words: "Now all sickness will leave here." The gravestone is put in its former place and everybodys returns home. Before leaving the burial ground everyone must take away with him his shade or ghost. 15 The shade is able to appear in the form of a blade of grass, a thin wand, or a stone. Everybody "takes his own shade" from the cemetery to the living room and there throws it out. Then there is no longer any danger. The living people never stay in the cemetery by themselves. All go home—both the man and his shade.

With the return home, the ceremony of "Feeding the Dead" ends.

The Rite Attigak

(In Preparation for Whale Hunting. It occurs on a number of days of November and lasts from one to two hours.)

Long before the ceremony (i.e., at the end of the previous year's whale hunting), the Eskimo store up pieces of meat from various parts of the body of the whale—from the nose, navel, fins, and tail. All these pieces are fastened to a thong beginning with the tail pieces, then those of the navel, fins, and head. Above the head is tied a small bag sewn of walrus skin in which the "food" for the whale is saved. In this fashion, it is assumed that the entire whale is thereby tied to the thong.

For the ceremony the following foods are prepared: reindeer meat, roots, grasses, sugar, tobacco, and others.

Early in the morning the celebrant (i.e., the owner of the whaleboat) together with his crew paints a silhouette of a whale on the sides of the boat. Into the whaleboat they put the hunting equipment—harpoons, whalegun, Winchesters¹⁶ and other things, and they carry the whaleboat to the shore.

Everybody then returns to the settlement. The celebrant dresses in a white rain parka, and paints his face in imitation of the whale (by drawing a few lines on his cheek and chin). Then the other members of his family also do this. They then pick up the food that had been prepared and everybody carries it to the whaleboat on the shore. Following that, they go around the whaleboat in the direction of the sun and stop on the side which faces the sea.

At the shore, all the old men and women of the village gather at the place where the ceremony is being held. The celebrant and his wife lift up into the air the dishes with the foods that had been brought and in a whisper they invite the spirits of the sea "to exchange" a whale for this food. Having finished "the exchange", the celebrant with his wife go nearer the water. Here he "kills a dog" which had been fashioned out of grass (or kills a real dog if he has enough of them) and throws the clotted blood into the sea. He also throws into the sea pieces from all the foods that had been brought.

Having finished the "feeding" of the spirits of the sea, the celebrant returns to the whaleboat, cuts off pieces of reindeer meat, and with these rubs the outside of the bow of the boat (representing by this an exchange of reindeer for whale). On the inside of the whaleboat he sticks pieces of meat in order to call into the boat the master of the sea—the whale.

Then the celebrant proceeds to the main part of the ceremony—"the feeding" of the whale. With the meat he rubs each part of the whale that is tied to the thong, and into the small bag he puts pieces of meat so that the whale can "feed himself" at any time.

On that the ceremony ends. The food that was brought is given out to the old men and women, and everybody eats there. Except for the celebrant, all return to the village. At this time hunters from the village (the whaleboat crew) immediately go to the shore and set out on the sea after whales. Usually the ceremony occurs in fine weather, when it is possible to begin a hunt at once.

The Rite Sayak

("All is open, all is free, take everything." It is carried on at the end of December or the beginning of January.)

With the approach of the ceremony the family which is organizing the rite conducts a general cleaning of the living quarter—i.e., the sleeping room and the entry-way. At this time, neighbors (near and distant relatives) are preparing from wood a few paddles 10-20 centimeters in length, and four imitation ducks. On the small paddles they paint silhouettes of various sea animals and fur animals of the tundra. The celebrant ties one end of a thong to the upper ends of the poles of the frame of the house. The other end he ties to the entrance of the house. On the thong he fastens the paddles and

imitation birds. In the middle of the room two blubber lamps have been placed, one on top of the other. The celebrant puts the ceremonial pole in front of these. The pole is put in the same place as in the ceremony Naskunikhkilik. The ceremony begins with the approach of twilight. The celebrant sings his ritual song to the beating of the drum and shouts in imitation of the quacking of a duck. His son or daughter goes out to invite the guests—only women.¹⁷ Each woman brings reindeer meat, sugar, and other foods with her on a platter. The platters with their foods are placed near the wall of the house. Then the young women go to the center of the room and make a circle around the ceremonial pole. (There will be from two to four such circles—depending on the number of women.) The celebrant takes his drum, rythmnically beats it and abruptly sings out. The women dance to this accompaniment with free-flowing gestures. Standing in place, with smooth movement of the head, arm, and body the women portray this or that aspect of women's domestic work (skinning seals, sewing clothing, etc.).

At the end of the dance the women give all the foods they have brought to the celebrant. In his turn the celebrant gives each woman a small slice of reindeer meat mixed with reindeer fat. Then the celebrant and his wife each take a paddle and stand alongside the entrance to the house. Some of the attending guest-relatives go out of the house one by one. Near the leg of each person leaving, the celebrant with his wife "paddle" (in the air) with the paddles, depicting by this his own paddling in the baidara at the time of the exchange (with the Chuckchis).

The son of the celebrant unfastens the end of the ceremonial thong from the door, from which are hanging the paddles and birds. His wife sits down near the bed platform, and the celebrant takes his drum and, striking it, sings his own ceremonial song about how successfully he will trade with other people. At that time the son lowers and raises the ceremonial thong with the amulets as if demonstrating that it is intended for the exchange.

With the finishing of the celebrant's singing, the guests leave. The celebrant and his wife go to the bed platform to sleep, but their children stay in the outer room to guard the burning of the blubber lamp. In watching the flame all of the neighbors wishing to may take part, young boys and girls, who are relatives of the celebrant and his wife. The flame of the blubber lamp burns from the beginning until the end of the ritual, and all those guarding it are forbidden to sleep.

Early in the morning, when the celebrant wakes up, his son brings to him the ceremonial stick used for striking the drum and they set out to call the guest-relatives together. Going up to each house, the celebrant knocks the stick on the side where the entrance is and shouts: "Ogo-go-go-go-go-go! Agnagat uzubnakut" 'the girl is going to circle around.'

Having invited the neighbors, the son and the rest of those with him who guarded the flame begin to sleep. They sleep until evening. The women come together quickly, stand as they had the preceding evening (around the pole) and dance to the beating of the drum and the shouting of the celebrant. Now the dance takes on a different character. The dancers move sideways in a circle and rhythmically stamp one foot after another. The old women go into the middle of the dances in the house. They bring empty trenchers with them, and sit on the floor to await the end of the dancing. The dances last a long time, and require great physical strength and endurance, in order that one will not bring shame upon himself through leaving the circle before the end of the dance. When, however, one or another of the dancers quits out of strength and falls, the celebrant stops beating the drum and cries: "Ogo-go-go-go-go-go!" (He "scares away" the evil spirit of death from the fallen person.)

The collapsing women slump to the floor, and it is thought that their "shade" then crawls away from the circle of dancers toward the wall. During the time when the celebrant is singing to the fallen dancers, the dance itself does not stop and the dancers must not rest. When the next one leaves the dance, the celebrant stops beating the drum momentarily, shouts, and then returns to the accompaniment.

With the ending of the dances the celebrant puts boiled reindeer meat into the trenchers of the old women. After that all the guests leave.

During the day, without invitation old men and women (relatives) gather in the celebrant's sleeping quarter. The celebrant's wife entertains all those who have come with the food that was prepared for the ceremony.

In the evening the celebrant's children go to the houses of neighbors and invite them with these words: "Are you not going to take food with us?"

They treat the assembling guests to boiled reindeer meat, kanal-khinom¹⁹, frozen fish, and soured grass.

Having eaten, the guests in turn each sing their own song, a song of their family, of their ancestors, of the strength and courage of their family, of aspects of work, and other things.

The guests leave, and the celebrant and his wife lie down to sleep, but the children once again stay in the outer room to watch the flame until morning. At daybreak the children set out to invite the guests. This time they invite only young boys. Together with the young lads come old women with empty platters. The boys do the same type of dance as did the girls. At the end of the dance, the youths leave the house. The celebrant distributes *kubukhsi* (soured grass) to the old women, and they leave. In the daytime the celebrant gathers together guests of both sexes, and invites all of them to have of his food.

In the evening all the young girls and boys who had taken part in the dances gather in the house of the celebrant. Each of these by turn sings the song of his own family (either the maternal or paternal line). Then once again all leave, the celebrant and his wife lie down to sleep, and the children remain to guard the flame.

At night, the celebrant, his wife and all adults who are resting in the sleeping room go out into the outer room and don white rain parkas. On his face each member of the family has one black line under his left eye, which he wears until the end of the ceremony.

The celebrant's wife and his daughter take a real paddle and seat themselves on the $akita^{20}$.

The son takes the end of the strap on which were tied the amulets (paddles, birds). To the accompaniment of the drum, the father sets the tune for a ceremonial song about the forthcoming happy exchange. All sing together, while the son lowers and raises the strap in time. After a short pause, all the family sing the same song, but without the drum and in a casual way. Then everybody sits down in a semi-circle near the bed platform. The celebrant calls out the name of one of the family members present, for example Oomkaooge. All others take it up: "Oomkaooge went away with sickness." The celebrant calls a second name, for example Taleko. Everybody joins in: "Taleko went away with sickness." And so on, until all members of the family are named. At the same time as someone's name is being pronounced, everybody points to the door with their hands and clicks their tongue.

Having conducted out these people from those present, the participants then set about the "welcoming back" of the same individuals. All together they ask: "Who is coming? Probably Oomkaooge?" and then everybody sneezes at the same time, as if thus to confirm the answer to their question. They repeat this until the last person enters from among those who are present.

With the end of this process of "removing sickness" the guests (the near relatives of the wife and husband) come into the house and seat themselves around the outer room. The celebrant cuts a piece of meat from the lips of a seal (the soft part without hair), slices it into small pieces and gives them out to each person in the house. The guests are sitting in a circle. Each one holds the meat in the right hand. Rhythmically everyone simulates throwing the meat to the ground and then putting it in his mouth with these words: "I would chew, I would chew, I would chew." First they lift their hands upwards and then lower them in the direction of the earth, crying out as they do this, "The seals gave." The next time they call out another maritime animal (mukluk seal, sea lion, walrus and others). But they do not name all the animals. Having named a particular animal, everyone takes the meat into his mouth and quickly swallows it. Everybody stands up, puts his hands on his head and says: "Whither

do I reach? I reach the top." He lowers his hands to his shoulders and utters: "Whither do I reach? I reach to the shoulders." Then he lowers his hands to the thighs, knees, heels, to the big toe of the foot and utters the same question and answer.

Just as the last question and answer are being said, everybody begins to jump up to get the paddles tied to the thong. Each one tries to pull down as large a paddle as possible. By this time the thong is tied very high, and much effort is required for a person to get the paddles which are tied to it.²¹

The celebrant takes the paddles and birds himself and carries them into the street. Against the north wall of the house stands a small wooden tripod and he ties the birds (the ducks) and paddles to it. He returns to the house, takes one of the blubber lamps and extinguishes it. By this time the house is filled with guests (neighbors). In the space between the walls of the sleeping platform and the wall of the house (this space is usually used as a storeroom) sit four men. One of them has a drum. They sing one of the common songs, not concerned with the ceremony. The celebrant takes some one or another skin or fur, arctic fox, mukluk seal, seal, or another kind), places it at his feet and begins to dance near it, by his movements praising his piece of goods. During the dance all the guests join in with singing and rhythmical shouting.

