

ARCHAEOLOGY OF THE
HOPEDALE AREA, LABRADOR

JUNIUS B. BIRD

VOLUME 39 : PART 2
ANTHROPOLOGICAL PAPERS OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
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INTRODUCTION

IN 1927, through the courtesy of Mr. George Palmer Putnam, the writer had an opportunity to visit the eastern and southern Labrador coasts. Although only a limited time was spent there, it was sufficient to provide a reasonable understanding of the geographical differences in the area between Cape Chidley and the Strait of Belle Isle to Bradore Bay in southern Labrador. On several subsequent trips with Capt. Robert A. Bartlett, we again landed and cruised along the eastern coast, but had no opportunity to make any excavations. In 1933, during one of these trips, we stopped at Hopedale and made a partial surface survey of the old ruins located there.

This preliminary experience finally proved useful in 1934 when it became possible to devote a season to actual digging. In planning this work the vicinity of Hopedale was selected because of several considerations and possibilities. It was known that a sufficient number of ruins were available to justify excavation here during one summer season; also that these ruins were of different types and, to judge from their state of preservation, of various ages. A more theoretical consideration was based on a general comparison of the physical structure and general ecological conditions along the entire coast. If we grant that the original Eskimo occupation spread from north to south, then it must be admitted that on their arrival in the

Hopedale area the Eskimo were not familiar with a better environment and that much of the territory with which they were acquainted to the north was less desirable. Farther on, to the southward, there is no marked or abrupt improvement in the conditions affecting native economy which might serve as an incentive for further migration. Thus it seemed reasonable to expect that a careful examination of the settlements near Hopedale would yield some trace or record of all phases of the Eskimo occupation of the central and southern Labrador coasts.

Permission to carry on this archaeological work was very kindly granted by the government of Newfoundland. The Moravian Missionary Society allowed us to work on their property and the Rev. W. W. Perrett of Hopedale did all in his power to aid us. To Capt. Robert A. Bartlett we are indebted for sympathetic interest and advice, as well as for transportation from New York to Hopedale and back. Several kind friends helped to furnish the necessary equipment. A grant from the Frederick G. Voss Anthropological and Archaeological Fund of the American Museum of Natural History made it possible to hire an assistant for the season. The actual excavation was done by Mrs. Bird and myself, assisted by Heinrich Ursak, an "Irishmo," as he put it, one grandfather having been Irish, the other, Eskimo.

HISTORY OF ESKIMO-EUROPEAN CONTACTS

As the known history of the Labrador Eskimo has already been thoroughly reviewed elsewhere,¹ it need not be repeated here. The same publication includes an account of the important geographical and environmental features of Labrador, simplifying still further the requirements for the present paper. Thus we can confine ourselves to an account of the field-work, a description of the material recovered, and an estimate of the results in the light of our present knowledge. As the latter partially involves some of the recorded history of European exploration and occupation, a

brief summary of the most pertinent items and dates seems necessary here.

When we search the history of Labrador for items pertaining to the development of European contacts with the native population along the east coast, we find little which is not disappointingly vague.² The scanty records of the voyages of the Cabots and those who followed them during the sixteenth and seventeenth centuries are almost as unsatisfactory, if not more so, than the oft-quoted Norse accounts. Few of the data are not open to argument.

¹ All dates and information, unless otherwise noted, are from Gosling, 1911.

¹ Hawkes, 1916.

The Norse may have visited the central portion of the coast in 1000 A.D. Somewhere they met people, who from their description must have been Eskimo, for their references to these natives fit none of the known Indian groups of eastern North America, but are applicable to the Eskimo. Later, they may have made a number of unreported voyages to obtain timber. These voyages may have continued as late as 1347. Presumably, in 1497 John Cabot was the next European to visit the coast. Following his lead some of the barely indicated fishing voyages from Bristol to the "new found isles" in the first third of the sixteenth century may also have ventured this far north. Almost all the known records before the eighteenth century leave too much to the imagination. Much may be implied, but little is specific.

The few maps that are extant demonstrate a gradually increasing knowledge of Labrador during the sixteenth century, though all too frequently the source is unrecorded. By 1569, however, Mercator was able to produce a map which may be interpreted as a fairly accurate conception of the eastern coast of Labrador.

One item worth noting comes from the records of the Frobisher voyages to Baffin Island.¹ In 1576 he found the Eskimo of Frobisher Bay, 600 miles north of Hopedale, in possession of a box of nails and a "tryvet of yron." Others were using iron for some of their arrowheads. The metal must have been fairly abundant if the Eskimo adapted it to this implement, for wherever iron was scarce its use seems to have been confined mainly to blades for tools. This appears to have been true at Cape York, Greenland,² where meteoric iron was procurable and on the northeast Greenland coast where drift iron was available. It is a reasonable argument against the possibility that Frobisher's Eskimo obtained iron by trade from Greenland. Through the Frobisher visits, the people of that section must have acquired sufficient iron to last for several generations, for as late as 1862 Hall³ found a large piece at the site of the old mine. Stefansson concludes that the evidence indicates that

ships were visiting the Baffin Island coast prior to Frobisher's voyages.

In the light of our finds at Hopedale it is worth repeating here Hall's record of the bricks or tile, as well as glass and pottery, abandoned by Frobisher's party. This brick or tile was widely scattered by the natives, apparently through no other motive than curiosity. One man showed Hall a piece, saying that many of his friends had similar fragments.⁴

The first really specific records of visits to the east coast concern the two voyages by John Davis. At the end of August, 1586, he sailed 30 miles into what may be the present Davis Inlet, but Eskimo are not mentioned. He anchored farther south, probably in Sandwich Bay, where two of his men were killed and three others wounded by natives. The following year he left two fishing vessels in that same section while he cruised northward. This is the first reference to fishing north of the Strait of Belle Isle. Their success must have encouraged later voyages for the same purpose.

Very little usable information is recorded for the next 115 years. After 1600 Eskimo well north of Hopedale are occasionally mentioned as having killed or fought with Europeans on exploring expeditions. We cannot tell what influences, if any, may have filtered up the coast from the vicinity of the Strait of Belle Isle during this time. Opportunities to secure articles of European manufacture from that direction probably increased, but it must also be noted that as late as 1706 the English fisheries were chiefly on the lower third of the Newfoundland east coast and those of the French principally westward of Cape Race along the south side of the island. The extent of the fishing farther north has never been recorded.

During the latter part of the seventeenth century Basque fisherman had whaling or fishing stations at "Brasdor," Forteau, and St. Benoits in southern Labrador. These are supposed to have been abandoned because of repeated attacks by Eskimo. Whatever the reason, the fishing stations were deserted by 1702 when the governor of New France granted the Seigneur de Courtemanche a trading concession covering the territory from the Kegashka River up to Hamilton Inlet. The post

¹ Stefansson, 1938, vol. 1, lxiii, lxiv, 125, 126, 240, 241.

² Conclusion drawn from archaeological collections now in the Museum of the American Indian, Heye Foundation, gathered by the author at Cape York in 1933 and northeast Greenland in 1930.

³ Stefansson, 1938, vol. 1, cviii.

⁴ Stefansson, 1938, vol. 2, 241.

built shortly afterward, at what is now Bradore, was the first permanent establishment in Labrador and continued in operation until 1758. As far as is known, trading was confined to the local Indian population, in spite of Courtemanche's serious efforts to gain the confidence of the Eskimo.

The Courtemanche records are the first to mention Eskimo possession of firearms. He reported that in 1716 a large band arrived near his post. As they had a variety of firearms he assumed that some Europeans were living among them.

One naturally wonders what, if any, influence this station may have had on the Eskimo and how far north its effect was felt. A partial answer may be found in the remarks about a voyage made in 1729 by an American whaler, Captain Atkins. Returning from Davis Straits he landed at several places southward of Davis Inlet. He met no people until near latitude 53°40' where he exchanged various articles with a party of Eskimo for "whalebone," i.e., baleen. They had no firearms. From their actions it was supposed that they had never traded with Europeans or Americans. This opinion, expressed later by a friend of Atkins, is open to argument.

Apparently Captain Atkins stopped along the Labrador coast in the course of several different voyages, making his last visit in 1758. He encouraged others to follow his example and, as the importance of the Labrador whaling grounds became apparent, an increasing number of whalers appeared there annually. By 1766 it was reported that between 200 and 300 whalers came from the American colonies each year. The extent of their trade with the Eskimo is not mentioned, but their treatment of the natives has been described as barbarous and lawless.

Meanwhile the Moravian Brethren had become interested in the Labrador natives and in 1752 attempted to establish a mission at Ford's Bight at latitude 55°10'. A house was erected, but the murder of some of the ship's crew by Eskimo led to its abandonment that same year. According to the Reverend Mr. Perrett the remains of this house are still visible and tile or brick may be found there. It is the oldest known European structure on the east coast.

The following year another American, Cap-

tain Gillam,¹ stumbled on the spot and he describes a timber house with a brick and stone chimney. Eskimo in the district possessed boats "built after the Newfoundland manner," and refused to trade with him for hoop iron. The same season he met Captain Goff of London, who told him that the Eskimo wanted files and knives. In other words, by that time they had plenty of iron. Goff's experience with an Eskimo man who kissed him on both cheeks, by way of greeting, led him to assume that they were accustomed to deal with French traders.

Some years later, after more thorough preparation, the Moravians returned, gained the confidence of the natives, and in 1771 built a mission at Nain. They erected a mission at Okak in 1776 and another at Hopedale in 1782. As a matter of policy these missions also functioned as trading posts.

In the interval between the construction of the Ford's Bight and the Nain buildings, the English in 1767 had erected a "defensible house" known as York Fort, at Chateau Bay, Belle Isle Strait. For eight years a small garrison was maintained here to enforce regulations governing the fisheries. Failure of this objective resulted in its withdrawal.

In 1770 Capt. George Cartwright occupied an abandoned whaling and hunting station at Cape Charles, a few miles north of York Fort. He established and maintained peaceful trade relations with the southern Eskimo for 15 years, being the first person known to do this successfully.

This summary covers the pertinent historical data to the time when permanent contact was established with the Eskimo and detailed records begin. For further knowledge of the past we must turn to archaeology. It is apparent that it is almost impossible to determine exactly when the pure Eskimo culture first began to receive European influences. The first item of importance must have been iron, but its mere presence cannot prove direct contact. As in other parts of Eskimo territory, notably northeast Greenland, a small quantity must have come ashore in bits of driftwood and wreckage.² This may well have been the principal source of supply for people living in the

¹ Dragge, 1768.

² For a comprehensive discussion of the distribution of iron in this manner, see Rickard, 1934, 525 to 543.

Hopedale District until as late as the last quarter of the seventeenth century,¹ when they may have been able to obtain some in trade with other Eskimo to the south or by making special trips for that purpose. We cannot ex-

pect to find other objects of foreign manufacture in or about the ruins of their houses datable much before the middle of the eighteenth century.

SITES EXAMINED

During the 61 days available for our work, five sites were examined. The map (Fig. 1) shows their location and the territory covered. Avertok (a place of whales), the largest site, is near the present settlement of Hopedale. Of the 20 ruins found here, nine were excavated. Another important abandoned settlement known as Karmakulluk (place of old low house walls) consisted of only nine ruins, all of which were excavated. At Anniowaktook Island, about 4 miles east of Hopedale, an examination of the midden refuse in front of one of the four ruins was sufficient to place them culturally. At Napatalik (island of plenty trees) Island, 8 miles north of Hopedale, one of two large ruins was cleared. Of nine ruins found on Iglosoataligarsuk (little island of old houses), 8 or 9 miles up the bay from Hopedale, three were excavated.

¹ Coming from Baffin Bay the Labrador current may seem an unlikely carrier for drift iron, except from vessels lost west of Greenland. But it must be remembered that this current is derived in part from the waters north of Iceland, flowing south around the end of Greenland. In turn, the district north of Iceland receives some waters from the currents flowing northward off Norway.

The extremities of the district examined lie 26 miles apart. From our own observations and the reports of the local residents, it is believed that most, or at least a fair percentage, of the available ruins were seen. Of the 44 found, 22 were excavated and enough midden refuse examined to provide data for seven others.

All the house ruins seen, both excavated and unexcavated, can, on the basis of their plans, be classified as variants of three main types. Although these will be described in detail in subsequent sections, a brief statement here will simplify the text:

Type I is primarily a small, rounded, single-family house with a bed platform at the rear. The a, b, c subdivisions under Type I refer to its smallest form; a wider variation; and a two-room structure, each room of which is really an individual unit similar in arrangement to the two preceding.

Type II is a two-family structure, rectangular in outline, with two sleeping platforms, one at each side of the floor.

Type III is a large, rectangular, multiple-family house with an irregularly shaped floor and an extended sleeping platform along the rear and side walls.

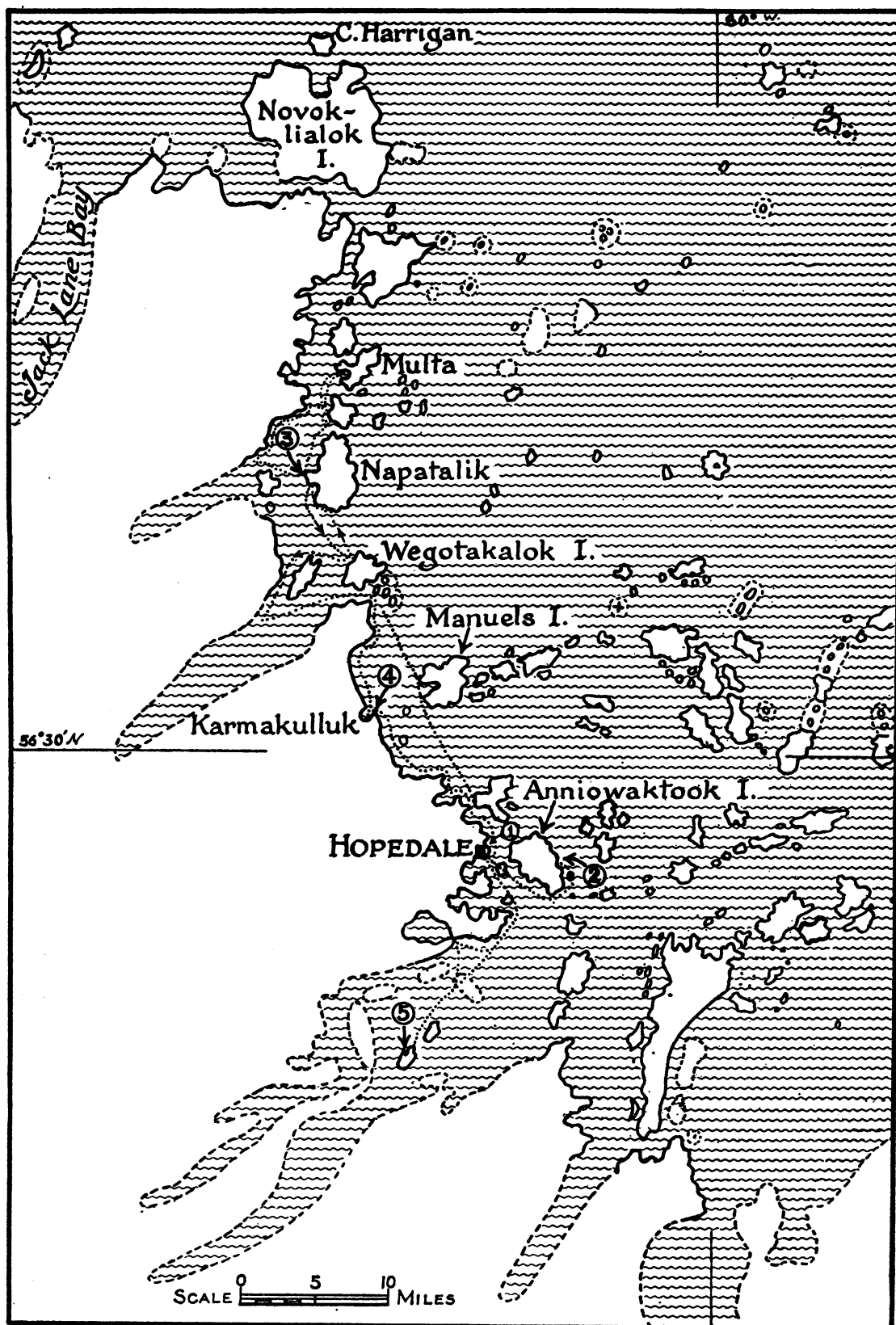


FIG. 1. Map of the Hopedale area, Labrador.