Having finished the dance, the celebrant takes from the floor the article near which he had danced, puts it at the feet of the man with whom he wishes to exchange, and returns to his former place.

The article having been received from the celebrant, the exchange partner takes it and leaves for home. He returns with something for exchange, places it at his own feet and dances in the same manner as had done the celebrant. Upon finishing the dance he gives the article to the celebrant.

The general exchange then opens. Each one present in turn puts at his own feet an object, dances, and puts it at the feet of some other man present in the house with whom he wishes to exchange. The latter in his turn places an object at his own feet, dances near it, and gives it to whomever had given him the "merchandise". The exchange takes place without words and without any questions. But everybody who engages in the "trading" knows that he can exchange only things that are equivalent in their value. For example, for a skin of a mukluk seal—that of an arctic fox; for a bomb for a whalegun—the skin of a mukluk seal, etc.

The old women come into the house during the time of the exchange; they also wish to receive something from the person who is celebrating the ceremony. Near the ceremonial pole and blubber lamp lies the joint from a seal's fin—the "knucklebone"—which is placed there especially for the ritual. One of the old women takes the "knucklebone" and, turning to the celebrant, says "Here at these finger tips is your

reindeer meat" or, more generally, she names anything that can be given to her. The celebrant gives the old woman some meat. The remaining old women do the same thing, and after them the old men do likewise. The celebrant in his turn asks each old woman and old man what they have "at their finger tips", and they receive the things they name or else some food. This exchange is again conducted systematically according to fair principles of trade.

After the ending of the exchange, the celebrant gathers some ashes from the blubber lamp (in the blubber lamp moss burns in the place of a wick) and he goes to the entrance with it. Everybody observes his movements there. First touching the door, the celebrant then instantly throws the ashes into the street. At that time in the house incredible shouts and noises are raised. Everyone strikes anything that is handy and shouts: "Now we will be without evil spirits." The evil spirits in this manner are "thrown out" into the street along with the ashes.

The official part of the ceremony ends. The celebrant then boils a large amount of reindeer meat and invites guests into the sleeping quarter. In that room it is dark, and lighting a fire is not allowed, for to do so would make the evil spirits able to kill people. Therefore the guests eat the meat in the darkness. Then they sing songs, wishing for the celebrant's good fortune. In the sleeping quarter the shaman also is sitting. In his song he depicts the future life of the celebrant. However, his prophecies take the form of two contrasting statements: "Perhaps you will live well and will kill many animals . . . But perhaps you will live poorly and kill nothing." ²²

In the dark of night the shaman and guests leave.

After three days have elapsed, early in the morning the wife of the celebrant picks up the ceremonial lamps and takes them to the tripod, which during this time had been set up by the celebrant at the northern corner of the house. She takes all these things far from the house and then, accompanied by the beating of the drum and by songs about the good fortune with which the ceremony came to an end, she burns the tripod, the blubber lamp, the birds, and the paddles in a fire.

Now the last of the "remaining evil spirits", "who had come in with these objects, is destroyed. The evil spirits have been "driven out" by the ceremony, for with the beginning of the ritual in the celebrant's house the evil spirits had "lodged" themselves in the room. Periodically people "chase" them from the house, and now the structure is finally freed from them.

In the ritual sayak the primitive form of food exchange is strikingly evident. Among the Eskimo and Chuckchi this pattern of exchange is not limited to ceremonies. It has a place in the whole way of life. Individual Chuckchi and Eskimo families continued to carry on this

exchange with the nomadic Chuckchi right up to 1936. However, that exchange was not accompanied by the ceremonialism described in the ritual Sayak.

The Rite Kamygtak

("The Boots." It is held on various days of January.)

For this ceremony $prara^{23}$ and the same foods as in the rest of the rituals are prepared.

In the center of the outer room are placed the blubber lamp, seal fat, and moss. In the depth of night all the family enters the outer room from the sleeping quarter. All the dogs are driven from the outer room into the street. The celebrant's son stands at the entrance to the house and guards against the dogs' returning to the living quarters.

The celebrant ties a strap to the central junction formed by the outside poles of the frame of the house, and to that strap he ties a wooden whale.²⁴ The celebrant's wife pours oil into the blubber lamp, sets the moss wick, and kindles it along the two opposite sides. Having finished these preparations, the family members don white ceremonial rain parkas and paint their faces. After he has finished dressing, the celebrant takes a rattle and goes out into the street. He moves around the house against the direction of the sun, comes to a stop halfway, and shouts: "Right now we will hold a great ceremony." Addressing the "spirits of the ceremony", he commands: "Come unto us." He then returns to the house, takes his drum and, beating it, goes around in a circle inside the house, shouting while he does so: "Ogo-go-go-go-go-go!"

The women during this time have been singing to the accompaniment of the drum. Those who are unable to sing are required to leave, following the celebrant out of the house. Also, the men who are in the house must leave after the celebrant. At this time in the house the guests are gathering (the distant and close relatives of the giver of the ceremony). Having made a few turns around the house, the celebrant then makes his way toward the entrance and more intensely beats the drum, concluding in that way the cleaning out of evil spirits from the bed platform. At this time the celebrant's wife is standing between the blubber lamp and the bed platform and performs the dance "Hunting the Whale". With smooth movements of the arms, she simulates paddling first on one side, then on the other. "Floating" on the sea, she peers into the distance and "sees" a whale. Drawing nearer the whale, she "throws a harpoon into it".25

Having finished the dance, she sits down, and her husband puts a plate near the ceremonial blubber lamp and ties a piece of reindeer sinew to the hanging strap which was fastened to the pole at the beginning of the ritual. Each guest (relative) also ties a piece of reindeer sinew to the strap. Then the celebrant takes out a pair of boots from the bed platform (which, as a rule, must be new) and places them on the platter.

The celebrant's wife takes the platter with the boots, carries it around the blubber lamp, stops, and places it on the floor. Her husband stands at the wall opposite the blubber lamp. As a rule, the ceremonial lamp and strap on which is tied the "whale" are located between the man and the woman. All the guests are seated at that time. With smooth movements of his arms the celebrant draws to himself the "whale" and tosses it in the direction of his wife. She catches the whale and in the same manner throws it back to him. The man then catches the object and puts it in a resting position. Then the man and his wife change places. The wife takes with her the platter with the boots. They repeat the scene of tossing the whale back and forth. The celebrant and his wife then yield their places to the spouses of a number of their guests (relatives). The latter people perform in the same way as those who are holding the ceremony. Having finished with the "hunting" of the whale, the celebrant then sends some of his own children and young people from those who are present to get the old men and old women. The celebrant accompanies the sending of these messengers with the cry: "Ogo-go-go-go, to the boots, to the boots!" The holders of the ceremony greet the guests with a song and beat on the drum. When all the old men have gathered together, the proprietors treat them to everything that had been prepared for the ceremony, and give them tea to drink. At supper by turns the old men tell of the bygones of their own life and the life of their ancestors or of events seen or heard by them and their ancestors (and consequently, also the ancestors of the holders of the ceremony). During the time when the old men are telling their tales the shaman comes into the house. The celebrant gives him his own drum and asks for a song from him. The shaman calmly and slowly sings a song which the wife of the celebrant knows26, and she sings together with the shaman. If, during the time of the singing, the shaman's mouth has grown dry, he interrupts the song and says to the proprietor: "Surely there will be misfortune in your house." If, however, on the contrary, a good deal of saliva has gathered, which for quite obvious reasons very seldom happens during the singing, then he declares: "Surely you will kill a seal or a mukluk seal, and perhaps a walrus." Then the shaman tells the celebrant that "on the ceremonial platter somebody brought sickness into your house; therefore the ritual is going badly." At that point the shaman points out one of the guests' platters²⁷ and proposes to the celebrant that he rub it with the "stone spirit" (graphite)²⁸. This means that the guest is "evil" and has brought sickness to the ceremony, even though that guest may be a relative of the proprietor of the ceremony. With the coming of daybreak the younger guests leave. In the house remain only the old men and old women. The celebrant and his wife go from the bed platform into the hallway and with black stone (graphite) they draw lines on the guests' faces, "in order that all may be without sickness." The the celebrant cuts off pieces from all the food that was prepared, places them in the ceremonial cup and together with his wife goes out into the street. He throws the pieces in various directions—"feeds the spirits"—and returns inside the house. The celebrant divides equally among the guests all the food that had been prepared for the ritual.

Again the scene of the tossing of the whale, the singing, and the dances are repeated.

Upon the completion of the dances the guests (old men and old women) tell traditional stories about various happenings, tales and witty anecdotes²⁹. This takes all day. At evening time the ceremony ends. It has lasted twenty-four hours.

The Rite Kaziva

(The "Winding Around." It is conducted at the end of January or the beginning of February.)

For this ceremony reindeer meat, roots, and other types of food are prepared. Four small whales and paddles are made, and on the real whaling paddles, men, the house, the whaleboat with hunters in it, the process of hunting the whale, or people catching young codfish with fishhooks are drawn with soot. Another scene depicted is the towing of the whale to the shore and cutting it up. On the remaining few paddles a group of people is painted.

The ceremonial pole is put through the central junction of the framework of the house (the smoke hole). As in the previous ceremony, up to this time it had been located behind the house. The bottom end of the pole is put in a hole made in a whalerib. The rib is already prepared for the ceremony and usually lies on the floor in the center of the hallway or outer room.

All members of the family dress in white rain parkas and paint their faces. One side of the face they smear (i.e., draw lines) with soot, the other, with black clay. Everybody sets off for the shore. There they take a small piece of sea ice and solmenly they return with it to the house. They place the ice near the ceremonial "whale" (i.e., the rib) and light the ritual blubber lamp. They wrap a strap around all the poles of the framework of the house and make it fast. Two small paddles and figurines of the whale are fastened to this strap. One of the paddles is tied to the ceremonial pole, and the remaining one (with the drawing), to the inner wall of the house. With reindeer sinew they tie reindeer hair to the large paddles, and in the blade of the paddle they drill two small holes.

Next, two cross-wise sticks are fastened to the ceremonial pole. Their ends are connected by a thong, on which is hung reindeer hair. This forms a square which surrounds the ceremonial pole. To each corner of the square are tied red ribbons, and to the ends of the ribbons are tied bundles of white dog hair. To the outside end of the ceremonial pole (sticking outside the house) are tied two small sticks parallel with each other. To one of them is tied the skin of a male arctic fox, to the other, that of a female arctic fox. To the very top of the

pole is tied a bundle which is pointed toward the side of the house at a sharp angle. To the corner of this "turnpike" arrangement are tied two ducks. To their heads are fastened red ribbons, and to the ends of the ribbons, white dog hair.³⁰ Near the bed platform they spread out boiled reindeer meat on a plate. Two women (relatives of the celebrant) take the largest paddles, sit down, and waving them from wall to wall, they sing a ceremonial song about their supposed good fortune in the forthcoming exchange. The celebrant then moves closer to them and strikes up his drum.