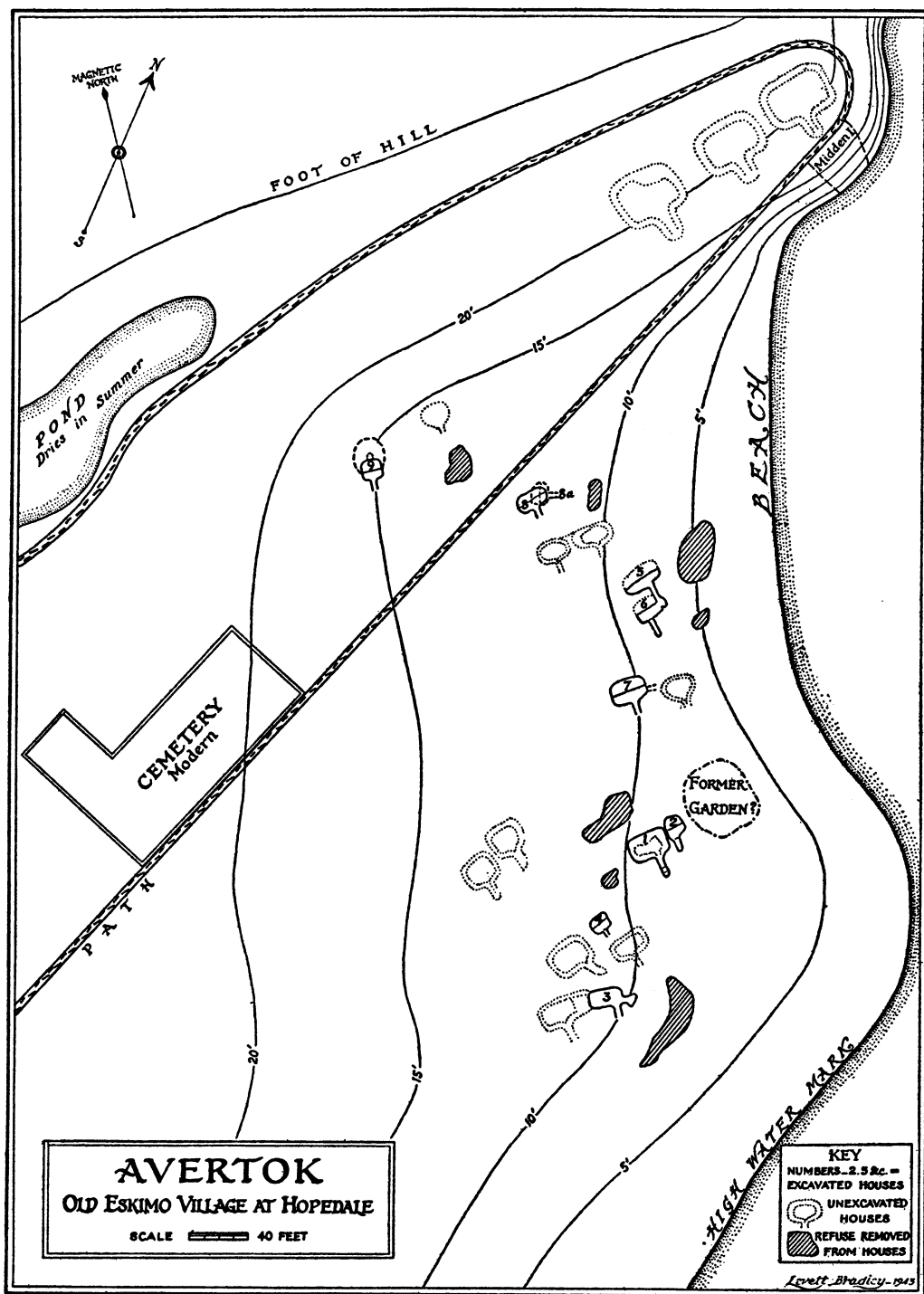


FIG. 2. Plane table survey of Avertok, Site 1.

AVERTOK, SITE 1

THE SITE for the present Hopedale mission and settlement was selected by the Moravians because of the good anchorage and landing. Prior to the establishment of the mission, and even after it was started, the natives had preferred the eastern side of the same promontory. Part of it, near the beach, is fairly level grass-covered ground, on which 20 ruins were found (Pl. 9 and Fig. 2), and nine excavated. Of these, three of the structures had been built on top of somewhat older houses. In clearing them, the dirt removed was dumped, as indicated on the map (Fig. 2), on places where there were no traces of houses or midden refuse, to forestall possible misinterpretation by any future archaeologists.

Most conspicuous are the three large house ruins¹ located side by side on a flat-topped bank along the base of the hill to the north of the flat ground. All are rectangular, with thick wall ridges of turf. Interior measurements are as follows: lengths, 38, 33, and 35 feet; widths, 20, 18, and 26 (?) feet; tunnel lengths, 16, 18, and 18 feet. As these all were obviously post-mission structures, and as time was limited, they were not excavated. The measurements, therefore, are only approximate. In other ruins which were measured before and after clearing, the first figures were found to be slightly smaller than the final ones. In any case, it is fairly certain that their floor plans are similar to those of House 1, Site 1, and House 1, Site 3 (Pl. 10a and Fig. 4f, g).

The only *bona fide* layer of midden refuse in the whole settlement lies on the steep slope in front of these three houses. About 900 square feet of this refuse was excavated. It varies in thickness from a few inches at the bottom of the slope to a maximum of 20 inches at the crest. The midden rests on clean sand and consists of unstratified black earth, with some rotted bones, and a considerable amount of mussel shell. All but a small quantity of this deposit was found to have thawed by July 18. Because of the angle at which it lay, and the lack of uni-

form depth, the relative age of objects found in it cannot be based with any certainty on their position. This does not matter particularly, as it was found that direct white contact material, such as china and glass and manufactured iron objects, was abundant throughout.

The full list of objects found is included with the record of the contents of the Type III houses.

The first ruin cleared (Fig. 4g) yielded lead, iron, and tile, and discouraged further excavation in ruins of similar form and state of preservation. After this, with one exception, only the older, most broken-down houses were uncovered.

A comparison of the house plans shows several possible types or variations. The features common to all are: walls entirely of turf, except for the sides of the tunnels which are usually faced with stones; sand and gravel sleeping platforms usually faced or edged with stones; paved floors; and the use of timber instead of stone or bone for entrance tunnel roofing.

Houses 2, 7, and 8 (Fig. 3d, b, a) are the smallest and are most like the old Thule type ruins found in other parts of the eastern Arctic. Sides and corners are rounded; a single bed platform, without recesses in the forward edge, forms the rear half of the house; one or two shallow meat pits have been dug at one or both sides of the floor paving. Behind or around the pits are small raised platforms of sand, faced with stone, usually at about the same elevation above the floor paving as the sleeping platforms. In House 2 it was evident that lamps had been placed on the platforms as shown on the plan (Fig. 3d). To simplify the comparison of ruins at the various sites this form is designated as Type Ia.

House 8 had been built on another house of apparently the same pattern. A portion of the original floor paving had been left intact and formed part of the final floor, while the rest was covered with sand and stones when the new sleeping place was built. Except for the tunnel, the original floor and outline are not indicated on the plan of this ruin (Fig. 3a). This was also true of House 7; but as most of

¹ When Dr. Duncan Strong stopped here with the Mac-Millan party in 1927 he did a little test digging in one of these ruins and found iron abundant. Lack of time prevented the clearing of the interior. (Personal communication.)

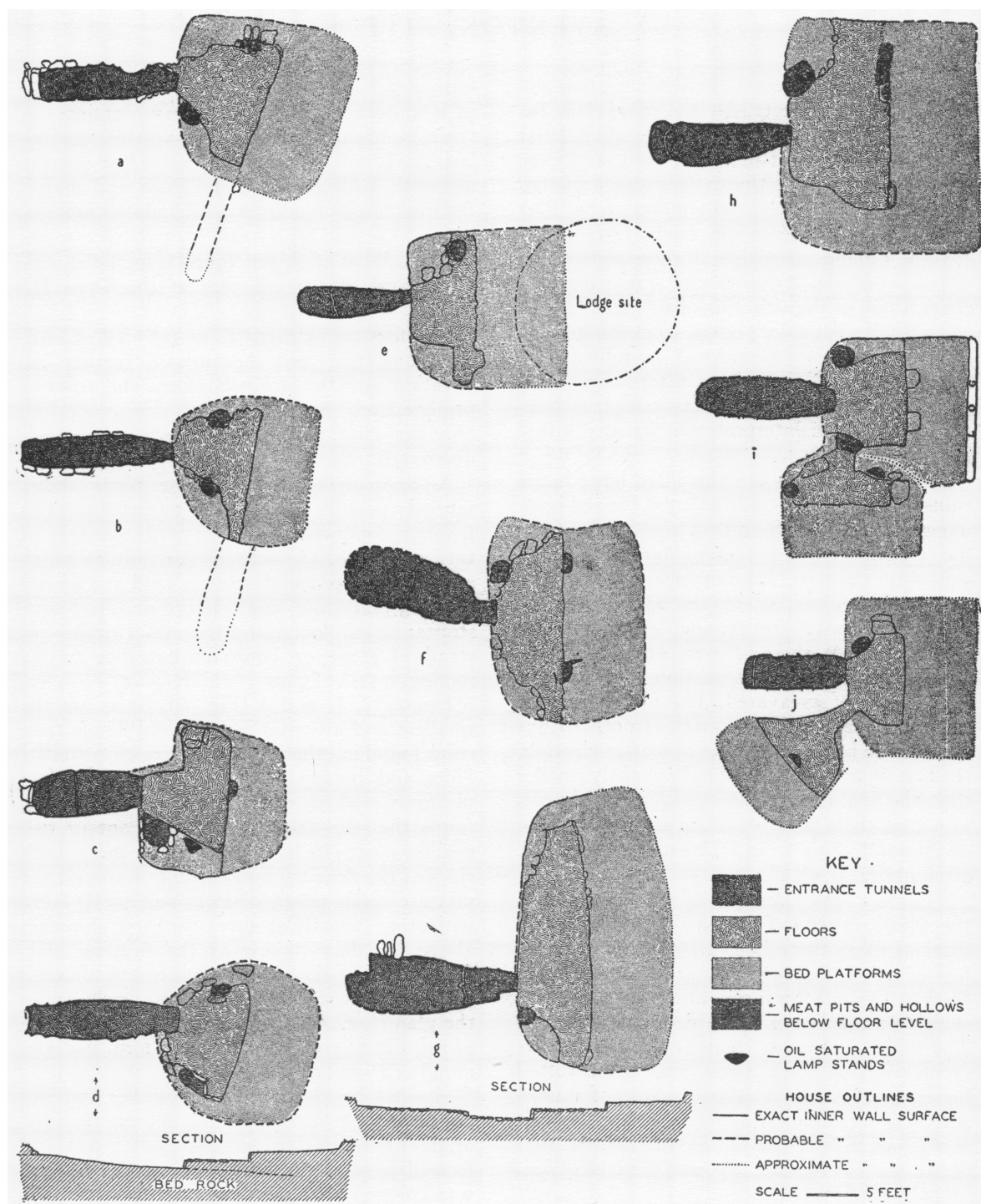


FIG. 3. House Types Ia, b, c.

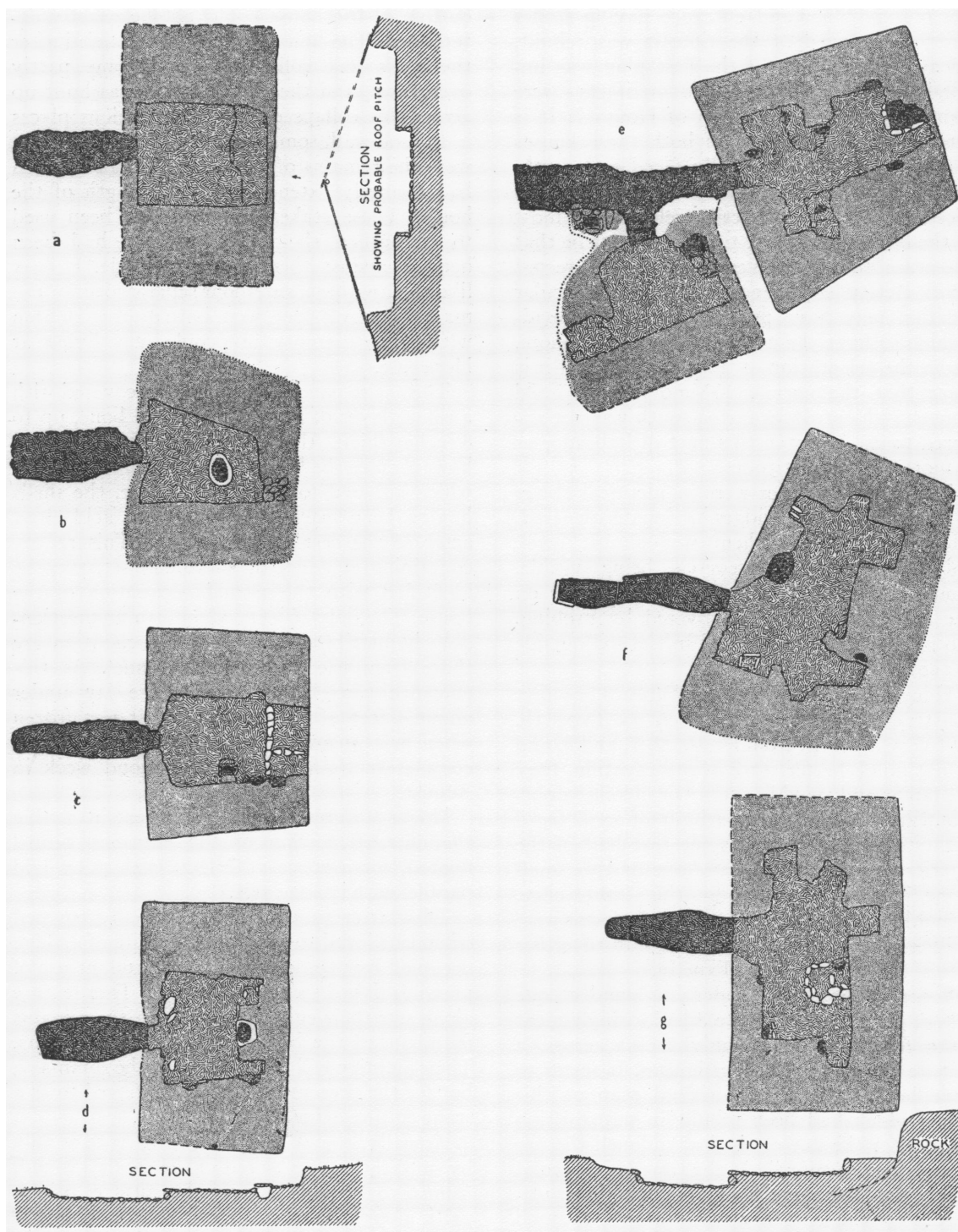


FIG. 4. House Types IIa, b, and III.

the original floor and entrance paving stones had been moved at the time it was rebuilt, an accurate tracing of the first plan was impossible. Unfortunately, no artifacts were found in the oldest portion of House 7. It is interesting to note that in both these houses the entrances had originally faced east-northeast toward the beach, but had been changed to face southeast, the direction selected for most of the other later house tunnels. Can it be that these are among the very first houses erected here? Actual experience with this particular location may have proved that it was inadvisable to have the entrances facing the shore. From the orientation of the ruins at Site 4 it is clear that the normal Eskimo rule to build houses with entrances facing south was not adhered to as closely in this part of Labrador as in more northern latitudes.