Having finished the singing, the wife cuts pieces of meat and "feeds" (rubs) all the amulets which are hanging from the straps, and into the bags which hang near the "whales" she puts the pieces of meat. Having come to the end of the "feeding" of the whales, the celebrant invites the guests (his near and distant kin) to the table and feasts them with everything that had been prepared for the ceremony. After eating, the guests can leave when they wish. Those remaining sing a few songs, then disperse for their homes. The celebrant and his wife lie down to sleep, but their children guard the fire until morning. (The flame is kept going until morning in the sleeping quarter, because it is cold in the outer room.) In the morning everybody goes out into the outer room and dresses in white rain parkas. The women take paddles, wave them and join in a song with the celebrant, who accompanies the singing on his drum. The children call the guests together (who again are relatives of the wife and husband). The guests who are gathering go up to the ceremonial pole and grasp it with their hands. The celebrant then strikes up a ritual song, rhythmically beating the drum. His wife joins in singing with him, but the guests twist around the pole in time with the song—to the right and then to the left, in a half-circle. After this the guests leave, but following a meal they once again return, and the scene with the movement about the pole is repeated. Again they leave for their homes, and in the evening once more they twist around the pole. The relatives then lie down to sleep and the children guard the lamp. On the following day all these patterns are repeated. In the evening the celebrant again entertains the guests with the ceremonial food, that is, all the things that had been prepared for the ritual. Once again the relatives lie down to sleep, and the children guard the flame.

In the morning the guests come again. They bring their own foods this time (meat, greens, and other types) and place them near the ceremonial pole. Everybody sings the ceremonial song. Then the guests "feed" all the amulets with their own food, even as the celebrant had "fed" them. The celebrant takes a piece of meat, puts it on a platter and takes it to the shore. There he throws the meat into the sea and cries out: "Ogo-go-go-go-go!" He then returns to the house and to the old people equally distributes the food that had been prepared for the rite. The guests who took part in the twising around the pole, i.e., the guest-relatives, perform a dance to the singing and the beating of the drum. Then the celebrant opens the exchange. The nature and

process of the exchange is analogous to the trading described in the rite Sayak. The exchange lasts 2-3 hours, after which the amulets and ceremonial pole are removed. The guests depart, and the ceremonial ends on that. It lasts three days. The ritual of Kaziva is a ritual of exchange, distinct in its form from the ceremony Sayak. The character of the rite Kaziva is different in the sense that in it a larger number of intricate details appear than in the Sayak, especially those regarding the raising of the ceremonial pole. Together with this, in the ceremony Kaziva are fairly clearly shown a number of related attitudes: the "feeding" of the whale and the other amulets is a matter of concern not only to the family meeting at the ceremony, but also to all the relatives of the man's and women's line. Between the two families, the rituals of Sayak and Kaziva form a bond of relationship, stretching long in time.

All the rites and ceremonies which have been described were organized not only by the owners of whaleboats, baidaras, but also by other types of Eskimo. However, the owners of whaleboats sponsored ceremonies on a larger scale and drew into participation in them a greater number of relatives and fellow villagers, since they had at their disposal more economic resources. The less well-provisioned Fiskimo families conducted more modest ceremonies. If the settlement had several whaleboat owners, then they gave ceremonies for the people singly by turns.

The rites and ceremonies described were observed in two Eskimo villages—Chaplino and Serenek. A few are differently conducted from those in other Eskimo settlements, especially in Naukan and on [St.] Lawrence Island, but for the most part, they are all the same in theme—the struggle of man for existence.

Notes

(Unless otherwise indicated, all notes are from the original article.)

¹The original Russial article appeared in **Sibirskii ethnograficheskii sbornik**, **Akademiia** nauk SSSR, Trudy instituta etnografii. Novaia seria, Tom. XVIII, 1952, Moskva-Leningrad, pp. 320-334. I wish to thank Professor Richard Leed for his help in some problems of translation. (C.C.H.)

2"The 'kultbazy' or 'Cultural Stations' are political, cultural, and scientific research centres which the Soviet regime organized in the Far North. 'Cultural Stations' usually include a boarding school, a kindergarten, creches, a hospital, a first-aid post, a veterinary station, a metereological station and even a museum. Most 'Cultural Stations' later developed into townships. Out of the fifteen 'Cultural Stations' three were founded in the Far East, one for the Koryaks, one for the Lamuts and the third for Chuckchi and Eskimos." Walter Kolarz, The Peoples of the Soviet Far East. New York: Frederick A. Praeger, 1954, p. 76. (Note added by C.C.H.)

3The material on Eskimo rites and ceremonies is only part of the material collected by the author (I. K. Voblov) on the life and customs of the Asiatic Eskimo. For convenience in the description of rites and ceremonies, throughout the account the present tense will be used.

4This is the group of permanent hunters in a whaleboat belonging to one owner. Relatives of the owner usually comprise the group.

5Kamleika, sewn from the intestines of maritime animals.

6A dog is the Eskimo's wealth, his companion and helper in work. Even so, the Eskimo have few dogs and all this led to abandonment of the custom of sacrificing the animals.

7In its form this cabbage remotely resembles a tear drop. It has a nourishing property, containing a considerable percentage of iodine.

8It is as if the celebrant had brought into the house a part of the sea, and along with that, part of its animal life, representing in this fashion the desire for abundance and plenty in the home.

During the ceremony in the living quarter, the celebrant mentally calls all the good spirits unto himself.

10This shout is uttered so that the good spirits will hear the celebrant's voice and will come to him.

11The good spirits of the shaman are stronger than those of the celebrant. The shaman's spirits come as if to reinforce the power of the celebrant's spirits and, consequently, to increase the chances of the latter's receiving the prosperity he is wishing for.

¹²The dances are creative forms in which are depicted a number of economic processes: hunting for animals or birds; cutting up and dividing animal carcasses on the shore or at sea (skinning them); treating and and preparing animal skins, etc.

13This custom came down from the past, but it gained special importance during the period of the development of Russian-American trade with the Chuckchi and Eskimo, i.e., when the traders began buying the tusks.

¹⁴It is implied by this that the dead person together with the living is taking part in the meal. But insofar as he cannot take food as the living people do (the dead do everything backwards by comparison with the behavior of living people—so says Eskimo superstition), then those at the burial ground rub the gravestone which contains the dead soul with pieces of their own food.

¹⁵According to Eskimo belief, living man exists in two forms—the man himself and his ghost or shade. The shade always follows the man. One cannot leave it behind at the cemetery, because then a man would perish.

16The whalegun and Winchester rifle made their appearance among the Eskimo only at the beginning of the 20th century.

17Relatives on the wife's side.

¹⁸Roughly these resemble the dances of the Eveni, Buryat-Mongoloids, and Yakuts. The Yakutsk people's dance *yekhor* sometimes lasts for several days. In the circle formed by the dancers people sometimes relieve others who, having gotten tired, are giving themselves a rest. The dancer sometimes rests a few hours, eats, drinks koumiss and once more joins the circle of dancers. The person who, more than anyone else, can hold out is considered the staunchest and most hardy.

19Frozen walrus meat.

20The wooden headrest of the sleeping platform.

²¹Unfortunately the author (I. K. Voblov) was not able to ascertain the rationale behind the attempt to get as large a paddle as possible. But one can surmise that by this is indicated the desire for future riches, i.e., the wish to have one's own whaleboat or baidara.

²²As a general rule, the shaman does not make categorical statements in his "prophecies."

²³Soured grass. This grass, which is stored from the summer, is put into a barrel and water is slowly poured in. In the summer the barrel stands near the house; in the winter, inside the house. In the ritual sour grass is mixed with seal fat in the same way that food is prepared. This dainty and wholesome dish has a high percentage of Vitamin C.

²⁴This whale is skillfully made: to the wooden whale is tied a fin from whalebone, and to the head is reindeer hair, simulating the whale's spout.

25The woman's ceremonial performance in the dance "Hunting the Whale" and her active part in the rituals are obvious signs of the survival of matriachy among the Eskimo.

26The sharman sings a song of women's work, of processes of manufacturing women's boots, and sings one of the songs of the celebrant's wife.

27Usually the shaman chooses the platter of a man with whom he is displeased.

28The "stone spirit"—graphite—plays a "protective" role in the Eskimo way of life, such as in rites and ceremonies. It "guards" a man from the evil spirits and from the sickness brought by them. The lines drawn on the face during the ceremony have two objectives: one is the depiction of the sea animals which the particular family worships, and the second is the protection of the man from the evil spirits.

²⁹Here is one of the characteristic anecdotes. An Eskimo woman came to one of the villages to visit a friend. At evening time she went into the house of another friend from her childhood, the Eskimo man Nootaoogia, whom she had not seen for twenty years. Entering Nootaoogia's hallway, Sanikak, as this woman was known, heard the voice of Nootaoogia coming from the bed platform. Nootaoogia was saying to somebody: "Today I am not going hunting— my nose put on my boots, my eyes put on my parka, and my feet, my cap. They are all working on the shore." Sanikak was frightened at this and did not dare go to Nootaoogia's bed platform. She quickly returned to the other friend and mysteriously reported: "That Nootaoogia must live a fine kind of life—there he sits on his bed and yet various parts of him are working on the shore!" The childhood friend began to laugh and reported to Sanikak that Nootaoogia had three sons with such names, and that in the evening they all had gone to the shore to cut up a walrus.

³⁰Regrettably, the author (I. K. Voblov) was not able to establish the meaning of all these complicated procedures in the preparation for the ceremony.

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AN EARLY ACCOUNT OF THE RUSSIAN DISCOVERIES IN THE NORTH PACIFIC

TRANSLATED AND EDITED BY JAMES W. VANSTONE INTRODUCTION

Although the remnants of Bering's second expedition returned to Kamchatka during the summer of 1742, it was not until 1758 that the first connected narrative of this and other Russian discoveries in the northern Pacific was made available to readers in western Europe. In that year, George Frederich Muller, Professor of History in the St. Petersburg Academy of Sciences and member of Bering's expedition in Siberia, published an account based on records in the government files at Irkutsk and Jakutsk, together with documents collected after his return to Russia. This work, written in German and translated into English (Muller, 1761) and French, is the standard narrative of what Masterson and Brower (1948, pp. 3-4) have referred to as the first chapter in the history of Alaska which ended with the return of Bering's expedition.¹

In 1774, Jacob Stählin von Storcksburg, also of the St. Petersburg Academy of Sciences, published an account of the post-Bering discoveries that was translated into English the same year (Stählin, 1774). This work contains vague and confused references to the expedition of Lieutenant "Syndo" and a very inaccurate description of Kodiak Island and certain islands in the Aleutian chain. There is nothing in the text to suggest that any of the islands were discovered before 1765. This work is accompanied by a map which is equally confused and inaccurate.

The numerous deficiencies in Stählin were at least partly responsible for the publication, in 1776, of Neue Nachrichten von denen neuentdekten Insuln in der See zwischen Asien und Amerika, aus mitgetheilten Urkunden und Auszugen verfasset von J.L.S. The anonymous² author of this volume discusses twenty-four voyages of Russian hunters and merchants to Bering and Copper Islands, the Aleutian Islands, and Kodiak between the years 1745 and 1770, as well as the identity of these islands, their natural history and their indigenous population. Although the work of J.L.S. is much more scholarly and accurate than that of Stählin, it failed, for some inexplicable reason, to attract the attention of contemporary geographers (Masterson and Brower, 1948, p. 6). An almost complete English translation is to be found in Coxe (1780, pp. 17-174).

About this time, summaries of the Russian discoveries, based largely on Muller (1761), appeared in the work of other European geographers.³ Among them was the French geographer Jean Benoit Scherer whose summary appears in his Recherches historiques et geogriphiques sur le Nouveau-Monde published in Paris in 1777. Scherer lived in St. Petersburg for approximately ten years prior to 1774 and during that time obtained access to at least some of the manuscripts

of Georg Wilhelm Steller, the naturalist who sailed to America with Bering. While on his way back to Russia, Steller had been placed under arrest in eastern Siberia, and at that time had turned over many of his manuscripts to Professor J. E. Fischer, one of the academicians who took part in Bering's expedition in Siberia, for safe keeping and transportation back to St. Petersburg. Steller later was cleared of the charges against him but died without returning to Russia (Stejneger, 136, pp. 472-74). In 1774, Scherer published Steller's Beschreibung von dem Lande Kamtschatka, presumably having obtained the original manuscript from Fischer (Stejneger, 1936, p. 504; Golder, 1922-25, II pp. viii-ix). This work, preceded by a "highly confused and erroneous" biographical sketch (Stejneger, 1936, p. 493), was carelessly edited. The German naturalist Peter Simon Pallas was critical of Scherer for having published Steller's notes in virtually an unedited condition (Pallas, 1781-96, II pp. 255-56) and although this criticism is fully justified, it should be remembered, as Golder has pointed out (1922-25, II footnote 1, p. 190), that the work was thus prevented from being lost, a fate which befell many of Steller's manuscripts.

The summary of the Russian discoveries in Scherer's Recherches, although not notable for its accuracy or its detailed descriptions, is nevertheless an important minor document dealing with this subject. Although apparently unacquainted with the work of J.L.S., the author was familiar with Muller and Stählin. Since Scherer obtained the original manuscript of Steller's description of Kamchatka from Fischer, it has been considered likely that he also had the original of the journal that Steller kept during the voyage from Kamchatka to America and return (Golder, 1922-25, II p. ix). This appears to be practically definite since Scherer makes numerous detailed references to the journal, some of which correspond more closely to a copy of the manuscript discovered by Golder in the archives of the Academy of Sciences at St. Petersburg than to the one used by Pallas in preparing the original published version which appeared in 1793 (Golder, 1922-25, II p. vii; Pallas, 1781-96, V, VI). Regardless of the manuscript from which he worked, Scherer was very close to the original sources and in a position to have made important historical contributions. Even though he failed to do this, his summary of the Russian discoveries is of interest as a contemporary document relating to a subject that was, even as late as 1777, little appreciated and understood in western Europe.

One of the things that would have been of particular interest to western European readers of Scherer's time was Steller's views concerning the inhabitants of northwest America. It is true that this material had been presented by Muller (1761, pp. 85-89), but his treatment was brief and, of course, the journal itself was not available until published by Pallas in 1793. Scherer devotes considerable space to this subject, and thus gives the western European reader his first detailed account of Steller's ethnological contributions.

In order to appreciate fully the conclusions drawn by Steller concerning the aboriginal inhabitants of the newly discovered lands,

it is necessary to understand the conditions under which his observations were made. Bering's ship, the St. Peter, on which Steller sailed as surgeon and naturalist, left Avatcha Bay on June 4, 1741 (old style), parted company with the St. Paul on June 20th, and sighted the American coast on July 17th in latitude fifty-eight degrees. Two boats were sent ashore on the 20th, one to obtain fresh water and the other, in charge of Fleet Master Khitrov, to make explorations. Steller requested permission to accompany Khitrov but was only permitted to go in the small boat with one man to assist him. Since Bering had decided to begin the return jorney as soon as the water casks were filler, Steller, much to his annoyance and disappointment, was forced to be satisfied with a single day of exploration. The landing was made on Kayak Island and Steller, aware of the disadvantages under which he was laboring and of the short time at his disposal, began to look for indications of human habitation as soon as he set foot on shore. Although no people were seen, there was abundant evidence that the island was occupied and Khitrov's party, which explored nearby Wingham Island, also brought back objects of human manufacture. Presumably as a result of the artifacts found on Kayak and Wingham Islands, Steller formed a theory that these aboriginal peoples were related to those of Siberia, a conclusion which modern research has not changed. From this theory, he further reasoned correctly that America was much closer to Asia than was indicated by the present position of the expedition. It would appear that Steller was ashore on Kayak Island for approximately twelve hours. In addition to his ethnological observations, he also gathered much geological, zoological and botanical data, a truly remarkable accomplishment for such a short period of time (Golder, 1914, pp. 191, 194, 196; Stejneger, 1936, pp. 266-71, 289; Golder, 1922-25, II pp. 46, 99).

Having observed many evidences of human occupation on Kayak Island, Steller was very anxious to see the people themselves and verify his theory concerning their relationship to the northeast Siberians. An opportunity to do this presented itself when, on September 5th, two skin boats were sighted near Bird Island in the Shumagin group. These boats, each containing a man, approached close enough to Bering's vessel so that their occupants could be easily observed and presents exchanged. Later Bering sent a boat with twelve men, including Steller, toward the spot from which the islanders had come, but because of heavy surf and wind, it was not possible to land. The expedition's Koryak interpreter and two Russians waded ashore and were warmly greeted by a large number of men and women. Meanwhile, one of the islanders paddled out to the ship's boat and was given some brandy and tobacco, neither of which he appreciated. The rough weather made it necessary for the boat containing Steller and the others to return to the ship after only a brief stay and since the islanders seemed unwilling to part with their three visitors, especially the Koryak interpreter, it was necessary to fire muskets over their heads. Taking advantage of the confusion caused by this action, the three men hastily waded to the boat and all returned to the ship (Golder, 1914, p. 201; 1922-25, II pp. 90-95). The following day, in the same general location, nine skin boats were seen paddling in single file toward the ship, but only two approached close enough for the exchange of presents (Golder, 1922-25, II pp. 102-03).

Steller gives a careful and accurate description of these people, their boats, clothing and personal appearance; it is the first account by anyone of the Aleuts. His gifts of observation can be more fully appreciated when it is realized that he probably had no more than fifteen minutes in which to watch them at close range (Golder, 1922-25, II, pp. 95-98; Steineger, 1936, pp. 298-99).

The detailed presentation of Steller's observations concerning the inhabitants of the newly discovered lands and their relationships to the peoples of northeast Asia is the most valuable contribution made by Scherer in his summary of the Russian discoveries, a translation of which appears below. In spite of inaccuracies and failure to check sources with regard to other aspects of Russian expansion on the north Pacific, his first hand acquaintance with Steller's manuscripts enabled him to present valuable data of this great naturalist to western European readers for the first time.

HISTORICAL RESEARCHES CONCERNING THE NEW WORLD

By

J. B. SCHERER Paris, 1777 Chapter VII

DISCOVERIES MADE BY THE RUSSIANS IN GOING FROM KAMCHATKA TO AMERICA⁴

Distinguished scholars have maintained at various times that America was originally joined to some part of the Old World: of this number are Adrien Reland, in his Dissertation on the Language of the Americans, and M. de Maupertuis in his Works (published in Berlin, 1752),⁵ who thought that America had been united with the three other parts of the world, or at any rate, had only been separated by a strait.

In spite of the strong presumptions that tended to support the conjectures that the scholars had formed, it was not possible to establish, by the experience of travelers, the place where America approaches nearest the Old World.

When Czar Peter I, being in Holland, proposed to the Dutch to

furnish him some experienced navigators to discover at his expense a passage to the Indies through the Arctic Ocean, which they had searched for fruitlessly for a long time, and that the Chinese claimed to be aware of, he promised at the same time, to divide with them the profits of commerce with these regions; but the Dutch rejected these proposals in fear that when this passage had been discovered, that prince would appropriate all the profit.

When Peter I came to Paris some years later, the Academy of Sciences proposed to that prince, who honored it with his presence, to carry out the following investigations:

- I. How distant America was from the furthest northeast borders of Kamchatka.
- II. Whether the northern part of Kamchatka toward the Chukchi promontory, formerly called Cape Tabin, was not the country which was closest to America, or was not itself contiguous with it, according to the conjectures of many persons.

Peter I did not neglect the propositions which seemed to him to merit the greatest attention on his part; on returning to his country, he spoke to those whom he believed to be able to fulfil this objective. He thereupon took the wisest precautions and, desiring first of all to assemble the explanations on Kamchatka essential to his consideration, the Court of Justice established at Moscow under the name of Sibirski Prikaz, supplied him with what it had preserved for a long time in its archives on the area, particularly the accounts that Volodomir Atlasov, captain of the fiftieth cossacks, had deposited there on his return from a voyage which he had undertaken in 1701 from Jakutsk as far as the Arctic Ocean, and then all along the northern coast of Siberia as far as Kamchatka.

Kamchatka is a peninsula joined to Siberia. Although it had been discovered in the year 1643 by the Dutch and by the Russians, who had more than once explored that country toward the end of the last century, and who had finished their investigation in this one, foreigners have not as yet a detailed knowledge of it. With regard to the explanations which were given by Atlasov, they revolved in large part on matters already known, and on the profits which commerce would reap from the voyages that could be made to Kamchatka, a country rich in martins, sables and beavers, each pelt of which could be sold in China for up to sixty roubles.

Prince Gagarin, Governor of Siberia, whose extortions have unfortunately made him notorious, acquainted with the considerable value of these species of furs, took it upon himself in 1712 to order a Swedish corporal to embark from Kamchatka to cross over to America; the latter constructed a small ship to make the voyage but he returned after six days.⁹

In 1713, Prince Gagarin dispatched again, to the same destination, a Swedish lieutenant, named Malyn, who actually arrived in America but who stayed there a very short time, and who made a report to the governor which remains unknown.¹⁰

These expeditions, then, gave none of the enlightenment that the government desired, because M. Gagarin was less curious to inform

himself on the position of the country, than about the profits that could be reaped, either by commerce, or by the discovery of the produce and riches that these new regions might contain.

Peter I, little satisfied with the accounts which had been made to him up to then concerning Kamchatka, dispatched in 1714, an order to the commander at Nertchinsk telling him to send two men to the frontiers of Russia to undertake to embark from there to see if it were not possible to discover some unknown lands in those parts. The order was executed and although these two men had not the slightest knowledge of the art of navigation, they had nevertheless, after going several leagues, the good fortune to touch land; but as they were on their return, about to reach Kamchatka, a storm destroyed them.¹¹

This enterprise having miscarried, Peter I, shortly before his death, ordered, either to discharge the promises he made to the Academy of Sciences at Paris, or to satisfy his own curiosity, that a second voyage be made toward the north from the Eastern Ocean; he directed at the same time that it coast along the borders of Siberia in order to ascertain if the coast to the north is surrounded by the waters of the sea, or if it is attached to America by strips of land.

His death having prevented the carrying out of so interesting a project, his widow, the Empress Catherine, entrusted Captain Bering with this commission in the month of February, 1725. His instructions were to the effect that he should make the most exact explorations on the frontiers of Siberia toward the northeast, in order to determine if on that side Siberia is joined to America, or if a free passage by sea exists between this country and America.