These three houses were in identical states of preservation, wall ridges having disappeared. The surface above them was almost level, only very slight depressions being visible. Houses 7 and 8 were completely invisible on the surface and were discovered by probing. No midden refuse remained in the sod outside the entrances.

Houses 4, 5, 6, 9, and probably 3, as first constructed, have been classed as Type Ib. Not very different from Houses 2, 7, and 8, and in not much better state of preservation, they are larger and roughly square or oblong in outline. Single bed platforms built of sand faced with stones extend across the rear half of the interior. Usually these have one or two small stone-lined recesses along the front edge. Roughly paved extensions of the platforms were built along the side walls and out to either side of the entrance as in Type Ia.

Scooped out of the underlying sand at one side of its entrance, House 3 had a single meat pit a foot deep by roughly 2 feet across, a feature absent in the other houses. It seems to have been part of the original plan of this house which had been rebuilt in post-mission days, after the natives had abandoned the use of an entrance tunnel. At the time of its second occupation the same floor area had been utilized, but the entrance was through a small paved anteroom which may originally have been a second room similar to those in the Type Ic (Fig. 3j) houses at Site 4. No original walls remain in this part of the ruin, so the

outline of the house could not be exactly determined. The house had been remodeled after the walls had collapsed and become partly overgrown, and the new sod wall was built up across this collapsed tunnel. At various places in the sod wall, some of them above the tunnel, were the remains of a row of flat stakes which had formerly extended the full length of the house. These stakes had probably been used to strengthen the walls, and sod had been heaped against them on the outside. Houses like this, with an anteroom separated from the main room by a door, have been used at Hebron within the memory of people now living at Hopedale.

The entire paved floor area was covered with a refuse layer of mussel shells and bone, up to 8 inches thick. All that remains of the mussels, however, are the brown periostracum, the skins which adhered to the outer surface, the shells having been leached away by the acid character of the rest of the deposit. This refuse, containing evidence of white contact, may be identified with the second occupation of the house. The only objects which can unquestionably be attributed to the first occupation are those from the floor of the tunnel. As this entrance tunnel floor and refuse lay under about 4 feet of stones and dirt, it was frozen when first uncovered on July 19 and was not completely thawed until the second week in August.

House 9 differed from the others in having the deepest portion of the entrance tunnel floored, for a space of 7 feet, with poles laid parallel with its long axis.

This latter ruin (Fig. 3e) partially covered what I believed to have been the site of a lodge occupied by people who made abundant use of pressure flaked stone implements. This feature alone sets their culture apart from the remains found in all the house ruins examined by us. Their identity will be discussed in the summary, but for the present, this will be referred to as a stone culture lodge.

Actually, the evidence of a structure is only by implication. Scattered in the sandy ground, from 6 to 12 inches below the surface, principally along the ten-inch level, were some 600 small, thin, translucent quartz flakes and 27 artifacts of the same material. The construction of House 9 had somewhat disturbed their original distribution, but it was apparent that

they were concentrated in a circular area about 14 feet in diameter. A little charcoal remained at the very center, where there had been a fire. Flakes were very rare outside this area; so, although no stake or post holes were visible and no stones which could have been used to weight the edge of a tent remained, it is reasonable to conclude that this was the site of some kind of shelter, perhaps a tent. When it was used no real humus layer was present, but by the time House 9 was erected several inches of sod had accumulated. This was shown by the distribution of the flakes in the portion which

had been left intact and used as the sleeping platform of the house. Thus an appreciable interval of time passed between the occupation of the lodge and the construction of the house. At present this location is exactly 15 feet above maximum high-tide level.

The scarcity of artifacts and the absence of vertical stratigraphy limit our discussion to a description of the objects found, grouped according to house types. At best, we are dealing with an unsatisfactorily small collection which cannot possibly provide a complete check on the material culture of the Hopedale Eskimo.

DESCRIPTION OF SPECIMENS

TYPE IA HOUSES (Nos. 2, 7, 8A, 8B)

FISH LINE SINKERS: On the floor of House 7 was a crudely smoothed, slightly rounded, rectangular block of steatite, possibly a fish line sinker $3\frac{1}{8}$ inches long by $1\frac{1}{4}$ inches thick by $1\frac{1}{2}$ inches wide, with a gouged hole through one end, where it is about $\frac{3}{4}$ inch thick (Fig. 5a). The gouging is from both faces, leaving thin diamond-shaped apertures. On one side, a hollow had been pecked with a sharp, fine-pointed instrument to a depth of $\frac{1}{2}$ inch, perhaps the beginning of an attempt to make a miniature toy vessel out of the block. For no apparent reason, a few strokes with the same tool had been made at the sides of one opening of the line hole. When first cleaned these tool marks had a fresh appearance in contrast to the marks of cutting within the line hole. As no other example of gouged holes in soapstone was found, while drilled holes are common, it may be that this sinker was made by the stone culture group and had been picked up by the later Eskimo. Gouged holes are an element of the Cape Dorset culture, so the occurrence of this feature here might be construed as evidence of the presence of this culture in Hopedale.

WEDGES: The only finished bone object found in the Type Ia houses is a whalebone wedge (Fig. 6) from House 2. It is 5 inches long by $2\frac{1}{4}$ inches wide by $\frac{7}{8}$ inch thick, with a thin sharp point.

COOKING POTS: Of the 20 fragments of steatite cooking pots, only seven have any specific characteristics. All have suspension holes drilled

from the top of the rim to the outside of the vessel. The one from House 7 is a corner piece of a nearly vertical-sided shallow bowl, about $2\frac{1}{2}$ inches deep, with rounded sides, and undecorated rim. Another rim fragment, from the same house, has been grooved on the outer

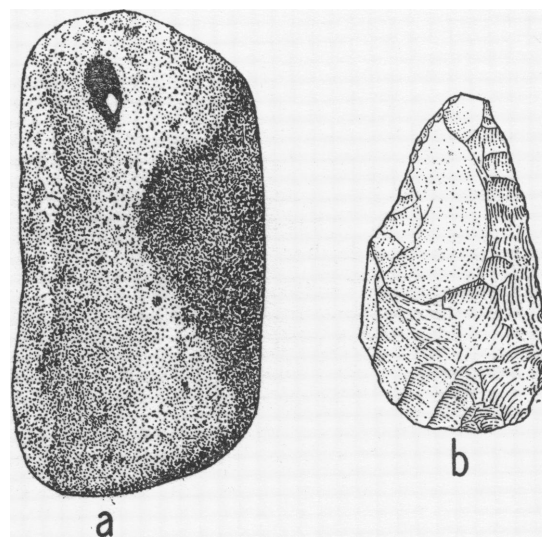


FIG. 5. Fish line sinker and quartz blank, Avertok.

surface, giving the effect of a rounded lip equivalent in height to the thickness of the vessel, which is about $\frac{1}{2}$ inch.

The end of a rectangular vessel, about 10 inches wide by 6 inches deep, was found in House 8a. The sides are nearly vertical. A shallow finger grip 2 inches long by $\frac{3}{4}$ inch high by $\frac{1}{4}$ inch deep has been cut in the center of

the end. The top and outside of the rim are ornamented with two parallel grooves. The two suspension holes at each corner are about $\frac{3}{4}$ inch apart (Fig. 11a). A rim fragment from the same ruin has a similar arrangement of

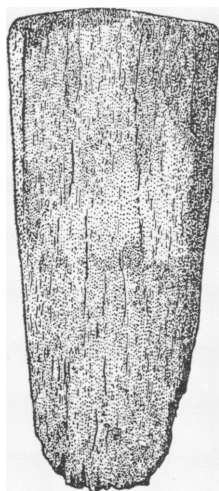


FIG. 6. Whalebone wedge, Avertok.

decorative lines. Another has a single line on top and one outside of the rim, while pieces of a fourth vessel have a rounded rim with no decorative lines. Also from House 8a is a small shallow rectangular dish with vertical sides, 6 inches long by $4\frac{1}{4}$ inches wide and about 1 inch deep inside. It has no suspension holes and may have had higher sides which were cut down after the breakage of the original rim.

From House 8b came the mid portion of one end of a small dish with a square rim and a lip so roughly surfaced that it may be from an unfinished pot. The space between suspension holes near opposite corners measures $2\frac{3}{8}$ inches.

From House 2 we have the lower portion of a corner of a large repaired pot, the sides of which are nearly vertical. The angle formed by the end and side is 120 degrees. The thickness of the bottom and sides is fairly uniform.

LAMPS: Parts of three full-sized well-finished lamps and one toy lamp were found in Type Ia houses. One of them, from House 8a, formerly had a blubber retaining ridge which was cut away after the lamp had broken. Another fragment from the same house is from the rear portion of a lamp, too far back to show whether or not it had the inner ridge. The edge is rounded and undecorated. A smaller adjoining

fragment of the same lamp was found in the interior of House 1. These two houses were not necessarily occupied simultaneously, as other evidence indicates that House 1 belonged to a later period. This small lamp fragment was probably found on the ground around the village. An end piece from House 7 is not large enough to show whether the inner ridge was present.

Among the entrance tunnel paving stones of House 8b was a tiny corner fragment of a small toy lamp with an inner ridge decorated with a single line on its upper surface. The top of the inner ridge, flush with the rim of the lamp, and set close to the forward edge, did not extend its full width.

SLATE BLADES: The only slate pieces from the Type Ia houses are two blade tips from House 8b. One is the tip of a whale harpoon blade similar to the blade shown in Fig. 28a, from House 7, Site 4. The other is the tip of a harpoon or arrow blade with beveled edges. No other chips or blades were seen.

QUARTZ BLANK: Also from House 8b is a roughly executed quartz blank for a triangular blade 2 inches long by $1\frac{1}{8}$ inches wide. This had been reworked from an ordinary side scraper, and a small section of the original unilaterally chipped edge remains (Fig. 5b). From the complete absence of quartz scrap inside Houses 8a and b, as well as the other Eskimo houses, I have no reason to believe that this blank had been worked by the builders of this house.

WHETSTONES: Three of the whetstones found in House 8a are of mica schist. Two of them (Fig. 7c, b) are rectangular, have been used on both faces, and have only slightly worked edges. The third is a flat, irregular, waterworn pebble, showing only slight wear on one side. A similar but smaller waterworn piece, slightly used on one side, came from House 8b.

A portion of a well-made oblong whetstone with a finger notch on the unbroken end was found among the loose stones fallen into the inner end of the entrance of House 8b in such a position that it was impossible to determine absolutely whether it belongs with the objects found in Houses 8a or 8b. It is identical with the notched whetstones of northeast Greenland and is the first example reported outside that area. Larsen¹ thought these peculiar to northeastern Greenland and reported them as oc-

¹ Larsen, 1934, 82-85.

curring in the oldest material of Dødemandsbugten, Clavering Island. This particular specimen (Fig. 7a) is of very fine-grained, gray-brown, slate-like schist. It is 1 inch wide in the middle by $\frac{3}{8}$ inch thick by $2\frac{3}{8}$ inches long. From the curvature of the sides, we have an indicated original length of about 4 inches. Most of the wear is on one flat surface, but the other three sides are well smoothed and have probably been used.

IRON: Only two fragments of iron were found in the Type Ia houses. Between the floor stones of House 7a was a section of an oxidized nail and from between the floor stones of House 8b was taken a completely oxidized fragment

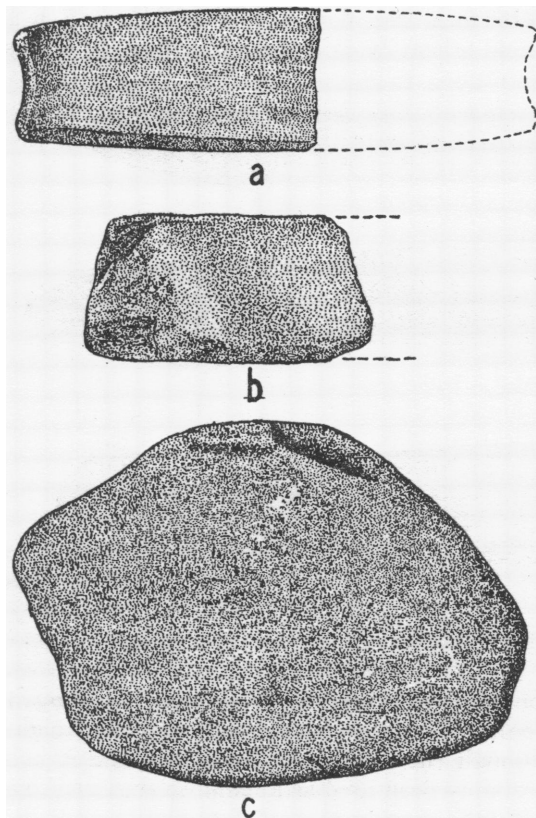


FIG. 7. Types of whetstones, Avertok.

which it is impossible to identify in its present condition. Lacking additional evidence this iron cannot be cited as proof of direct white contact.

TYPE IB HOUSES (Nos. 9, 3, 4, 5, 6)

We have listed all the artifacts recovered from House 3 in the distribution table (p. 154).

As those found on the floor of the entrance tunnel can be positively correlated with the first occupation of the house, they are here described with the other objects from the Type Ib houses. The remainder will be considered separately.