Bering, following his instructions, proceeded northeast and reached as far as sixty-seven degrees eighteen minutes of north latitude, and discovered by his observations that the distance from the mouth of the Kamchatka River to sixty-seven degrees eighteen minutes was eleven degrees ten minutes of latitude and thirty degrees of longitude to the east, and that if the ice did not hinder the passage in certain seasons, it would be possible to come by sea to Kamchatka, 12 a discovery confirmed by the reports in the archives at Jakutsk which said that at the end of the past century the inhabitants of the mouth of the Lena, who are neither sailors nor acquainted with sea-faring, but simple peasants, had previously undertaken voyages by sea from the Lena to the Kolyma.¹³ The same reports told of a peasant from Jakutsk who in 1648, having undertaken the voyage from the Lena to the Kolyma, had rounded Cape Chukchi as far as the Anadyr River. This peasant, questioned on his return in order to know how and in what way he had gone about undertaking such a long voyage, laughed and replied simply: "All my countrymen are capable of undertaking the same trip that I have made; nothing will stop them either. They only have to keep on going, as I have done, along the coast, and they find at the end a canal in which the largest boat can sail, after which, in a good season, the ice will be as little a burden to them as it has been to myself.^{14"}

Captain Bering returned from his voyage to Kamchatka in the year 1730, under the Empress Anne, as much disposed to the prosperity of her people as Catherine I had been; she showed the greatest desire to continue these expeditions and wished to know exactly how far America was from Asia. In consequence, although Engineer Gvozdev had made in that interval the voyage from Asia to America, 15 she nevertheless ordered Captain Bering to make a second voyage, which he undertook in 1741, on two vessels, one of which was commanded by himself, and the other by Captain Chirikov. On Bering's vessel was M. Steller, Adjunct of the Academy of Sciences at St. Petersburg, and the vessel of Chirikov carried Louis Delisle de la Croyere, Professor of Astronomy in the same Academy.

These two vessels, which were to accompany each other during the entire course of the voyage, nevertheless did not follow each other long; for they lost sight of each other, according to the calculations of M. Bering, at the fifty-first degree, where the American continent was discovered and Chirikov's ship landed. Several persons on Bering's ship also asserted that they had seen the continent, but nobody wanted either to believe them or to approach nearer. Meanwhile, he discovered between the fiftieth and fifty-sixth degree of north latitude, a large number of islands; the one to which he gave his name, those of Mednoi, St. Theodore, St. Abraham, St. Macaire and several others. On the 18th of July, 1741, he again glimpsed on the sixtieth degree, the continent or the mainland of America, through a number of islands, but they believed it no more than they did the first time and passed without landing. 16

The voyage from Kamchatka to America has been undertaken since that time by several private persons, principally by a company of cossack merchants and others, whose purpose was to enrich themselves in trading for furs with the people of America. They took ship in 1766, under the direction of Lieutenant Sinda. They found, from the fifty-sixth to sixty-seventh degrees of north latitude, a number of islands, of which the most noteworthy are Kanaga, Tschepchina, Tagalok, Achta, Amlia, Kad-Jak, Umnak, etc.

From these islands they proceeded to land on the mainland of America.¹⁷ Their voyage was not unfruitful. It is they who brought the beautiful blue fox which the court of Russia presented to Prince Henry of Prussia, and which, on account of its beauty, is considered priceless.

The government, to encourage the company of traders charged with doing business in its American establishments, presented to them a gold medal on which was a portrait of her majesty, and they attached it with a blue ribbon to the third buttonhole.

Finally, the government ordered a last expedition which has confirmed not only all that was known of the voyage from Kamchatka to America, but served at the same time to verify the route that Bering had taken in departing from Jakutsk. Here is the detail of this expedition.

In 1764, five officers of the Russian fleet were chosen, namely Captains Chichagov, Panov, Babayev, Krenitzin and Levashev, to whom were not given, as formerly, simple instructions, but they were given maps on which were traced the route which they were to follow. Rewards were promised to those who distinguished themselves the most; to the one who reached such and such a degree, the title of captain of the first rank; if he went a degree further, he was to be named a rear admiral immediately; and if he doubled Cape Chukchi, he was to have the rank of vice-admiral.

The captains set out from St. Petersburg in 1764. Three among themselves constructed at Archangel for this voyage three skunards, a sort of small ship. It was agreed that Captains Chichagof and Levashef would come and meet them, setting out from one of the ports of Kamchatka. They carried out their voyage so secretly that even at St. Petersburg not many people suspected their true intention. It was almost generally believed that they had only gone to make explorations relative to the White Sea, and to survey it. They all returned except Krenitzin, who at the time of the return to Archangel, diverting himself with a fishing party, had the ill fortune to capsize his boat and to drown himself. Chichagov on his return was made immediately a vice-admiral of the Port of Reval; Levashev, Panov, and Babayev preferred pensions and retired on their lands to tranquilly pass there the rest of their days.¹⁸

This expedition is the last that has been undertaken by order of the government; the results have disclosed the profit that could be extracted from the fur trade. The government engaged 14,000 cossacks from the Ukraine to establish themselves in Kamchatka and vicinity. An ordinance of December 26, 1775, established a school of navigation at Jakutsk where the young people who are educated there will learn, in addition to the art of navigation and several European languages, everything relative to the commerce with Japan and with the people who inhabit the north of Asia, at the same time as languages that are in common use there. The object of this establishment is to train young people not only for exploration and discovery, but also to activate the commerce which can be made from the vast regions of Kamchatka to the environs of America and Japan.

After this brief account of expeditions made from Kamchatka to America, it remains to examine whether the natives who inhabit the coast of Asia opposite to North America have not peopled a part of that continent, and how far apart the coast of the two continents are. I will make use of for this purpose the journal that M. Steller made in going from Kamchatka to America.¹⁹

The author, whose just and intelligent mind would tolerate nothing but the absolute truth as the basis of his accounts reports:

- I. That he has seen, a little after having left the port of Avacha, below the sixtieth degree of latitude, the mainland of America, and perhaps the same coast where Engineer Gvozdev landed in 1732.
 - II. That today America is no longer joined to Asia anywhere.

III. But that, according to all appearances and indications which remain, America has been formerly united there, because the distance from Cape Chukchi or *Chukotski Nos* across to America is today only seven or eight leagues at the most; but if one does not wish to admit this point, it is necessary at least to agree that the connection was only broken off for an extremely short distance. This is demonstrated further by the archipelago that the Russians lately discovered, which shows clearly in different places that it is only a broken continent: because several of the islands which formed the archipelago broke and were further diminished daily before the eyes of the travelers.

With regard to the question whether America was formerly joined to Asia, M. Steller proves the affirmative by the chain of precipitous mountains in all directions along the coasts of the continent, from which rocks are precipitated constantly into the sea. As a result, when one perceives the coasts of America from a distance, they appear to rise up from the waters like immovable ramparts; but as one approaches them, one finds them so broken and full of pitfalls, that it is no longer possible to doubt their continual diminution and one cannot but perceive the ravages that have been caused by sea water for a certain number of years. M. Steller, not content to have examined the effect of these collapses, reveals at the same time the cause. He observed that earthquakes are more frequent in these regions than in all other parts of the world and so destructive that nearly every time they occur, he saw, in casting his eyes on the American shoreline, great masses of rock detached and hurled suddenly into the sea with a tremendous amount of trees and debris dragged along by the fall, with the result that a part of what formerly formed a long chain of rocks and mountains has made way for open sea, and the strait which separates Asia from America is enlarged each day.²⁰

It is wrong, however, that some persons in considering the frequent earthquakes to which North America is subject, have regarded it as a sterile and useless land. M. Steller observes judiciously that these mountain collapses are not due to deterioration of the pole, and that these earthquakes only trace their origin to mines locked up and hidden in the bowels of the earth which, not being exploited, erupt these enormous masses of rock.²¹ Those who believe, he adds, that it is too cold in these regions for the existence of mines are in error. On can cite Siberia; however cold it may be in this country, they discover in the mountains and in digging in the ground, mines of all types even now. In addition to ordinary metals, the most precious minerals are

found there; the copper contains so many veins of gold that nobody even takes the trouble to separate them. They make money out of it, although it is only used in the country because export is forbidden. It was several years ago in Siberia that a volcano was seen to burn and consume a copper mine without exploding the mountain because the vein and seams of that metal were too slight and too small. All that happened was that this vein, which was formerly of very good copper, became very black and not suitable today for any purpose.

It is otherwise when the mines are filled with sulphur and other inflammable materials; and this makes understandable what havoc can be caused by the mines which are found in large numbers on the coasts of America. Let us then agree with M. Steller's conclusion that even the greatest cold is not at all destructive to the mines. One can even confirm this point of view by the account of several other travelers who have penetrated into the north. M. Ellis in his description of Hudson Bay speaks, not by hearsay but by having been personally on the spot, of a large region which was about seven leagues distance from their fort as nearly covered with stones, among which were found a number of perfectly round pyrites, nearly the size of a six pounder. The English who stayed there imagined that this form had been given them on purpose by the French, in order to use them in their cannons when they attacked the fort; however, we have rather to regard these pyrites as remarkable phenomena of natural history, and as certain proof that the country is filled with metals, even the most precious. Pyrites always contain a little gold; they are often rich in silver, but it is rare that one finds lead or tin. M. Ellis has said elsewhere: "With regard to minerals, it is certain that they are found here in huge quantities of various types. I have myself found iron ore and they assure me that one can see lead ore on the surface of the ground everywhere at Churchill, not to speak of an extremely rich copper mine from which the northern Indians often brought pieces like the one which I myself keep in my cabinet."

It is also necessary not to forget that in Kamchatka, which is likewise a cold country, one finds ores of native copper in such a large quantity that the fragments are scattered on the roads like grains of sand. M. Steller tells us that of all the axes that he saw in America, he found very few of stone, but nearly all of copper, and of a color as red as scarlet.²²

The volcanos, whose eruptions are frequent in North America, not only cause, by the collapse of the mountains which line the coast, the widening of the branch of the sea which separates Asia from America, but these earthquakes explain at the same time why certain parts of the Arctic Ocean are filled up by the falling in of earth, while, by the changing of their bed, these waters pour into other places. It is evident that if chains of mountains subside and fall into the sea, it forms in the waters a mass considerable enough in volume to turn aside their course and to dry up a part of their old bed. Such is

the nature of the terrain that is found beyond the dwelling place of the Yukaghir, a people who live between the Lena and Kolyma Rivers. The archives at Jakutsk inform us that this region was formerly an island in the Arctic Ocean, instead of being joined to the continent as it is today; but there are two important things to be noted: first, that the ground soil is composed of layers of mud and clay, resembling that which is found at the bottoms of rivers and the sea; second, that in this district, which may be 200 versts in length,²³ one finds the coasts strewn with tree trunks, although the soil absolutely does not produce them: the sea carries them from neighboring lands and in such a large quantity, that one finds in several places whole wood piles where the timber has piled up like mountains. This wood is of larch, cedar, pine and fir.

It is in this manner that the same writer observes in his *History* of *Kamchatka*, chapter VIII, that among the trees of Kamchatka, one notes not only the larch and the fir which are growing on the mountains and which are so thick, so high and so compact, that it is possible to employ them for the construction of ships as well as for houses, but even white fir and many pines and cedars are found there that do not grow in the country but are thrown up on the shore by the waters of the sea which caused the presumption that a large country near Kamchatka had to exist, as was happily proved by experience.

It is in this manner that one finds on the coasts of several other cold countries, such as Greenland and Iceland, trees of all sizes—driftwood conveyed by the waters of neighboring lands that are wooded. A long dispute has arisen in this connection among scholars, as to where this wood could come from. They supposed that it came from America, but the difficulty was to explain how. It is no longer possible to doubt that the wood comes from America, from these same rocks that are precipitated daily into the sea, and on which M. Steller reports that he has found not only the same type of wood, but forests so thick that it was difficult to catch a glimpse of the rays of the sun. In addition to what he said of this in his *History of Kamchatka*, he speaks of it again in a more detailed manner in his manuscripts.