HARPOON HEAD: A poorly preserved harpoon head of whalebone (Fig. 8a) from the floor of the

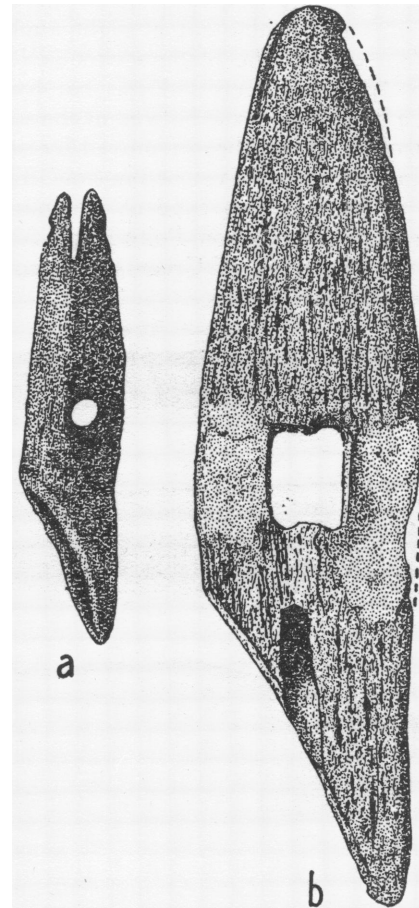


FIG. 8. Harpoon heads, Avertok.

tunnel of House 3 has no exact counterpart in Mathiassen's classification¹; the closest parallel is his A II c 1, with a line hole cut from side to side, a closed shaft socket with blade socket parallel to the line hole, bored for a rivet or pin, and a single pointed spur. In cross-section it seems to have been roughly diamond-shaped, with a ridge extending from the blade rivet or pin hole to the tip of the spur. Width and thickness are about equal. The length is $3\frac{1}{8}$ inches. Viewed sidewise, the line hole is bored

¹ Mathiassen, 1927, 12.

off center from the median plane of the point on the same side of the blade socket as the spur.

WHALING HARPOON HEAD: A whaling harpoon head (Fig. 8b) from the floor of the entrance tunnel of House 3 is of whalebone, 7 inches long by $2\frac{5}{8}$ inches wide by $\frac{7}{8}$ inch thick, with a closed shaft socket, a single spur, and a $\frac{3}{4}$ inch square line hole cut at right angles to the blade socket. The blade socket is $\frac{5}{8}$ inch wide by $1\frac{3}{8}$ inches deep and was cut by first drilling a hole to form the bottom of the socket, the rest of which had been removed by sawing or cutting. It has no rivet or pin hole. This is similar to the common type of whaling harpoon head distributed from Point Hope, Alaska, to the western coast of Greenland¹ identified with the Thule culture.

roughly triangular in cross-section, with two slightly tapering roughened surfaces which fitted into a V-shaped cut in the shaft. At the broken end is a drilled hole with a chamfered edge.

FISH LINE SINKER OR JIGGER: An egg-shaped soapstone fish line sinker from House 4 is $4\frac{1}{2}$ inches long by 2 inches in diameter. The line hole at the smaller end has been drilled from two directions and has a slight line groove cut from this about the end. Another hole at the bottom of the sinker, also drilled from two directions, may have been for an additional line to hold a hook or may have been a socket for a piece of metal, in which case it could be used like the modern cod jigger (Fig. 10a).

Between the floor stones of House 5 was found a heavily oxidized lead sinker, $2\frac{1}{2}$ inches

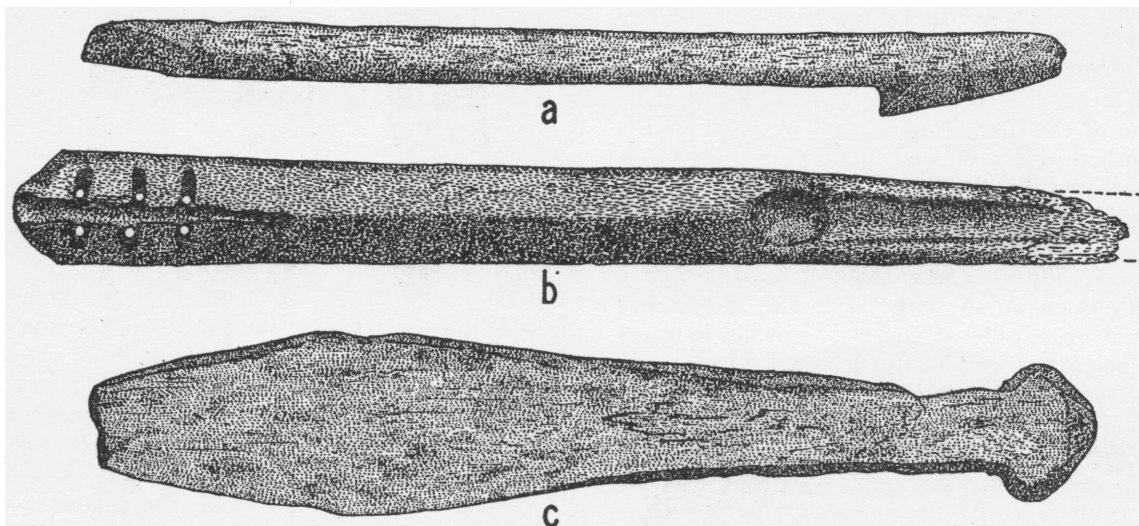


FIG. 9. Whalebone dart foreshaft and other whalebone objects of uncertain use, Avertok.

DART (?) FORESHAFT: A whalebone dart (?) foreshaft (Fig. 9a) from the floor of the entrance tunnel of House 3 was formerly over 11 inches long, oval in cross-section, with a single barb in the plane of the blade socket, about $2\frac{1}{4}$ inches long, measuring from the tip. At the point of attachment to the shaft the portion in contact with the wood has two beveled roughened surfaces.

HARPOON ICE PICK: A whalebone ice pick was found on the floor of House 4. It is the tenon portion which fitted to the shaft, 4 inches long,

long by $1\frac{5}{8}$ inches in diameter, weighing 1 pound, 6 ounces, with a hole drilled straight through the small end. At some time it had probably been used as a hammer since striking with the small end had flattened it and distorted the line hole from round to oval. The sinker has quite clearly been hammered rather than cast into its present form (Fig. 10b).

SNOWKNIVES: A whalebone snowknife with a broken blade was found at the bottom of the House 3 entrance tunnel. The blade is 3 inches wide, the handle 4 inches long, with knobs on both sides of the butt. This seems to be of the usual pattern common prior to the use of iron

¹ Mathiassen, 1927, 27.

blades and two-piece handles. A similar specimen is shown in Fig. 19a. With it was a fragment of a whalebone snowknife blade, but the difference in preservation makes it impossible to decide whether they were originally parts of the same knife.

HARNESS TOGGLE: From the entrance tunnel of House 3 we have a very poorly preserved object of whalebone which may have been a harness toggle (60.1-6756). Originally it had at least three holes from $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter. This does not check with any of the other fragments of harness toggles found near Hopedale.

BEAR TOOTH PENDANT: When first found at the bottom of the House 3 tunnel, enough of the root of the bear tooth remained to show that it had been drilled for suspension in the usual manner. As a preservative was applied this root end sloughed off, so there is nothing in its present form to show its use.

OBJECTS OF UNKNOWN USE: From the bottom of the tunnel of House 3 we have a well-finished object of whalebone (Fig. 9b) which may have been a loose lance head for killing whales. In its present condition, with part of one end missing, it is 14 inches long by $1\frac{1}{2}$ inches wide by $\frac{5}{8}$ inch thick at one end and $\frac{7}{8}$ inch thick at the other. At the heavy end is an open tapered socket, $3\frac{3}{8}$ inches long, of sufficient size to fit the foreshafts used with the local whaling harpoon heads. Three pairs of lashing holes are drilled so that the lashing on one side would not protrude above the surface, and on the other it is so cut that it would be in contact with the foreshaft. At the narrow end, on the same side of the object as the open socket, is a groove about 5 inches long with an oval hollow at the inner end suitable for seating a blade hammered from an iron spike in the fashion of the knife shown in Fig. 25e. Mathiasen summarizes the data on loose lance heads, but all are shorter and are not considered as whaling gear. He classes them as an element of the Thule culture with their distribution limited to the central Arctic.¹ Its present condition gives no indication of its use, nor could any of the modern Eskimo offer any explanation.

A much more crudely worked but equally puzzling object of whalebone is shown in Fig. 9c. It is apparently unfinished, $9\frac{1}{2}$ inches long,

roughly rectangular in cross-section, with fairly flat sides showing adze marks.

COOKING POTS: The only common articles in the Type Ib houses are fragments of steatite pots. The total of 35 pieces, however, consists largely of fragments which give little evidence of form and decoration.

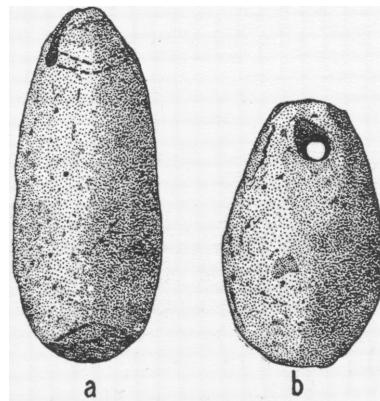


FIG. 10. Fish line sinkers, Avertok.

Stuck between the wall stones of the entrance to House 3, where it may have been placed when the house was built, is the corner of a pot with inclined sides.² It is 3 inches deep inside, the bottom is only $\frac{3}{8}$ of an inch thick, while the side walls are about $\frac{1}{2}$ inch thick. In attempting to make the usual two-hole cut from the top of the rim to the outside of the vessel, the piece between the holes broke, so a single opening was made at one side. The rim is perfectly flat on top and has two closely spaced decorative grooves on the outside.

From House 4 we have a fragment of a very large vessel, 1 inch thick at the rim, which is ornamented with a single deep groove on its upper surface and another cut $1\frac{1}{2}$ inches below the edge, suggesting a broad lip. Apparently it had inclined sides. A portion of one suspension hole is bored from the top to the outer surface.

A corner piece of a much smaller pot with vertical sides has two suspension holes drilled from top to outside and lacks the ornamental line along the rim.

The end piece of a still smaller container (Fig. 11j) with well-rounded sides is only $1\frac{3}{4}$ inches deep by approximately 4 inches wide. Single suspension holes are bored in the corners

¹ Mathiasen, 1927, 36, Figs. 1, 6.

² This terminology applies to those vessels in which the base is larger than the mouth.

from the top of the rim to the outside. The outer surface has been cut away, leaving a slight lip $\frac{3}{8}$ inch high on the outside of the rim.

Of the three rim pieces found in House 5, two have a slight lip outside the rim which has a single groove along the top. The third is plain. Two of them have double corner suspension holes drilled from top to outside surface. One has a $2\frac{1}{4}$ inch wide finger grip socket about $\frac{1}{2}$ inch deep.

Two other fragments from the same ruin have been repaired with iron nails.

From the interior of House 5 we have the bottom and one side of a small bowl with well-rounded sides, $7\frac{1}{2}$ inches long by $6\frac{1}{2}$ inches wide by 3 inches high. The sides are vertical and there is a slight lip on the outer face of the rim. Apparently it had only single suspension holes at the corners which were drilled completely through the side of the vessel, then down the rim, so that the knot at the end of the suspension cord could be either inside or outside the vessel. At one time it had been repaired with an iron nail.

Of four other rim fragments from the same house, one, obviously from a pot with inclined sides, has a slight lip, $\frac{5}{8}$ inch high, outside the rim, with a single groove along its center passing around the pot corner. On top of the flat rim are two deep grooves ending at the suspension holes. Two of these holes are bored from the top of the rim to the interior of the vessel. It is the only example, from the Hope-dale area, of a pot with inclined sides and the suspension holes so arranged.

Two other pieces, each with ornamental grooves along the top and a single groove on the outer surface below the rim came from the same ruin.

The remaining rim piece is without decorative lines and lip.

LAMPS: The corner of a well-made lamp with an inner ridge (Fig. 11i) is from the bottom of the entrance tunnel of House 3. The ridge, with its top about $\frac{1}{4}$ inch below the rim of the lamp, ends $1\frac{1}{2}$ inches from the corner, allowing oil to flow around it to the wick. It is decorated with a single line along the top. Another ornamental line begins at the corner of the lamp and presumably continued around the back edge.

From House 5 we have a fragment of the forward edge of a lamp with the remains of a

straight inner ridge which is not concentric with the forward edge. In the interior of House 3 we found another fragment of this lamp (60 1-6708¹), sufficiently large to show that the inner ridge ended about $1\frac{1}{4}$ inches inside the corner and that the interior depth is about $1\frac{1}{2}$ inches.

A large section of a lamp from House 5 has an inner ridge near the forward edge and concentric with it, ending 2 inches inside the corner, and with $\frac{1}{2}$ inch opening at what was probably its approximate center. If this is the center, the lamp was originally about 22 inches wide by about 12 inches from front to back and had a maximum depth of about $2\frac{1}{4}$ inches. The top of the inner ridge is cut perfectly square, without decorative lines, and is flush with the edges. The outer rim is rounded and undecorated. The workmanship is fairly good, but not so fine as that on the lamp shown in Fig. 29.

An unfinished toy lamp from the same ruin is $2\frac{1}{2}$ inches long and has the same outline as the one just described. The interior is only partially cut out.

The five additional lamp fragments from Type Ib houses add nothing to our knowledge of the form or type.

SLATE OBJECTS: On the bed platform of House 6 was found a broken slate whaling harpoon blade. The edges are ground very thin and sharp without any bevel (Fig. 12e).

From House 4 we have a fragment of worked slate with a section of ground concave-convex cutting edge. The side surfaces are unworked. It has no diagnostic feature to indicate its original pattern or to suggest its classification. From House 5 we have a large chipped slate blank (Fig. 12d), which may have been intended for either an ulu or a whaling harpoon blade.

An oval slate disc, a float plug (Fig. 12f), is $2\frac{3}{8}$ inches long by $1\frac{1}{2}$ inches wide by about $\frac{3}{8}$ of an inch thick. Grinding is limited to the edges which are thinned down and blunt. Data on the geographical distribution of these slate discs and an explanation of their use are given in the summary of Site 1 (p. 155).

QUARTZ: Although the piece of quartz found in House 5 is unworked, it is listed as an artifact, for it was the only material present suitable for use with pyrites to make fire.

¹ Museum catalogue numbers are given for unillustrated specimens of importance.

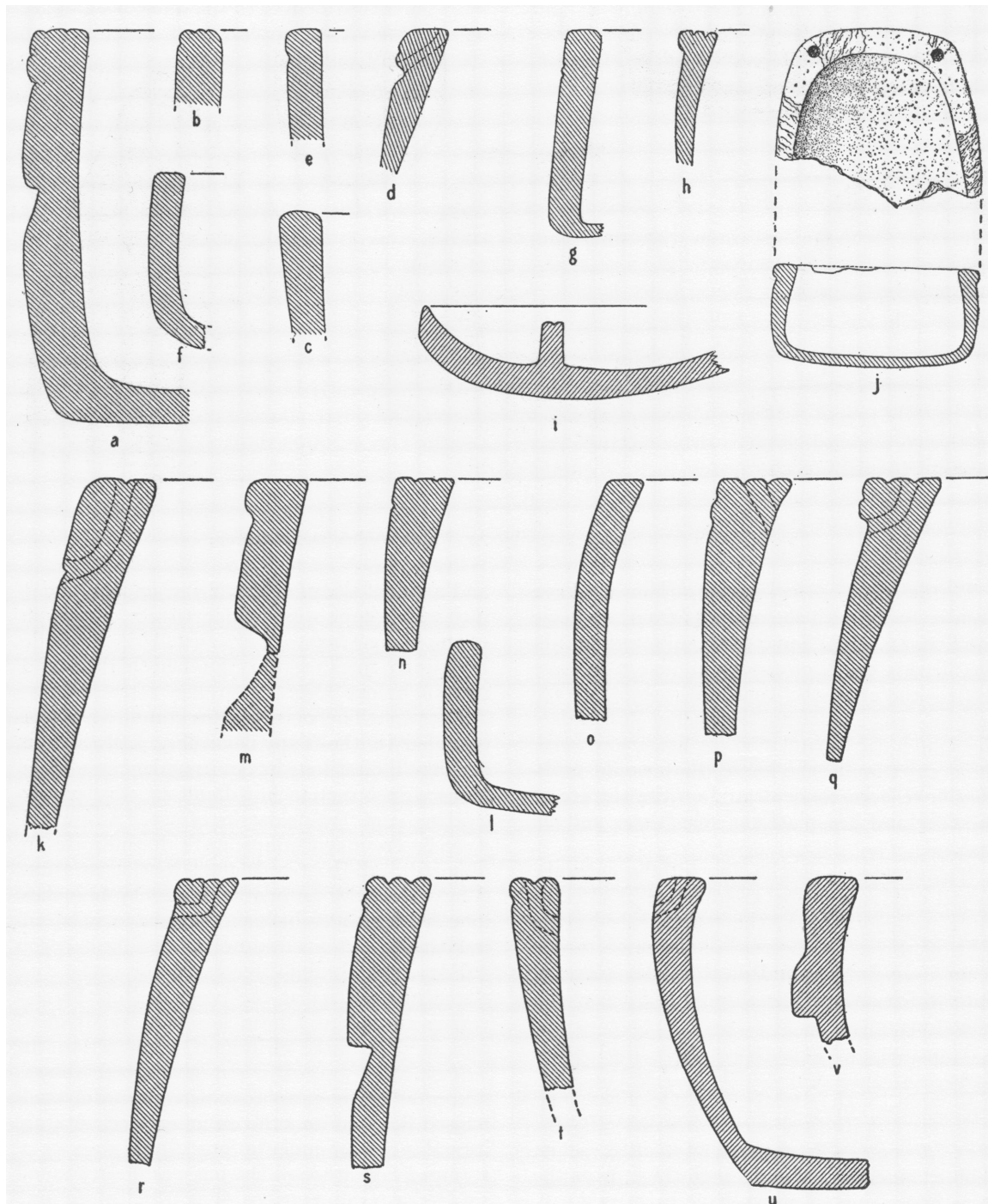


FIG. 11. Sections of steatite cooking pots and lamps associated with Type I and Type II houses.

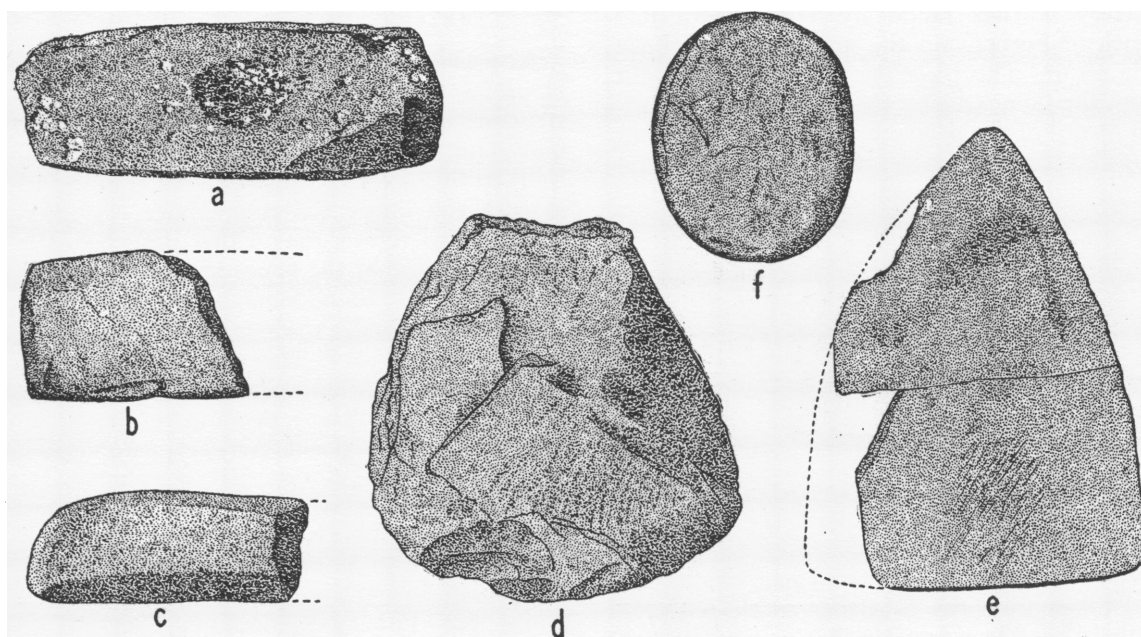


FIG. 12. Whetstones and slate objects, Karmakulluk and Avertok.

The flakes from the interior of House 9 have been included with the material from the lodge site floor (p. 152). Some of these were found in the fill over the floor paving and seem to have settled there as the turf walls and forward portion of the platform weathered down after the house was abandoned. If associated with the occupation of the house, they would probably have been concentrated on the surface of the floor and bed platform, which was not the case.

WHETSTONES: On the floor of the entrance tunnel of House 3 was a sandstone block with three well-worn faces, the fourth side having split off. From the bottom of the same tunnel is an irregularly rounded, thin, flat piece of slate which on one side showed slight use as a whetstone.

A section of the common four-sided sandstone whetstone was found in House 5. It is well worn, with slightly concave sides, and with one longitudinal corner beveled off (Fig. 12c). A naturally formed, flat-sided schist pebble, 5 inches long and 1 inch thick, from the same house ruin, seems to have been used as a sharpening stone.

Three whetstones were found in House 6: an irregular lump of red slate, 4 inches long, has been used as a whetstone on two surfaces,

and a thin flake of schist, 2 inches long and 1 inch wide, shows wear on one surface. A portion of an oblong whetstone of schist, $1\frac{1}{2}$ inches wide by $\frac{3}{8}$ inch thick, was used on both sides and perhaps on one edge.

PYRITES: The only pyrites found at Site I occurred in the Type Ib ruins, probably an accidental distribution. An irregular lump from House 1, about an inch in diameter, was heavily oxidized and had no marks of use. In House 5 were five rounded lumps, an inch and more in diameter, all battered and worn from use. A large irregular lump of poor quality $4\frac{1}{2}$ inches long, without any battered surface, was found in House 6.

POTSHERD: Lying directly on the surface of the paving stones at the inner end of the entrance tunnel to House 4 was a small grit-tempered potsherd of Indian manufacture. It is from the rim of a straight-lipped vessel, decorated on the inner edge with short diagonal incised lines and on the outer surface with an irregular row of indentations directly above a stamped impression showing parallel rows of small sharp indentations (Fig. 13). In section, it diminishes from an approximate thickness of $\frac{1}{2}$ to about $\frac{1}{4}$ inch at the upper edge, the inner surface curving outward.

The nearest reported location for similar

pottery is that found by Wintemberg just south of Forteau on the north shore of Belle Isle Strait.¹ This piece may have been brought from the same area by the Eskimo. An historical record of the people of Avertok claims that

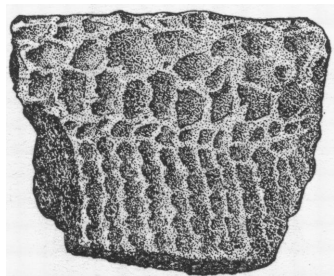


FIG. 13. Rim sherd from a vessel decorated by indentation, Avertok.

about 1763 they had boats and gear which they had taken from the fishermen in the vicinity of Belle Isle.² It is possible that such raids were also made at a somewhat earlier date.

WHITE CONTACTS: Apart from the post-mission debris of the latter occupation of House 3, there is some evidence that the inhabitants of these Type Ia and Ib houses had direct contact with whites. Iron was found in all ruins except House 9. Iron nails have been used in the repair of three stone pots. A fragment of clay pipestem (Fig. 14) from House 9 and the lead used in making the sinker found in House 5 were the only other articles found, not of native manufacture. These two items, however, are important, for while the iron



FIG. 14. Fragment of a clay pipestem, Avertok.

nails might have been found in driftwood the pipestem and sinker must mark the presence of Europeans on the coast. Moreover the stamped decorations on the pipestem match those on examples made in Holland in the seventeenth and eighteenth centuries, giving us a rough limiting date for one of the oldest house forms (Ib).

¹ See Strong, 1930, 133.

² Davey, 1905, 53.

INTERIOR OF HOUSE 3, IN SOD

As previously mentioned, the remodelers of House 3 had apparently cleared the earlier structure down to the paved floor. The sod removed may well have been used in banking the walls so that some of the artifacts found in the modern sod inside the ruin, above the later occupational refuse, may either date back to the original use of the house or have been left there after its abandonment. We have four items from this sod.

HARPOON HEAD: A harpoon head (Fig. 15a) of whalebone is Mathiassen's³ Type B II c 2. It has a curved line hole, openings on the upper side, a large closed shaft socket, two dorsal spurs, and a blade slot with rivet or pin hole. It has been reworked from a larger specimen so that the rivet hole is now at the tip. Thus its present length of $2\frac{3}{4}$ inches is probably $\frac{1}{2}$ inch less than its former size.

HARPOON FORESHAF SOCKET: This whalebone harpoon foreshaft socket (Fig. 15c) is identical with ethnological specimens from the Labrador. The socket is chiseled out to go over a tenon on the forward end of the harpoon shaft. This portion is slightly oval in section, flaring out on the forward end, and has an oval conical socket $\frac{3}{4}$ inch deep for the foreshaft. Its incomplete length is $2\frac{1}{4}$ inches.

MAN'S KNIFE HANDLE: A man's knife handle made of whalebone, 6 inches long, has the remains of a rust-stained side socket and a hole at the other end for a suspension cord.

SLEDGE SHOES: A well-worn fragment of a sledge shoe, made of whalebone, $2\frac{3}{8}$ inches wide by $\frac{1}{4}$ inch thick, has two holes for pegs set along the line in the center.

INTERIOR OF HOUSE 3, ON FLOOR

HARPOON HEAD: A small fragment is from a harpoon head nearly identical with the one found in the sod above, except that the end of the spur has a V-shaped cut.

HARPOON OR LANCE FORESHAF: The poorly preserved butt end of either a lance or harpoon forepiece has a conical end to fit in the socket. Forward of this the specimen is round, $\frac{5}{8}$ inch in diameter. The break occurs through the thong hole (Fig. 15b). The tip of another whalebone lance foreshaft with an iron blade

³ Mathiassen, 1927, 12.

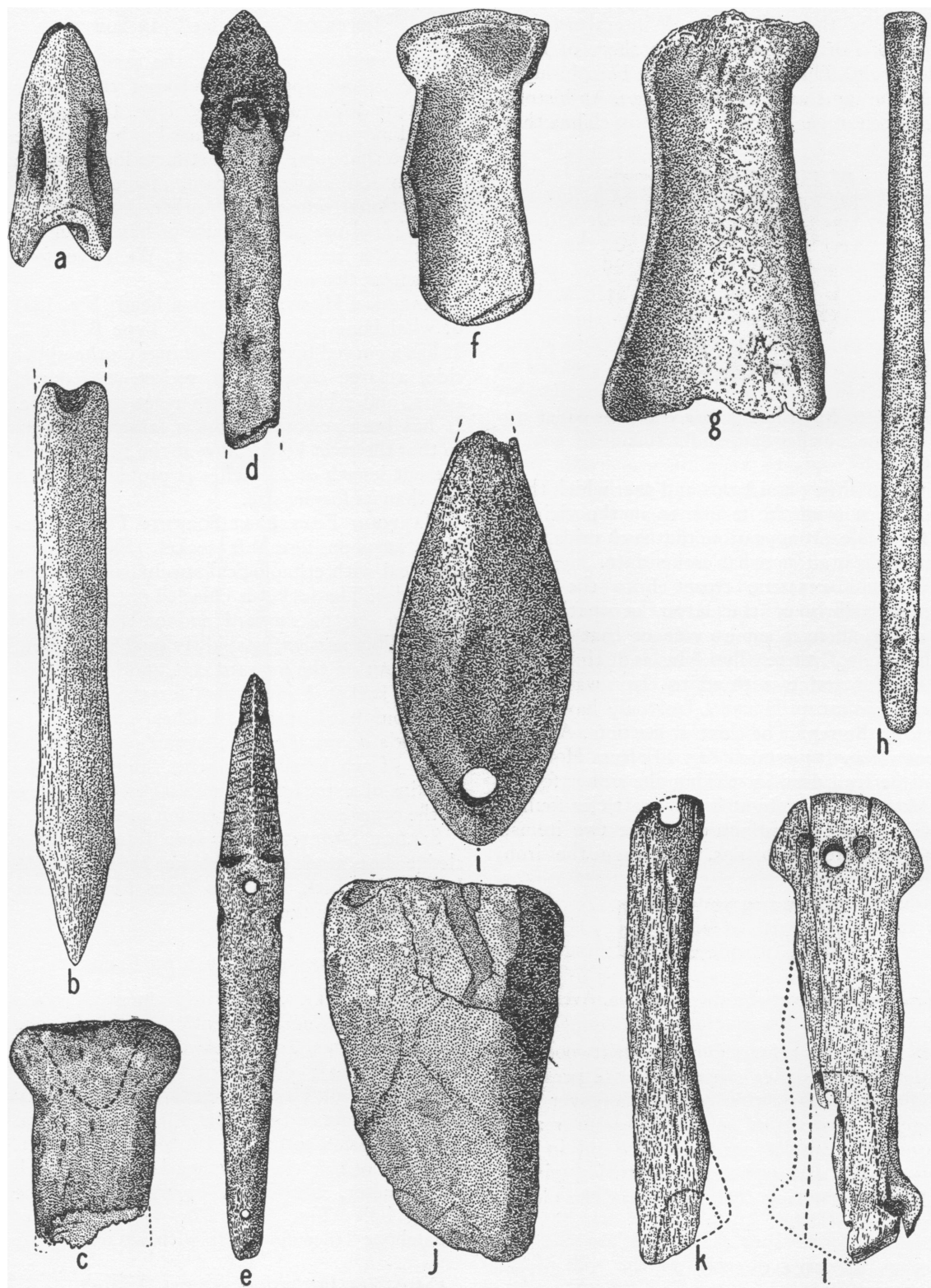


FIG. 15. Artifacts from mixed occupational refuse, Site 1, House 3.

secured with an iron rivet (Fig. 15d) is oval in cross-section.