It is, as we have said, the earthquakes which are the cause of all this damage. They not only take place on the coasts of North America but also in the flat country and on the islands which are found in the newly discovered archipelago, between the fiftieth and sixty-seventh degrees of north latitude. Steller cites, for example, what happened to him on Bering Island, which is in the fifty-sixth degree of north latitude, where he was obliged to pass the winter in order to repair his boat. "We experienced," he said, "several shocks from earthquakes, which each time detached entire sections of rocks and left such traces of their shock, that there were quagmires which crossed the island from one side to the other." It is on this same island that Captain-Commander Bering died.²⁴

These discoveries and observations of M. Steller, considered in themselves, prove with much clearness that America was formerly joined to Asia. It is even possible to rely in this respect on a map of the world found in the monastery of Moines de Kiovie, and now deposited in the Academy of Sciences at St. Petersburg. It fixes the distance from Kamchatka to America at approximately less than half a league; but in going back several centuries earlier than the time this map was made, nothing would have been more natural than to believe that America had been joined to Asia. But to satisfy the more difficult persons, who, in spite of all these reasons, obstinately maintain that the sea at all times formed a separation between America and Asia, let us suppose that this distance was half a league; that still will not alter the fact that America could have been peopled from the north of Asia, but M. Steller, wishing to add certainty to the probabilities, compares the Eskimos and the Hurons, peoples of North America, with the Kamchadal, Greenlanders, Koryak, Chukchi and finally, the Japanese. He finds that they have between them considerable resemblance, as much by their clothing and outward manners as by their morals, their customs and their way of life. Here is a summary of his principal observations: 25

- I. All these people were divided into tribes or families that were governed by the oldest one or by the father of the family. When the New World was discovered, it was found that these people were divided into different families who all depended on a family chief, called $Cacique.^{26}$
- Their canoes, said M. Steller, are of a construction very suitable to their needs, easy to carry on land and move in the water. They are made of wood or of extremely thin whale ribs covered with seal skin, with the exception of an opening in the middle which has a rim of whale ribs or of wood to prevent the water from entering. This hole is made in such a way that only one man is able to get in and seat himself in the canoe, stretching his legs in front of him. There are some where a piece of skin comes up all around from the rim that the man seated in the canoe ties around his body, protecting him completely from the water. They place on the seams a kind of tar or paste composed, it is claimed, of seal oil. They transport in these canoes all that they need and equipment for fishing for whales, sea horses, narwals, seals, etc. These small canoes are only for the men; they are pointed at both ends and are approximately twenty feet long by eighteen inches or two feet wide. The man who is within has only one paddle, but it is flattened at both ends and is used for paddling alternately, first on one side and then on the other. Besides these small canoes, they have others which are much larger and more unprotected, and in these the women are obliged to paddle. These canoes are constructed with the same materials as the others and are large enough to carry more than twenty persons at a time.27

III. The Asiatic peoples referred to above also have an instrument similar to that of the Americans for lighting a fire. They take two

small boards of dry wood, and having flattened them, they make a small hole in each one through which they pass a peg of wood, around which they wind a cord. Then they turn the cord with such rapidity that the wood catches fire by friction; then they place the lighted wood against a kind of dried moss which is used as tinder.²⁸

- IV. These are not the only utensils common to these people. M. Steller remarks that among the savages of America he found a large wooden vessel made with the bark of the lime tree, as in Russia. He also saw several arrows which are bigger than those of Kamchatka, and which approach, as regards form, those of the Tungus and the Tartars, being blackened the same way and having the same polish.²⁹
- V. M. Steller has remarked that among the North Americans, for it is the northern part that we are talking about here, he saw a grindstone on which could be seen traces of copper, as among the Kalmaks and the Asiatic Tartars. He also saw there many hatchets made of copper. It is not that iron is not as abundant there as copper, but it requires more care and more intelligence to cast it.³⁰
- VI. The same comparison can be made between the peoples of northern Asia and the Americans with regard to their type of nourishment. They make use of the same type of fish, called Yukola, which has the taste of salmon and trout, and which, when they pickle it, becomes entirely transparent and forms a delicious dish.³¹
- VII. They have the same drink composed of sladkaya trava, of which they make different uses, as one can see in the work of M. Steller. The sladkaya trava is the herb that we call acanthus; they employ it principally to make brandy. 32
- VIII. Among his observations on botany, M. Steller remarks that he has found, among the savages of North America, some rolls of thongs made from a sea plant which appeared to him, after tests that he made with them himself, to be of astonishing strength and firmness. He also adds that there fell into his hands some inner bark of larch and pine which were tied in rolls and dried. They were eaten in that country in the same way as in Kamchatka, in all Siberia, and even in Russia, as far as Khlynov, Vyatka, etc., in times of scarcity.³³
- IX. Of all plants, nettles are perhaps the ones most used by the North Americans. M. Steller has seen them picked and carded like flax, in order to send them afterwards in packs to their destination, in the same manner as the Kamchadal do it.³⁴
- X. The Chukchis make shirts with the guts of whales, like the Americans, and they also employ them, like the Koryak, as leather bottles. 35
- XI. The Americans, as well as the people of northern Asia, employ all types of remedies to prevent pregnancy. They allow their women or rather they often oblige them to miscarry, by making use of a

certain plant. The reason for this custom is to relieve in some manner the heavy burden which oppresses a poor family that is unable to feed its children. This custom is observed today among the Mongols where, by the same principle of a barbaric economy, they permit those who are not in a position to feed their children, to kill them at birth.³⁶

XII. The fashion of adorning the face with stones, bones and the teeth of sea horses is customary among the North Americans, as among the peoples of the frontiers of Asia. They regard this as fine adornment.³⁷

XIII. They also make use of dogs to pull sleds, in the same manner as the Kamchadal. The dogs of the North Americans never bark and only growl when they are provoked. These dogs are the only beasts of burden of which they make use. They pull much heavier loads, and drag them, when it is necessary, much greater distances than men. They are easily trained in everything taught them, and since they are very docile, they are always very useful. However, the Americans greatly neglect these animals which are almost compelled to search for their food themselves.³⁸

XIV. The North Americans wear in summer a type of hat composed of the stems of feathers, and made in the form of a screen. The Kamchadal, Greenlanders, Koryak, Chukchi and the Japanese wear hats of the same type.³⁹

XV. The North Americans understand not only the language of the Chukchi and Koryak, but also that of the Kamchadal.⁴⁰

XVI. Those of Japan know the North Americans perfectly and all the people of which we have just spoken, by means of commerce which they have kept up for a long time with them, not under the name of Japanese but of Suhsamans. 41

I have chosen, among the comparisons that M. Steller has made, those which serve to make known the particular affinity which is found between the border peoples of Asia and the North Americans. Their manners are so extremely similar and their customs conform so perfectly, that it would be difficult to doubt the conclusions which I have drawn. I know that several authors, as for example, Laet and Hornius,42 have surmised before me that America could have been peopled by the Tartars, but without the truths which supported their opinion they remained conjectures. However, they would have been able to supply decisive proofs if they had consulted the History of the Tartars, 43 and the History of the Mongols. In these two histories we learn which people migrated last from Asia to America and from where they came. We recall what was said at the beginning of this work on the Greenlanders and Eskimos; that these people called themselves even today Karalit or Karlit: Their name can lead to a knowledge of their origin. In consulting the History of the Mongols by P. Gaubil,44 we see that in 1203 a prince named Toli or Taugrul, lord of the horde

of Keraits, or prince of Korea, after having acted a long time in harmony with Genghis Khan, abandoned his cause at the suggestion of another prince called Tschamouha, the same that Abulgasi-Bayadur-Chan named Zamucazizen; that Genghis Khan, irritated by this defection, swore his doom, and having defeated his army, massacred it. After the defeat of that prince, the name as well as the tribe of Keraits, being lost, no longer figures in the History of the Mongols. It speaks only of some further efforts of his son Ilho to resurrect his cause, but they were unavailing. The rest of the horde, plundered of their habitations and pursued by Ghengis Kahn, looked for a place of refuge from him. They found it in that section of America opposite to Korea, which thus became their country along with Greenland. Europeans had at first given to these people the name of Greenlanders and Eskimos, but when the inhabitants were questioned on their origin, they gave themselves that of *Karalit* or *Karait*. The Europeans to which they spoke, understanding only imperfectly the history of Asia, thought that these people had to be one of the Tartar tribes that had disappeared from this continent, but were not able to give decisive proof. The History comes to the support of conjectures on this occasion, and proves in effect the identity of these people and of those who fled the sword of Genghis Khan. This colony of Karaits who went from Korea to America is entirely different from those that the Chinese had sent there a long time before. They had no kind of science, religion or culture. What one sees among them today is perfectly in accord with the *History;* their Lord Toli, being of the race of Ghengis Khan, had, the same as he, no idea of religion. They do not understand and never have known tillage. Abulgasi-Bayadur-Chan said in his own words: "they lived in the country of the Mongols and were not used to cultivating the ground." One seeks uselessly some difference in their name. The Eskimos call themselves Karalit or Karlik, and Abulgasi-Bayadur-Chan furnished me with evidence that already in his time they availed themselves indiscriminately of the name of Karait and of Karlik.

This last emmigration of peoples from Asia to America being therefore well verified, I believe to be justified in alleging it as an authority against those who deny that the population of America was brought about by the movement of peoples who inhabited the coasts of Asia; for if a people ignorant and inferior in all ways to the Chinese have been able to execute this migration, one must be inclined to believe with all the more reason that an intelligent people have been able to send colonies to America, in a time when interest in commerce invited attempts, which in diminishing a too numerous population, were expected at the same time to open new outlets.⁴⁵

It results from all these facts that it is not possible to doubt that America had been populated from the old world. However, to safeguard our principles against any possible objection, we will show how it happened that the Americans, who trace their origin from the Chinese, the *Karaites* and the Africans, nevertheless differ from these peoples in

color and facial traits; and what has been the origin of the different species of animals that one finds in America, of which there are several not to be encountered in any other part of the world.

Notes

1See Masterson and Brower (1948, pp. 1-11) for a detailed discussion of eighteenth century bibliography concerning the Russian discoveries.

²For discussions of the identity of J.L.S., see Masterson and Brower (1958, footnote 25, p. 7) and Stejneger (1934).

³These included Engel (1777, vol. 2), Bellin (1766), Adelung (1768) and Leclerc (1778).

4The translator wishes to express his appreciation to Mr. and Mrs. J. Gaudier who read and corrected the translation. With regard to the spelling of Russian names, places and other words, the usage established in Golder (1922-25) has been followed.

⁵Adrien Reland (1678-1718), a Dutch orientalist, and Pierre Louis de Maupertuis (1698-1759) a French mathematician, were also interested in problems of geographical speculation.

6The Sibirski Prikaz was the bureau in charge of the administration of Siberian affairs. From its offices in Moscow, orders were issued, officers appointed and to it reports and tribute were sent (Golder, 1914, p. 19).

7Although neither the discoverer nor the conqueror of Kamchatka, Atlasov can be called the first explorer of the country, and his description of the peninsula and its inhabitants is better than that of any Siberian of his time. He and his party left the Anadyr River in 1679, and although they did not penetrate quite as far south as Lopatka Cape, they nevertheless were near enough to be able to obtain information from the local inhabitants concerning the Kurile Islands. Atlasov returned to the Anadyr in February of 1700 and then proceeded to Jakutsk and Moscow Petitions from him to the Czar are dated in the latter city in early February, 1701. A detailed discussion of Atlasov's travels can be found in Golder (1914, pp. 98-101) and Muller (1761. pp. 31-33).