HARPOON ICE PICK: A well-preserved complete harpoon ice pick made of whalebone (Fig. 15e) is $8\frac{1}{2}$ inches long, 6 inches of which projected beyond the end of the shaft. It is re-worked from a harpoon forepiece; the formerly carefully smoothed surface in contact with the lashing has been roughened. At the place where it joined the shaft we have two tapering roughened surfaces which fitted into a sharp V-shaped cut. When used as a forepiece, the original thong holes were drilled at right angles to each other, with just enough clearance to leave solid bone between them. The object also appears to have had a third use, as holes are drilled near either end, and it is slightly gouged about the ends to keep lines or cords from slipping when passed through the holes. These had no relation to its use as a harpoon fore-shaft or ice prong, but would have served if it had been used as a fish line sinker. The main cord could be fastened to one end, and a shorter one with the hook attached to the other.

A second harpoon ice pick of badly rotted whalebone, over 6 inches long, is similar to the preceding and was fitted to the shaft in the same manner.

FISH SPEAR: The central portion of a fish spear (Fig. 16) is made of two pieces of antler. One part was fitted to the handle with a stepped beveled joint, a slight knob on the outer side preventing the lashings from slipping up the handle. The other end has a V-shaped cut into which the rest of the object was fitted and secured by a bone peg and lashings. At the tip of the second part, to which the side prongs were fastened, is a square rust-stained socket for an iron center prong. The side prongs, fitted to flattened sections, were secured by two pegs from each side and lashings through seven holes. This specimen is of interest in that it is either a special form developed so that a nail could be utilized for the central prong or is a survival of an earlier pattern. All known three-pronged fish spears of the central and eastern Arctic have the side prongs secured to an expanded portion or extension of the wooden handle with the central prong set into the wood. Only in Ipiutak culture are the side prongs mounted directly on the side of the center prong.

HARPOON REST, KAYAK ATTACHMENT (?):

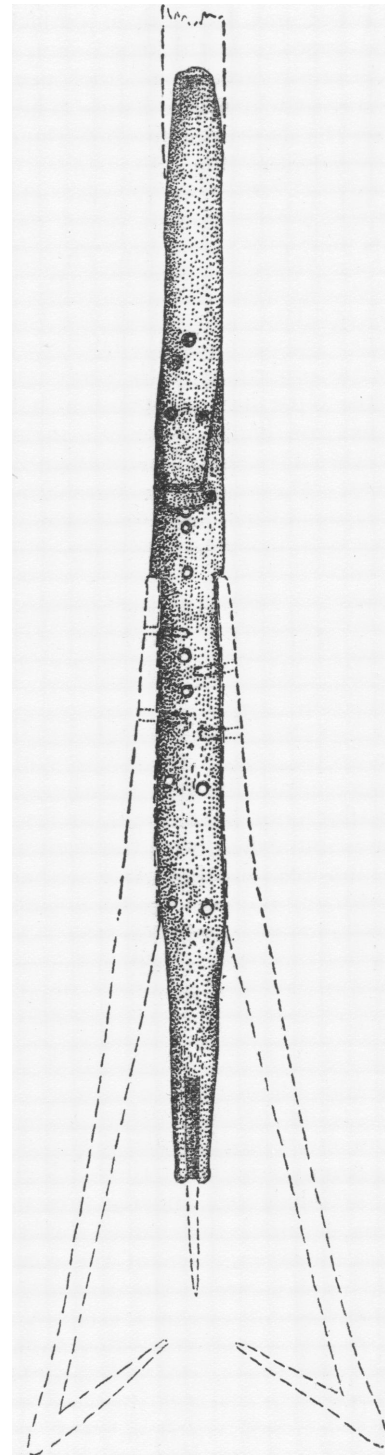


FIG. 16. Antler fish spear, Avertok.

This whalebone object is without duplicate in existing collections. One side is perfectly flat, while the opposite is thickened somewhat at each end, mainly around a $\frac{1}{4}$ inch peg hole if we have correctly identified its use. The smaller end, where the suspension line hole should have been, is rotted away (Fig. 15i).

SNOWKNIVES: Portions of two whalebone snowknives are from the floor refuse. One is the part of the blade near the tip. The other, the juncture of the blade and the handle, has two shoulders and two holes drilled just forward of the handle. Two two-piece whalebone handles joined with iron rivets, with knobs on either side of the butt, have suspension holes and sockets for iron blades. One is 5 inches long, and the other $4\frac{1}{4}$ inches. One of them is shown in Fig. 15l. These may be butchering knife handles, although the modern Eskimo believe that these two-piece handles were for snowknives.

SNOW BEATER: A whalebone implement (Fig. 15h) is probably for knocking snow from clothing. It is $11\frac{1}{4}$ inches long and $\frac{1}{2}$ inch wide by $\frac{1}{4}$ inch thick.

MEN'S KNIVES: The three knife handles from the floor debris, two of whalebone and one of antler, were originally over 6 inches long. All are thin, flat, and have slight knobs on one side. One is unfinished, with the beginning of a cut for a side blade socket. Another has rotted away at the end, but seems to have had a closed end socket as indicated in Fig. 15k. The third, a broken example, has a suspension cord hole and iron-stained side socket for a blade which was secured with at least one rivet or pin. It is almost identical in outline with the specimen shown in Fig. 15k.

WEDGES: One of two wedges (Fig. 15j) is made from a portion of a walrus jaw, and shows fractures from pounding at the thick end. The other is of whalebone, poorly preserved, $7\frac{1}{2}$ inches long, $1\frac{3}{4}$ inches wide, and $\frac{7}{8}$ inch thick.

SCAPULA SCRAPER: One of the commonest household implements in the central Arctic is the caribou scapula scraper used to remove moisture from furs. Only four were found in the Hopedale area, three in the interior of House 3. They are the usual pattern, a little over 4 inches long (Fig. 15g). One of them (Fig. 15f) had been used as a boot softener after it had broken or worn down.

SLEDGE SHOES: All four sledge shoe pieces

from the inside of House 3 bear evidence of thong lashing; in addition, one has a hole for a large nail with a countersunk socket for the nail head. The widths range from 2 to $2\frac{1}{2}$ inches, the thicknesses from $\frac{5}{8}$ to $\frac{3}{4}$ of an inch.

WHETSTONES: The three whetstones from the interior are thin irregular slabs of schist and sandstone. One is well worn on both sides, and the others have been utilized on only one face.

COOKING POTS: Fourteen of the 17 pot fragments are indeterminate pieces. Most of them are scrap from repaired vessels.

Two adjoining pieces of a repaired pot found on the surface of the floor stones may have been left there by the first occupants. The pot had been oval in outline, the only one of this form found at Avertok. It has two deep ornamental grooves on the top of the rim and a narrow rounded lip carved on the outside. The sides were inclined, and double suspension holes were drilled from the top of the rim to the outside just below the lip. These differ from the usual double suspension holes in having the stone cut away so that the cord passing in through one hole and out of the other would lie flush with the outer surface of the vessel.

The bottom of another pot corner apparently had overhanging sides, a feature recorded only from the Type III houses.

A single rim fragment has a square undecorated edge.

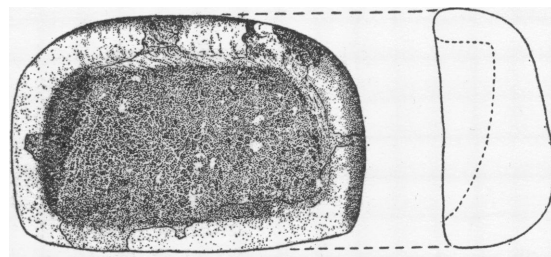


FIG. 17. Lamp, partially restored, Avertok.

LAMPS: Embedded in the sand of the bed platform of House 3 was a small, poorly preserved, heavy cooking or illuminating lamp (Fig. 17) measuring $8\frac{1}{2}$ inches long by $5\frac{1}{2}$ inches wide, nearly rectangular in outline, and with an almost vertical rear wall rising from the deepest portion of the interior. It had no inner ridge.

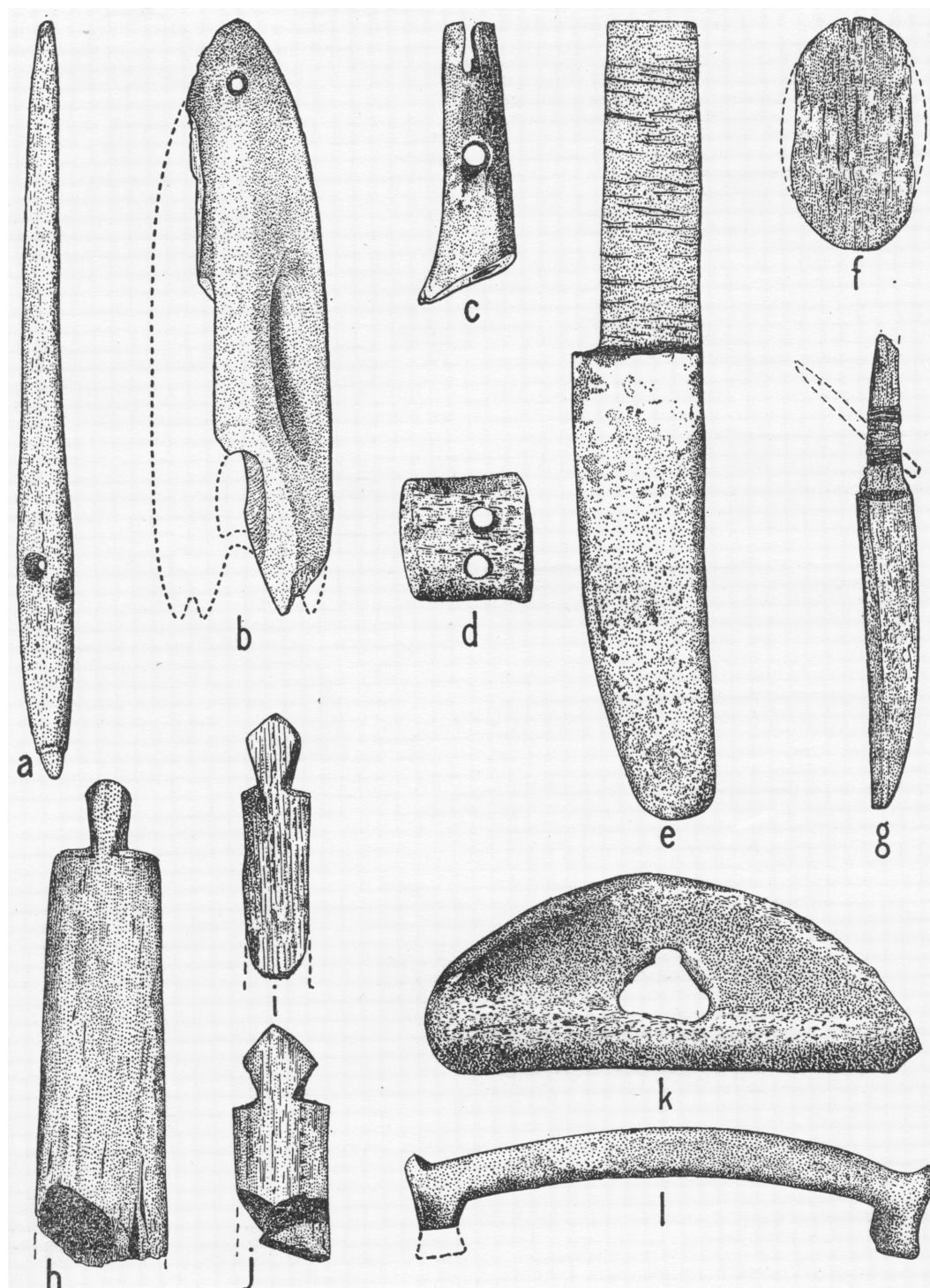


FIG. 18. Artifacts associated with Type III house ruins, Avertok.

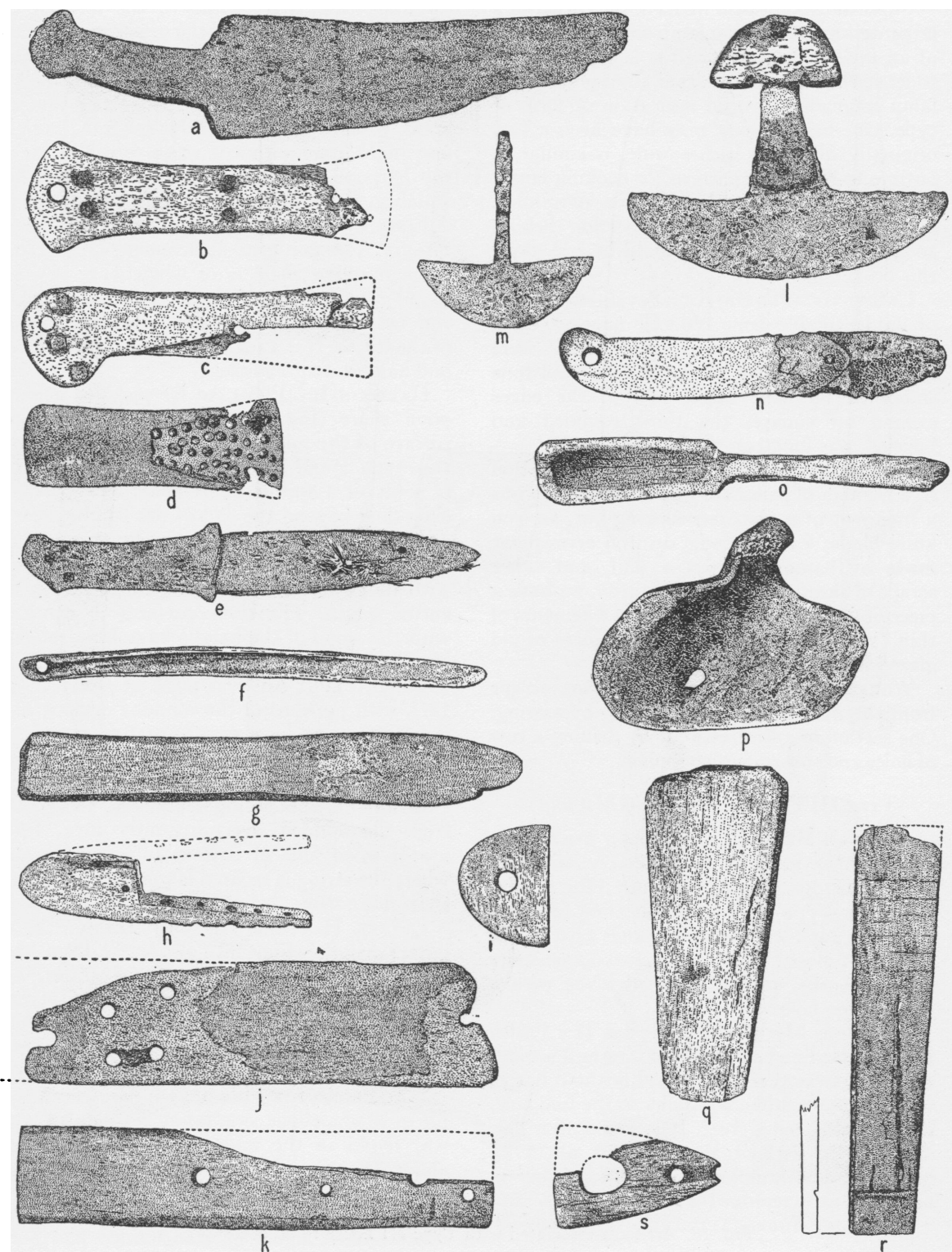


FIG. 19. Artifacts associated with Type III house ruins, Avertok.

From the floor refuse we have the corner of a large well-made cooking lamp with no evidence of an inner ridge, although it is so broken as to leave this open to question. Two other small lamp fragments give no indication of form or type. One half of what may have been a toy, originally about $6\frac{1}{2}$ inches wide, is similar in outline to the usual pattern for cooking lamps without an inner ridge. The broken margin has been smoothed off, and the portion behind gouged out so that a wick could be laid along this broken edge.

UNIDENTIFIABLE OBJECTS: Several fragments of unidentifiable bone objects, none of them complete enough to merit description, were found. A triangular piece of fine sandstone smoothed on both faces, two of the edges ground off square, the third rounded and beveled, was found on the floor surface.

EVIDENCE OF WHITE CONTACT: In addition to a number of iron nails and spikes, there was a fragment of a cast-iron cooking pot, an iron knife blade, 7 inches long, an iron arrowpoint made by hammering out a nail, and other scraps of sheet iron. Other than iron, we have a piece of patinated bottle glass, two fragments of thin "stone crocks" or jars, and a piece of old glazed luster ware with gold design.

WORKING TECHNIQUES: Most bone scraps from the floor refuse show cutting by sawing. One section of antler was cut by drilling a row of holes and subsequent chopping.

TYPE III HOUSE (No. 1 AND MIDDEN)

HARPOON HEADS: Two harpoon heads were found in the midden. A broken one, made of whalebone, split lengthwise (Fig. 18b) is Mathiassen's Type B II c 2.¹ The line hole has a curved path with both openings on the upper side, a closed shaft socket, two dorsal spurs without barbs, and an inserted blade with a rivet or pin hole.

Fig. 18c is Mathiassen's Type A II c 1 with a transverse line hole, a closed foreshaft socket, and one spur notched at the end, without barbs, with an inserted blade parallel to the line hole, and a boring for a rivet. It is made of antler. The length, without the blade, is about $2\frac{1}{2}$ inches, and is indeterminate because the tip has been cut to remove the rivet.

HARPOON FORESHAFT: The only harpoon

foreshaft (Fig. 18a) found in the midden is made of whalebone, with the greatest width at the point where the two attachment thong holes are bored. Midway between the thong holes and the tip it is round in cross-section and is about $\frac{1}{2}$ inch in diameter. To judge from its size one might assume that it was a foreshaft for a toy harpoon, but it fits the point in Fig. 18c which is large enough to be effectively used.

FINGER GRIP ATTACHMENT FOR HARPOON SHAFT: A finger grip attachment (Fig. 18d) for a harpoon shaft is of whalebone. It was found in the interior of House 1 in the sod which was built up subsequent to the abandonment of the house. It is 1 inch square by $\frac{3}{8}$ inch thick and has two lashing holes.

HARPOON ICE PICK: An ice pick for a harpoon shaft (Fig. 18e) was found near the surface of the midden. It was the only one of this type found during the whole season. It is made of a walrus penis bone. The portion extending beyond the end of the handle measures $3\frac{1}{2}$ inches. It was attached by means of a $2\frac{1}{2}$ inch tenon, rectangular in cross-section, with about the same width and thickness for its entire length. The three surfaces in contact with the wood of the handle have been roughened by knife cuts.

FLOAT PLUG: An oval piece of wood (Fig. 18f), with portions of the rounded edges missing, appears to be a counterpart of the slate float plugs (p. 140) found in House 3 at this site and at Sites 4 and 5.

Bows: Three bow fragments (Fig. 18h-j), all from the midden, are apparently toys. Two are of wood, one of baleen. In each, the tip where the string is secured is roughly diamond-shaped in outline.

QUIVER HANDLE: The only example of a quiver handle (Fig. 18l) also came from the midden. It is carefully made of antler, $4\frac{1}{2}$ inches long, curved, with slight projections rising at each end of the top surface. The lashing holes are drilled in the direction of its long axis.

SIDE PRONG FOR FISH SPEAR: A single example of a whalebone side prong for a fish spear was found in the midden. It was originally about 11 inches long, roughly oval in cross-section, expanding at either end, one with a flat bevel where attached to the handle, the other broken across an iron-stained nail hole drilled at an oblique angle.

¹ Mathiassen, 1927, 13.

GULL HOOK: A gull hook (Fig. 18g) found in the midden was the only one seen in the entire season. It is rectangular in cross section and lacks the groove characteristic of most gull hooks. It was thinned down at one end by removing a portion from each face. The barb is missing, but a part of the lashing covering a space of $\frac{1}{2}$ inch remains on one side.

MEN'S KNIVES: Two men's knives are both from the midden. One (Fig. 19n) fitted with an iron blade has an antler handle attached to the blade with two iron rivets. There is a thong hole in the butt where a small knob projects on the side away from the cutting edge of the blade. The blade socket extends the full width of the handle. The second (60.1-6833) is a whalebone handle for a similar knife formerly fitted with an iron blade attached with two rivets.

WOMEN'S ULUS: One complete and two incomplete ulus were found in the midden. All had iron blades and tanged handles. The ulu illustrated (Fig. 19l) has a blade cut with a flat extension which is riveted into a slot across the full width of the flattened whalebone tang which mortised into a wooden handle and secured with a wooden peg. Notches at the top and bottom of the handle indicate that it was further secured by lashing.

A whalebone tang from a nearly identical specimen was in contact with fragments of a wooden handle when found. The blade had broken off.

An iron blade for a woman's ulu, with a strip of iron welded to one side of the blade as a tang, is shown in Fig. 19m.

SNOWKNIVES: A snowknife (Fig. 19a) found in the midden is entirely of whalebone. The tip of the tapered blade had rotted off. The remaining portion is $11\frac{1}{2}$ inches long by $3\frac{1}{4}$ inches wide. The handle has knobs on either side. When found, one side of the blade had a circular smear of red paint, about $1\frac{1}{2}$ inches across.

TWO-PIECE SNOWKNIFE HANDLES: Of four fragmentary two-piece snowknife handles, three came from the midden, one from House 1. All are of whalebone and have been attached to iron blades.

The two halves of one of the handles (Fig. 19b) are held together with four iron rivets; the handle flares on both sides at the butt and has a suspension cord hole. Another example (60.1-6688) apparently had the same form,

while the third (Fig. 19c), with a knob at only one side of the butt, was also held together with iron rivets, and has a suspension hole.

One half of a concave-sided handle (Fig. 19d) is the only one found with a complete socket for a blade and shows the manner of fastening. This reveals a tapered blade socket made by drilling holes close together in the area to be removed. Two iron rivets and one bone peg were used to hold the blade in position. It is $3\frac{1}{8}$ inches long. The length of the others is uncertain.

WEDGES: A whalebone wedge (Fig. 19q) was found in House 1. It has converging sides and an unusually thin and sharp entering edge.

SCRAPER: This is made from the rear portion of a bear mandible with the naturally slightly concave surface of the bone on the upper side (Fig. 19p). The curved blunt edge is polished by use, but whether it served the same purpose as the caribou scapula scrapers (p. 146) or was used as a gut cleaner is not clear. Only three other examples of these tools have ever been reported¹; one from West Greenland without further locality data, one from the earliest culture at Angmagssalik, and the third from Sarfalik in Knud Rasmussens Land.

SLEDGE SHOES: Of the five fragments of whalebone sledge shoes, three have peg fastenings with widths of $1\frac{1}{8}$ inches to 2 inches; two pieces, $2\frac{1}{4}$ inches wide, show a combination of peg and thong lashing (Fig. 19j, k).

DOG HARNESS TOGGLES: Of three broken dog harness toggles only one (Fig. 19s) is sufficiently complete for description. Like the others, it is of whalebone, apparently made from a portion of an old sledge shoe. Both line holes run in the same direction. Forward of the smaller hole, the toggle has been thinned on both sides and a notch made at the tip so the dog trace line would occupy a fixed position.

CARRYING OR DRAG LINE TOGGLE: A single whalebone specimen (Fig. 18k) $3\frac{1}{4}$ inches long found in House 1 has a triangular opening made by drilling three holes and chiseling out the intermediate bone. This resembles the Thule culture drag line handles.

KAYAK PADDLE TIPS AND EDGING: A kayak paddle tip (Fig. 19h), made of whalebone, is a combination of the usual flat ferrule-like tip and the ordinary peg-fastened edging. The socket for the tip of the wooden blade, cut by

¹ Larsen, 1938, 60.

drilling, is $\frac{1}{2}$ inch deep and has holes for a small pin. The portion extending along the edge of the blade for $2\frac{3}{8}$ inches has five peg holes; the opposite side is broken off. A piece of whalebone paddle (60.1-6846) edging has apparently been broken from a similar paddle tip. Another paddle tip (Fig. 19i) is cut with the grain of the whalebone, at right angles to the line of the blade, and had no attached edging portion.

BODKIN: A thin bone implement (Fig. 19f) has a drilled hole at one end and a worn blunt point at the opposite end and may be classified as a bodkin. It resembles very closely certain artifacts classed by Mathiassen as "trout needles."¹

WHALEBONE OBJECTS: A whalebone tool (Fig. 19g), its purpose not clear, has a blunt wedge-like point with a worn edge, slightly concave sides, and roughly chopped butt or top.

A cylindrical whalebone object may possibly be a portion of a harpoon foreshaft or blubber fork. It is nearly round in cross-section, $11\frac{1}{2}$ inches long by about $\frac{1}{2}$ inch in diameter. One end is rounded in the fashion of foreshaft tips, the other is broken.

A baleen knife, a toy (Fig. 19e), is $9\frac{1}{4}$ inches long. Its outline resembles a white man's hunting knife with a hilt.

A baleen spoon (Fig. 19o) was roughly made with a narrow bowl which has been hollowed out on one side.

TUB STAVE: A tub stave (Fig. 19r), found in the midden, is the only example known to the author outside of Greenland. Seven and one half inches long by $\frac{1}{4}$ inch thick, it tapers from $1\frac{1}{2}$ inches to 1 inch and has a V-shaped slot for the bottom instead of the usual square groove found in the Greenland specimens. This one is of soft wood, apparently of local origin, and is split from a larger piece. Although there is no record of Labrador Eskimo making coopered wood stave tubs and buckets, they had the opportunity to observe them in use among the whites and occasionally may have attempted to make some for themselves.

COOKING POTS: Of the 19 fragments of cooking pots recovered, only two have any special characteristics. One of these, from the midden, is a crudely reworked corner section of a small pot which originally had a thin narrow lip on the outer surface and two decorative lines along

the top. A single suspension hole passes from the top of the rim to the outer surface. The quality of the original workmanship suggests that it was made prior to the development of the Type III house, found and re-utilized by the people responsible for the midden refuse.

Between the floor paving stones of House 1, where it was probably placed at the time the house was built, was found an end section of a pot with two decorative grooves on top and a third on the outer side of the rim. Two and one half inches below the lip is a hollow grip about 3 inches wide and $\frac{1}{2}$ inch deep; a suspension cord hole has been bored from the top of the rim to the interior of the vessel.

COOKING LAMPS: In the sod over the bed platform of House 1 was a perfect lamp (Fig. 20), $21\frac{1}{4}$ inches long by $10\frac{1}{2}$ inches wide, without an inner ridge. It must have been placed where it was found very shortly after the abandonment of the house.

From the occupational refuse we have one half of a small repaired lamp, originally about

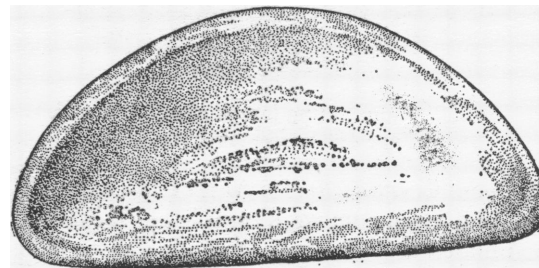


FIG. 20. Soapstone cooking lamp associated with Type III house, Avertok.

9 inches long by $4\frac{1}{2}$ inches wide. There is neither an inner ridge nor a decorative groove on the rim.

A reworked corner fragment of a well-made lamp with a single decorative groove along the rim bears no trace of an inner ridge, but as its surface is crudely reworked, it is impossible to say whether it originally had one.

The eight additional lamp fragments from the midden and house can be characterized only by their crude workmanship.

ILLUMINATING LAMPS: From the midden and House 1 we have two small, crude illuminating lamps (Fig. 21a, b) which are nearly duplicates. Both are roughly oval in outline and are thick and heavy. One is $5\frac{1}{2}$ inches long by $3\frac{3}{8}$ inches

¹ Mathiassen, 1927, 58.

wide, with an inner hollow $\frac{5}{8}$ inch deep. The other is $4\frac{3}{4}$ inches long by $3\frac{3}{8}$ inches wide, with an inner hollow $\frac{5}{8}$ inch deep.

Among the fallen wall stones at the entrance floor of House 1 was a small roughly made triangular lamp (60.1-6676), $6\frac{3}{4}$ inches long by $3\frac{3}{4}$ inches wide, which may also have been an illuminating lamp.

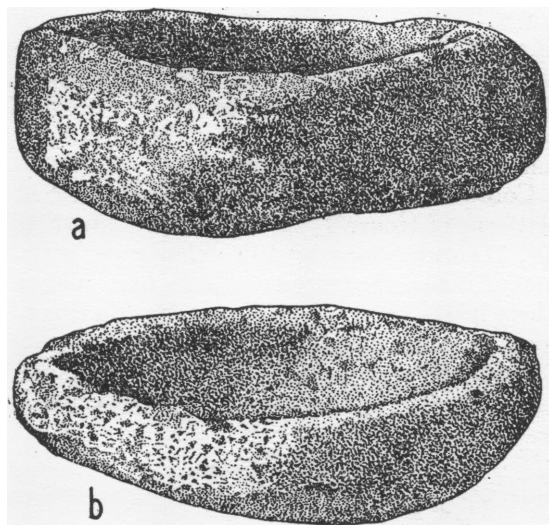


FIG. 21. Illuminating lamps associated with Type III house, Avertok.

MISCELLANEOUS STONE ARTIFACTS: Slate objects and fragments were completely lacking in the midden and House 1. A single quartz flake lay on the sand beneath the midden. For a space of about $\frac{3}{4}$ of an inch one slightly concave edge of this flake shows minute unilateral chipping which might have been produced by using that edge for a scraping tool. Its position in the

ground suggests that it probably had no relation to the occupation of the large house above the midden.

In the sand beneath the refuse in front of House 1, where it probably lay when the house was constructed, was found a roughly worked rectangular quartz blank. Since its margin is only partially retouched with bilateral flaking, it is doubtful that it could have been utilized as a tool in its present form.