8There were Russian posts along the Penjinsk River in Kamchatka at least as early as 1652 (Golder, 1914, p. 97), but the Dutch were not concerned in the exploration of the peninsula. In 1643 a Dutch expedition attempting to determine the extent of the elusive Terra de Jeso discovered two of the Kurile Islands and reached as far north as the southeast part of Sahkalin Island (Golder, 1914, pp. 121-22).

9This appears to be a confused account of what is considered to be the first passage by sea from Okhotsk to Kamchatka. According to Strahlenberg (1738, p. 17), one of the sailors on this voyage was a Swedish corporal named Henry Busch. Muller met Busch at Irkutsk in 1736 and gives an account of the voyage which took place in 1716-17 (Muller, 1761, pp. 42-43). Nordenskjold also discusses this expedition and draws attention to the errors in Strahlenberg's account (Nordenskjold, 1881, II pp. 175-76). Since the latter states that the voyage took place in 1713 with the return trip occupying six days, Scherer may have obtained his information from this source. However, there is no indication that Busch and his party ever attempted the crossing to America.

10According to Golder, a Swedish naval lieutenant, Ambiorn Malyk, was with a group that was sent by the Russian government to find a water route from Okhotsk to Kamchatka. Malyk and his party arrived at Okhotsk in the summer of 1717 and crossed over to Kamchatka in the fall of that year. Golder mentions that from this time the water passage across the Lana Sea (Sea of Okhotsk) became the official route to Kamchatka (Golder, 1914, pp. 108-09). This may have been the event referred to by Scherer, although, again, there is no indication that this expedition involved an attempt to reach the American coast.

¹¹Although the date and most of the details are wrong, this is doubtless a reference to Peter the Great's first attmpt to determine the relation of Asia to America. He ordered two of his officers, Fedor Luzhin and Ivan Evreinov, to proceed to Asia and make certain investigations for him and also to determine whether Asia and America were united. They left Russia in 1719, reached Kamchatka in 1720, cruised and explored the Kurile Islands in 1720 or 1721 and returned to St. Petersburg in 1722 or 1723. They made a verbal report to the Czar, the results of which are not known (Golder, 1914, pp. 113-14; 1922-25, I p. 6; Bancroft, 1886, pp. 22-23; Muller, 1761, p. 44).

¹²A detailed discussion of Bering's first expedition is to be found in Golder (1914, ch. VI).

 13 The Russians had reached the Kolyma River at least as early as 1644 (Golder, 1914, p. 72).

14This appears to be a reference to Simon Deshnev's supposed voyage by water from the Kolyma to the Anadyr in 1648. Muller discovered original manuscripts in Siberia concerning this expedition and was the first to publish an account of it (Muller, 1761, pp. 4-8). Golder (1914) devotes his entire fifth chapter to an examination of the evidence for this voyage and concludes that it never took place. Other authorities have disagreed with Golder (Jochelson, 1928, footnote p. 6) and accepted the correctness of Deshnev's account.

15The expedition led by Gvozdev during the summer of 1732 landed on both the Diomede Islands and anchored near the mainland but did not go ashore. Neither Gvozdev nor those with him were aware that they had seen the American continent but thought it to be another island. An official report of the voyage was not made until ten years later (Golder, 1914, pp. 162-63).

16It is difficult to understand why this account of Bering's voyage is so sketchy and inaccurate, particularly since Scherer presumably had access to Steller's journal kept during the voyage of the St. Peter. Full accounts of the Second Kamchatkan Expedition are to be found in Golder (1914, 1922-25) and Waxell (1952); it will be sufficient simply to point out the errors in Scherer's account. The St. Peter and St. Paul separated between the forty-eighth and forty-ninth parallels and the latter sighted the American coast in latitude fifty-six degrees. Bering's ship sighted land on July 16th (old style) in latitude fifty-eight degrees and a landing was made on Kayak Island. Then, after deciding to return to Kamchatka, made a landing in the Shumagin group and sighted other islands in the Aleutian chain. With the exception of Bering and Copper (Mednoi) Islands, the other islands mentioned here are imaginary and appear to have been taken from Stahlin's map (1774, see the next footnote.)

¹⁷Ivan Synd (variously spelled Sind, Sinda, Syndo, etc.) was a midshipman on Bering's ship, the St. Peter. After the return of the expedition to Okhotsk in 1743, Synd remained there. Later he was promoted to lieutenant and in 1764-68 he was sent by the commander of Okhotsk

to the northeast in the vicinity of the Chukchi Peninsula. Synd placed a number of imaginary islands on his chart and reported the existence of a mountainous coast opposite the peninsula. However, he made no attempt to survey this coast, and there is no proof that he actually sighted the American mainland. Synd's voyage is described in some detail by Coxe (1780, pp. 300-02) and Bancroft (1886, pp. 157-58). It was government sponsored and not a private expedition as Scherer suggests. Stahlin's map (1774), which Bancroft has referred to as "perhaps the most preposterous piece of imaginary geography in existence" (Bancroft, 1886, p. 158), shows a number of imaginary islands southeast of the Kamchatka coast together with the islands of Ajak, Kanaha, Tschepchina, Tahalan, Atcha, Amlai. Kodjak, and Umanak. These can presumably be identified respectively as Adak, Kanaga, Sitkin, Tagalak, Atka, Amlia, of the Andreanof group, and Kodiak and Umnak. The similarity between this group of islands and those mentioned by Scherer as having been discovered by Lieutenant Synd will be noted, as will the fact that Scherer has confused the voyage of Synd with the unrelated and, of course, much earlier discovery of islands in the Aleutian chain by the Bering expedition. Masterson and Brower (1948, footnote 19, p. 5) have suggested that Stahlin was Scherer's source of information and that the vagueness of the former's account of the Synd expedition is responsible for Scherer's confusion.

18This is one of the earliest references to the expedition of Krenitzin and Levashev, but Scherer apparently did not have access to the official documents concerning the voyage. The earliest full account is given by Coxe who abstracts journals of the two naval officers which were not previously known even to Russian readers (Coxe, 1780, pp. 251-66). According to Bancroft, who also gives an account based on the journals, the expedition was organized because it was thought desirable to have the discoveries being made by the promyshlenniki confirmed by naval officers. Krenitzin spent the winter of 1768 on Umnak Island and Levashev wintered on Unalaska. Both parties suffered greatly from scurvy and the unfriendliness of the Aleuts, and returned to Kamchatka in the summer of 1769 having accomplished little in the way of exploration (Bancroft, 1886, pp. 159-67). The Krenitzin and Levashev expedition was expected to join with Lieutenants Chichagov, Panov and Babayev who had been instructed to sail from Archangel in the White Sea and coast eastward along Siberia to pass through Bering Strait (Bancroft, 1886, p. 194; Tompkins, 1955, p. 19). Although the two expeditions never met, the secrecy surrounding their activities resulted in confusion typical of that found in Scherer's account. Krenitzin was drowned at the mouth of the Kamchatka River and not at Archangel.

19Steller's journal was edited and published at St. Petersburg in 1793 by the German naturalist Peter Simon Pallas, both serially in volumes five and six of his *Neue nordische Betrage* and separately in booklet form. An abridged English translation appears in Coxe (1804, pp. 30-93), and a complete annotated translation is to be found in Golder (1922-25, II).

20In his journal, Stellar reports that he questioned traders, travelers and cossacks in Kamchatka concerning the area where Asia and America most closely approach each other (Golder, 1922-25, II p. 99). Although the name of the place is not given, it is clear from Krasheninnikov that the Chukchi Peninsula is the location he had in mind. Scherer appears to have taken most of his information concerning Steller's views on the separation of Asia and America from Krasheninnikov who maintains that Steller, while believing that the two continents most closely approach opposite the Chukchi Peninsula, also thought that they remained close to each other throughout the whole area from latitude

fifty-two degrees to sixty degrees north. According to Golder (1922-25, II pp. 99-100), this view is reflected in the great southwest projecting land mass that is shown in the St. Petersburg Academy of Sciences map of 1758. Krasheninnikov maintains that it was the nearness of the two continents that led Steller to believe that they had at one time been connected. The latter also noted that the outline of the two coasts appeared to indicate violent separation as did the numerous capes which project into the sea. The number and situation of the islands between Kamchatka and America suggested to Steller that they had once been part of a continuous mainland (Krasheninnikov, 1764, pp. 44-45).

21These and other obsolete geological opinions are only suggested in Steller's journal (Golder, 1922-25, II pp. 54-55). Similar views with regard to the earthquakes of Kamchatka are attributed to Steller by Krasheninnikov (1764, p. 77).

²²Actually, Steller merely states that the aboriginal Americans probably "possessed cutting tools of copper" (Golder ,1922-25, p. 53). In another place he cites evidence for the use of bone or stone axes similar to those used by the inhabitants of Kamchatka (Golder, 1922-25, II p. 46).

23One verst is roughly equal to two-thirds of a mile.

²⁴For Steller's description of the topography and geology of Bering's Island, see Pallas (1781-96, II pp. 255-301, translated in Golder, 1922-25, II, pp. 193-202). The quotation attributed to Steller does not occur in this paper, but there are references to earthquakes that occurred while Bering's party was on the island (Golder, 1922-25, H pp. 198, 205, 207).

²⁵Nearly all of this material concerning the inhabitants of the area visited by the Bering expedition is taken from Steller's journal (Golder, 1922-25, II pp. 44-49, 90-105).

²⁶This vague generalization concerning social structure is not found in Steller's journal.

²⁷Steller correctly notes the resemblance between these boats, which he observed off Bird Island, and those used by the Eskimos of Greenland (Golder, 1922-25, II p. 96).

²⁸Steller discovered a fire drill along with other evidence of human occupation near the landing place on Kayak Island (Golder, 1922-25, II p. 45).

29This is a reference to the wooden vessel brought back to the ship by Khitrov who had gone ashore on Wingham Island for the purpose of exploration. The arrows were found by Steller in the semi-subterranean habitation on Kayak Island (Golder, 1922-25, II pp. 52, 48-49).

30This whetstone was one of the objects brought back to the ship by Khitrov and may have been used on some copper implement (Golder, 1922-25, II pp. 52-53). Steller says nothing of having seen hatchets made of copper, but he did see iron knives which he presumes, quite correctly, were obtained in trade with the peoples of northeast Asia (Golder, 1922-25, II, pp. 97-98). The inhabitants of this area did not, of course, trade directly for these implements, but rather maintained contacts with people farther north who in turn had direct trade relations with the peoples of the Asiatic mainland. The smelting of iron ore was not known by any American aborigines. Compare Scherer's reference to the whetstone with that in the manuscript copy of Stellar's journal discovered by Golder in the archives of the Academy of Sciences at St. Petersburg in 1917 (Golder, 1922-25, II footnote 100, p. 53).

31This appears to be a reference to the dried fish which Steller found on Kayak Island (Golder, 1922-25, II pp. 44).

32Steller gives a detailed description of sladkaya trava in his Beshreibung von dem Lande Kamtschatka (1774, pp. 84-87). Stejneger pictures and describes it from Bering Island (Stejneger, 1896, p. 25, pl. 15a). This so-called sweet grass is the cow parsnip, Heracleum lanatum, and was found by Steller on Kayak Island (Golder, 1922-25, II pp. 44-45, 48).

33These items were found by Steller in the semi-subterranean habitation on Kayak Island. According to Golder (1922-25, II footnote 90, p. 48), Khlynov and Vyatka were two neighboring villages in Steller's time. In 1781 they were combined with two others to form the present city of Vyatka on the river of that name, approximately in latitude fifty-eight degrees north.

34Steller believed, probably correctly, that these so-called nettles, found in the house on Kayak Island, were used in the manufacture of fish nets (Golder, 1922-25, II p. 48). It should be pointed out that most of the items found by Steller and Khitrov on Kayak and Wingham Islands could be of either Eskimo or Eyak origin. The wooden bucket brought back from Wingham Island by Khitrov's party is, however, typically Eskimo and Birket-Smith (1953, pp. 8-9, 28) has shown that Kayak Island and the adjacent region belonged to the hunting ground of the Chugach Eskimo. Although there were no permanent villages on the island, the Chugach maintained hunting camps similar to the one encountered by Steller (Golder, 1922-25, II pp. 48-49).

35The Aleuts observed by Steller on Bird Island in the Shumagin group were dressed in these waterproof garments which were probably made of seal rather than whale intestine (Golder, 1922-25, II pp. 96-97).

³⁶Steller's brief contacts with the Aleuts would not have permitted him to make observations concerning such aspects of social culture as pregnancy and birth. This information appears to have been added by Scherer and was perhaps taken from contemporary accounts of the aboriginal inhabitants of northern Asia.

37Steller noted the use of labrets as well as other forms of facial adornment by the Aleuts he observed off the coast of Bird Island (Golder, 1922-25, II pp. 92, 103).

 38 There are no references to the use of dog transportation in the journal but Steller must have been familiar with it during his travels in Kamchatka and northern Siberia.

³⁹In his journal, Steller describes the typical Aleut hat at the time of his second encounter with these people off Bird Island (Golder, 1922-25, II pp. 102-03).

⁴⁰Although Steller has little to say in his journal concerning the language of the Aleuts, it is clear that these people would not be able to understand the Koryak interpreter who was with the expedition, since the languages are unrelated (Golder, 1922-25, II pp. 93-94). The Chukchi, Koryak and Kamchadal languages are usually grouped into a single closely related linguistic stock that has been though to exhibit structural similarities with the Indian languages of the northwest coast of America (Jochelson, 1930, p. 454; Jakobson, 1944, p. 603; Chard, 1953, p. 19).

⁴¹Steller, of course, had no knowledge of contacts between the Aleuts and the Japanese, and this is obviously an addition of Scherer's possibly based on information concerning Japanese shipwrecks on the coast of Kamchatka.

VANSTONE

42A reference to the writings of Joannes de Laet (1593-1649), and Georg Horn (1620-1670).

43This work, written by the historian Abulgasi-Bayadur-Chan, was published in 1726.

44Published in Paris in 1739.

45These naive and obsolete opinions concerning the origin of the people with whom the Bering expedition came in contact are in marked contrast to Steller's reasoned comments concerning resemblance between the artifacts that he found and those of the Kamchadal and other peoples of northeast Asia and his careful attempts to document instances of trade between the Chukchi and the peoples of northwest Alaska (Golder, 1922-25, II pp. 46, 97-99).

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ON THE DISTRIBUTION AND TERRITORIES OF THE WESTERN KUTCHIN TRIBES

FREDERICK HADLEIGH WEST

A number of years ago, Robert McKennan (1935, p. 369) brought to light the existence of a ninth tribe of the Kutchin-speakers of northeastern Alaska and adjacent Canada. These were the Dihai Kutchin the remnants of whom, he said, had "two generations" previous to his writing deserted their former territory about the north fork of the Chandalar and the headwaters of the Koyukuk, and had moved in among, and been assimilated by, the neighboring NEdse [sic] Kutchin.

In the course of study among another of the Kutchin groups more information of the Dihai Kutchin has been brought to notice which may help supplement that of McKennan. First, the name as heard by this writer was rendered Dihain Kutchin, with the second syllable of the locational prefix strongly nasalized. Secondly, the Dihain Kutchin have not quite passed completely out of the ethnic picture. There are yet living at the village of Venetie on the Chandalar River at least two individuals who claim this tribal affiliation. There are also one or two in Fort Yukon. Moreover, these individuals retain the ability to speak at least some of that language, which, in fact, one did in my presence. Even to one possessing but little of the western Kutchin tongue, the language sounded rather foreign. My interpretor, a Tranjik Kutchin, professed to find it almost as difficult as the non-Kutchin Han. However, on the basis of what I was told by the speaker as well as the interpretor, there is little doubt that it is rightly included in the Kutchin language. It may be that the apparent aberrance represents a dialect level of differentiation. This question will have to be decided by a competent linguist. Fortunately, there are now present in the area representatives of the Summer Institute of Linguistics. It is greatly to be hoped that in the course of their work they will record this speech and clarify its position in Kutchin. Otherwise, in a very few years it will, indeed, have become extinct.

A word may now be said regarding the former territory of the Dihain Kutchin. My informant specifically mentioned the village of Wiseman (the Arctic Village of Robert Marshall [1933]) as being within their area, which, of course, tallies with the information given McKennan. My informant seemed to feel that place lay squarely in the country of the Dihain Kutchin. There are said to be no Indians now living at Wiseman. It is most unfortunate that Marshall in his work on that settlement did not record at least the designation of the few Indians who were there in 1929. It was further stated that the middle fork of the Chandalar and the Chandalar proper to some little distance below the present village of Venetie were also within their country. There is, in any case, the very good possibility that elsewhere in their traditional area there yet remain other individuals of the Dihain Kutchin.

Accompanying this note is a map portraying the distributions of the nine Kutchin tribes. For the most part this follows Osgood

(1936), but it embodies also the data presented here and by McKennan. Pending future investigation and confirmation, the boundaries shown for the Dihain Kutchin should be viewed with some skepticism. The core of the area should, however, be correct. It is of some interest that Driver and Massey (1957, end map) in their recent work fail to show the Dihain Kutchin along with the rest of the Kutchin tribes. Swanton (1952, map 2) has erred in that he has placed the Natsit [sic] Kutchin, if not certainly within the territory of the Dihain Kutchin, at least without their own area. The same error may be observed in the distribution shown by Cadzow (1925, Pl. 11) and later by Osgood (1936, Fig. 1). This, then constitutes a rather important revision of the foregoing.

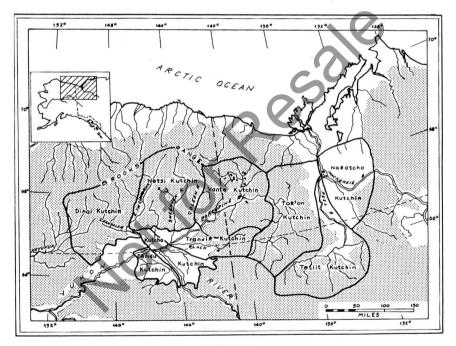


FIGURE 1.

Distribution of Kutchin tribes. Shaded areas are highlands of 1,000 feet, and higher, elevation. Except for revisions indicated in the text and those consequent thereto affecting neighboring groups, the distributions shown follow Osgood (1936).

The proper placement of the Netsi (Natsit, NEdse, Natche, etc.) Kutchin¹ is only fully appreciated when seen in relation to the

¹This was recorded from the speech of people of this tribe as Nets, 'Kuit/ch(n. Kutchin is sufficiently close to the latter. In the former, the glottal stop is frequently barely audible and hence, in the interests of an easier orthography, has been left out.

topography of northern Alaska. Unfortunately, this raises again the vexing question of Kutchin tribal terminology. The Netsi Kutchin have never lived on the Chandalar River proper. As their name implies they are hill folk, traditionally shunning as somewhat unwholesome the flat lands to the south of them. Their southern boundary, and they are most specific on this point, coincides with the edge of the piedmont that marks the beginning of this segment of the Brooks Range. They did not even make any very great use of the southern part of their own country. They considered it "too brushy" and much preferred the more open country to the north. (Not tundra as is implied by Osgood's [1936, p. 16] use of the word "barrens".) Their northern boundary may be conveniently drawn along the crest line of the Brooks Range, although they were not, in the past, averse to making some use of the north slopes. To the east, their traditional range extended, apparently, to about the Coleen River which accounts for another modification of the Osgood map. The situation here, however, is not too clear; perhaps this line should be drawn somewhere between the Sheenjek and Coleen rivers. The Sheenjek, at any rate, must be included. Osgood's western boundary for the Netsi Kutchin should be moved eastward. A more correct placement would find it just west of, and roughly paralleling, the East Fork of the Chandalar River.

The terminological problem raised by this turns about the propriety of referring to a people as the "Chandalar" or "Chandalar River tribe" when they have no connection with that river other than (formerly) an occasional occupance of one of its major tributaries, the ill-named East Fork of the Chandalar. One becomes involved here in an almost inextricable difficulty. The name "Chandalar", which occurs now in at least six place-name connections, is apparently derived from the term gens du large applied to the Netsi Kutchin by the French Canadians of the Hudson's Bay Company. Therefore, it would appear the name must have been applied at least once to commemorate the proximity of the Netsi Kutchin. Beyond this presumed point the name appears to have reproduced itself parthenogenetically. Today, and for some time in the past, the phrase "Chandalar country" has been used to describe an area generally west of the traditional country of the Netsi Kutchin. The Chandalar mining district centers about Chandalar Lake on the North Fork of the Chandalar River. As indicated above, this is the old territory of the Dihain Kutchin. Thus, although the priority of usage of that dubious term must be awarded the Netsi Kutchin, its primary connections now and for some time past have been with places outside the traditional territory of the Netsi Kutchin. It is suggested that in recognition of the place-name associations of the term Chandalar, their own designation, Netsi Kutchin, be employed in future references to those people. The literature pertaining to these people is too sparse and the terminology too variable for any one term to be considered entrenched beyond recall. The fact, too, that this is their own term surely commends its usage.

Finally, a very tentative suggestion may be made concerning the origin of the confusion over the Dihain Kutchin-Netsi Kutchin territories in relation to the term Chandalar, McKennan (1935, p. 369) surmised that the reason the Dihain Kutchin apparently never came to the attention of the early writers was that they seldom came down to Fort Yukon to trade. This must certainly be correct. It may be further suggested that when they did come in they were confused with the more numerous and better-known Netsi Kutchin and were awarded. with them, the appelation gens du large. The territories of both lay generally north and west of Fort Yukon in country that remained largely unexplored until well after the time of Alaska's purchase. In other words, this was terra incognita to most, if not all, of the individuals who wrote the early accounts of the Kutchin peoples in Alaska. As such it would not be surprising that the two groups should have been comprehended under the one term. There is abundant precedent for this kind of confusion, as witness the chaos that formerly existed in the improper extension of the suffix Kutchin itself (cf. Osgood, 1934). While admittedly speculative, this would seem to offer a plausible explanation for the confusion of names.

It is hoped these notes will be of some aid in clarifying the question of distributions and nomenclature of these westernmost representatives of the Kutchin-speakers. The familiar pattern has already set in: tribal distinctions are often to be found existing only in the minds of older people. It will not be too many years before these will have been completely obliterated and entirely beyond collecting. Let us hope our ethnographic houses will be in order before that time.

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