WORKING TECHNIQUES: The worked bone fragments found in the midden and House 1 demonstrate that all known Eskimo techniques for working bone were practised at this site: cutting by chopping and circular grooving, cutting by sawing opposing grooves, and drilling rows of holes. The commonest method of cutting observed was by chopping, presumably with an adze. A few cuttings seem to have been made with iron saws.

EVIDENCE OF WHITE CONTACT: Both the midden and House 1 yielded abundant evidence of white contact, with the greater proportion in the midden. In addition to many iron nails, such finished objects as an iron knife blade and table or kitchen knives, an iron key, an iron fishhook, a piece of an iron pot and various other metal objects, glass bottle fragments, bits of chinaware and crockery were most plentiful in the midden. House 1 also produced several pieces of heavily oxidized sheet lead. Fragments of brick-like tile were found in both the midden and House 1. The abundance and variety of this evidence points to direct contact with Europeans, dating at least after the establishment of the mission at Ford's Bight, even perhaps following the start of the Hopedale mission.

MATERIAL FROM STONE CULTURE LODGE SITE

From the lodge floor, both inside and outside of House 9, we recovered about 600 small thin translucent quartz flakes, 18 fragments of bilaterally flaked projectile points or knife blades, and nine fragments of scraping tools with slight unilateral flaking. Unfortunately, there is not a single perfect specimen among them. Five are the tips of points, two are broad short stems expanding toward the base with edges smoothed by grinding, three have shoulders just forward of the stem, and the rest consist of various other

portions of blades. Fig. 22b illustrates pieces giving some clue to the original outline. The workmanship is generally good. The flake scrap, largely of thin long chips, shows considerable technical skill. It must be remembered, however, that the material used was of excellent quality.

The exact identity of this material is in question. Strong¹ refers to it as translucent chalcedony, though it differs almost as much from

¹ Strong, 1930.

most chalcedony as it does from common white quartz. Fractured surfaces have the texture of sand-blasted clear glass, and it has a similar translucence and color. A few pieces range to bluish black in color and others are mottled, somewhat like moss agate. In 1927 I found two habitation sites in Eclipse Harbor in northern Labrador where flakes of this material were very abundant. It also occurs in the form of flakes and artifacts in southern Labrador and northern Newfoundland. In the collection in this Museum are a few implements from Maine which are also made of it, but beyond the range indicated I know of no other area in America which yields more than sporadic examples of artifacts made of this stone.

An isolated specimen (Fig. 22a), presumably the product of the same culture responsible for the items from the lodge site, was picked up along the beach northwest of the present Hopedale mission. It is a banded chert blade $2\frac{3}{4}$ inches long by 1 inch wide. One side of the

stem is slightly smoothed, the edge forward of it is rather sharply beveled, as though it had

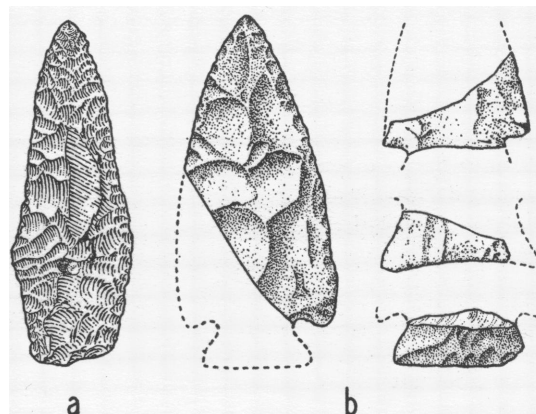


FIG. 22. Chipped stone blades.

been a knife blade which was resharpened while still in the handle.

CONCLUSIONS

The excavations at Avertok demonstrate that the main utilization of the site has been by Eskimo culturally ancestral to the present Eskimo population. A distinct earlier occupation, either Eskimo or Indian, is indicated, but the material recovered does not add to the existing knowledge of these people. Its distribution, however, reveals a lack of contact between the two groups and points to an interlude between occupations which might amount to several centuries.

Before comparing the general aspects of the objects recovered in the different types of houses, it may be well to comment on the absence at this site of the house form designated as Type II which was found at Sites 4 and 5. The fact that none of this type of house was uncovered does not necessarily prove its absence. Once we had determined that the better preserved ruins were relatively recent, all our efforts were directed toward locating and excavating the oldest, less obvious, examples. This, it is believed, explains the results at Site 1, as far as house types are concerned.

A comparison of the meager material from Types Ia and Ib houses does not reveal any change in the native culture, though there is probably a slight time difference between the

two. Type Ia houses contain no evidence of direct white contact. From the Type Ib group two items, a piece of pipestem and a large lead sinker, suggest at least indirect contact, not earlier than the last quarter of the sixteenth century.

The scarcity of artifacts and the lack of midden refuse are noteworthy for the whole group. This has only one logical explanation: the elapsed time since the arrival of the Eskimo in this district is relatively short. It might be argued that the scarcity of artifacts and lack of midden debris are due to an extremely small population, but, even taking this into consideration, it would seem that the time interval is short. The rarity of slate objects and the absence of slate scrap may be attributed to this short occupation period or, on the other hand, may be evidence that iron was obtained in sufficient quantity to outmode the use of slate. In northeast Greenland, where drift iron was fairly abundant, a lot of slate was also used, so the first reason suggested for the absence of artifacts seems the most likely.

The Type III houses do not, I believe, antedate the Ford's Bight Mission House erected in 1752 and may well have been built after the beginning of the Hopedale mission in 1781.

TABLE 1
DISTRIBUTION OF ARTIFACTS
SITE 1

House type House number	Ia				Ib					III		Total
	2	7	8a	8b	9	3†	4	5	6	1	Mid- den	
Whaling harpoon head	—	—	—	—	—	1	—	—	—	—	—	1
Sealing harpoon head	—	—	—	—	—	3	—	—	—	—	2	5
Harpoon foreshaft	—	—	—	—	—	—	—	—	—	—	1	1
Lance foreshaft	—	—	—	—	—	2	—	—	—	—	—	2
Foreshaft socket	—	—	—	—	—	1	—	—	—	—	—	1
Harpoon ice pick	—	—	—	—	—	2	1	—	—	—	1	4
Finger grip for harpoon shaft	—	—	—	—	—	—	—	—	—	—	1	1
Harpoon rest	—	—	—	—	—	1	—	—	—	—	—	1
Dart foreshaft	—	—	—	—	—	1	—	—	—	—	—	1
Fish spear	—	—	—	—	—	1	—	—	—	—	1	2
Fish line sinker	—	1	—	—	—	—	1	—	—	—	—	2
Quiver handle	—	—	—	—	—	—	—	—	—	—	1	1
Toy bows, wood and baleen	—	—	—	—	—	—	—	—	—	—	3	3
Gull hook	—	—	—	—	—	—	—	—	—	—	1	1
Men's knife handles	—	—	—	—	—	3	—	—	—	—	2	5
Women's ulus, iron blades	—	—	—	—	—	—	—	—	—	—	3	3
Toy baleen knife	—	—	—	—	—	—	—	—	—	—	1	1
Snowknives, whalebone	—	—	—	—	—	4	—	—	—	—	1	5
Snowknives, iron blade	—	—	—	—	—	2	—	—	—	1	3	6
Snow beater	—	—	—	—	—	1	—	—	—	—	—	1
Wedges	1	—	—	—	—	2	—	—	—	1	—	4
Scrapers, caribou scapula	—	—	—	—	—	3	—	—	—	—	—	3
Scraper, bear jaw	—	—	—	—	—	—	—	—	—	—	1	1
Sledge shoes, peg fastening	—	—	—	—	—	2	—	—	—	—	2	4
Sledge shoes, thong fastening	—	—	—	—	—	4	—	—	—	1	—	5
Sledge shoes, thong and peg fastening	—	—	—	—	—	1	—	—	—	—	2	3
Harness toggle	—	—	—	—	—	1?	—	—	—	2	1	4
Carrying toggle	—	—	—	—	—	—	—	—	—	1	—	1
Kayak paddle tip	—	—	—	—	—	—	—	—	—	—	2	2
Kayak paddle edging	—	—	—	—	—	—	—	—	—	1	1	2
Bodkin	—	—	—	—	—	—	—	—	—	—	1	1
Baleen dish rim	—	—	—	—	—	—	—	—	—	—	1	1
Baleen spoon	—	—	—	—	—	—	—	—	—	—	1	1
Red paint	—	—	—	—	—	—	—	—	—	—	1	1
Wooden tub stave	—	—	—	—	—	—	—	—	—	—	1	1
Wooden ball	—	—	—	—	—	—	—	—	—	—	1	1
Wooden float plug	—	—	—	—	—	—	—	—	—	—	1	1
Potsherd, Indian	—	—	—	—	—	—	1	—	—	—	—	1
Pendant, walrus teeth	—	—	—	—	—	—	—	—	—	1	—	1
Pendants, bear teeth	—	—	—	—	—	2	—	—	—	—	—	2
Unidentifiable and unfinished objects	—	—	—	—	—	4	—	—	—	1	8	13
Cooking pots, steatite												
Vertical and sloping sides	—	1	4	1	—	2	3	2	1	1	1	16
Overhanging sides	—	—	—	—	—	1	—	—	—	—	—	1
Indeterminate fragments	3	2	8	1	—	19	4	9	7	7	10	70
Small dishes or toys	—	—	1	—	—	—	—	—	—	—	—	1
Lamps												
With inner ridge	—	—	1	2†	—	1	—	1	1	—	—	6
Without inner ridge	—	—	—	—	—	1	—	—	—	3	—	4

TABLE 1—(Continued)
DISTRIBUTION OF ARTIFACTS
SITE 1

House type House number	Ia				Ib					III		Total
	2	7	8a	8b	9	3	4	5	6	1	Mid- den	
Illuminating	—	—	—	—	—	1?	—	—	—	2	1	4
Indeterminate and unfinished frag- ments	—	1	1	—	2	1	—	1	1	1	7	15
Toy	—	—	—	1	—	—	—	—	1	—	—	2
Pyrites	—	—	—	—	—	—	1	5	1	—	—	7
Quartz flakes	—	—	—	—	1*	—	—	1	—	—	1	3
Quartz, rough blades	—	—	—	1	—	—	—	—	—	—	—	1
Slate												
Arrow or harpoon blades	—	—	—	1	—	—	—	—	—	—	—	1
Whaling harpoon blades	—	—	—	1	—	—	—	—	1	—	—	2
Discoidal float plug	—	—	—	—	—	—	—	1	—	—	—	1
Roughly chipped blanks and worked fragments	—	—	—	—	—	—	1	1	—	—	—	2
Whetstones												
Four-sided sandstone	—	—	—	—	—	1	—	1	—	—	1	3
Flat irregular shape	—	—	1	1	—	4	—	1	2	1	—	10
Oblong, used both faces	—	—	2	—	—	—	—	—	1	—	—	3
Oblong with finger grip	—	—	—	1	—	—	—	—	—	—	—	1
Artifacts, European manufacture												
Iron nails	—	1	—	—	—	x	—	1	1	x	x	x
Iron knives	—	—	—	—	—	1	—	—	—	1	4	6
Miscellaneous pieces of iron	—	—	—	1	—	3	1?	1	1	x	x	x
Lead sheet	—	—	—	—	—	—	—	—	—	x	—	x
Lead sinker	—	—	—	—	—	—	—	1	—	—	—	1
Tile	—	—	—	—	—	—	—	—	—	x	x	x
Glass and chinaware	—	—	—	—	—	x	—	—	—	x	x	x
Pipestem	—	—	—	—	1	—	—	—	—	—	—	1

‡ House 3 is a blend of post- and pre-mission material.

* Present because house is on old lodge site.

† Shown by toy.

x Signifies that the object listed was plentiful, that the actual number was not recorded.

By that time the use of slate had completely ceased and the inner ridge in the lamps had become obsolete. The workmanship on the stone pots and lamps is cruder than on the earlier examples, and even simple decoration was no longer attempted. The transition from whale-bone snowknives to those with two-piece handles and iron blades also occurred during this occupation period.

The abandonment of tunnel entrances to the houses and the substitution of a small ante-room, as shown in the second occupation of House 3, probably occurred after 1800. Coincident with the adoption of this change, or pos-

sibly later, was the disappearance of thong-fastened sledge shoes and the development of the present method of fastening entirely with pegs.

Only two additional items warrant further comment. One of these, the discoidal float plugs of slate and wood, are fairly well known from northeast Greenland. Recently, Jenness described 18 of the slate plugs from the Belcher Islands.¹ At that time he was unaware of the northeast Greenland finds and their interpretation. In connection with their presence in Hudson Bay, it is interesting to note

¹ Jenness, 1941, 187-206.

that similar float plugs of wood were in use as late as 1898. In the American Museum ethnological collection are two wooden plugs collected from the Aivilik by Capt. George Comer (Fig. 23). He has written the native name *Iwihs wark tuck* (the *hs* in the first part of the

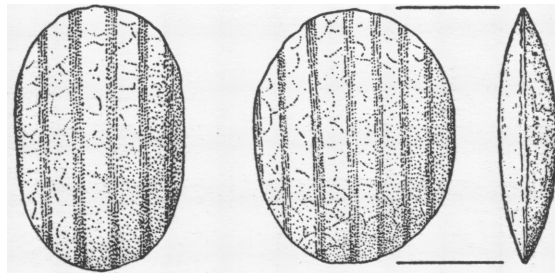


FIG. 23. Wooden float plugs used by the Aivilik of Southampton Island.

name is somewhat illegible and subject to question) on them and has also added the information that these are used to stop holes in the float. The exact manner of attachment is illustrated by Larsen who found one with a portion of the skin float still attached. He writes:

It has been placed over the hole on the hair side, whereafter the skin was drawn over it and tied below it by means of a plaited sinew thread.¹

The only other known location for these objects is in the collection gathered by the author in 1933 in a midden at Cape York, Greenland. In this series is a single fragment of a slate disc (Museum of the American Indian, Heye Foundation, 15-5292). Similar objects, two of baleen, one of bone, and one, unfinished, of narwhal ivory may have served the same purpose. All of these belong to the pre-white contact period at Cape York, unless a single wooden bead, shaped like two cones joined together at their bases, occurring in the same portion of the midden, indicates Norse contact.

The presence of the whetstone with a finger grip is also interesting. These whetstones are one of the characteristic features of the early northeast Greenland culture where they are widely distributed and common. The fact that only one was found here serves to emphasize further the late and limited occupation of the Hopedale area.

¹ Larsen, 1934, 143, Fig. 35; see also Glob, 1935, Pl. 2, specimen J, and his comment on page 48.

ANNIOWAKTOOK ISLAND, SITE 2

AT ABOUT THE CENTER of the east side of this island is a rather narrow, steep-bottomed gully with bare rock ridges on either side. It contains three large rectangular house ruins, almost identical in size and shape with the three behind the midden at Avertok. A fourth is set a little to one side, on the nearest section of level ground (Fig. 24). The entrance to the lowest, House 1, is only 2 or 3 feet above the beach, while House 3 is about 30 feet above the same level. As they appeared to be so nearly identical, only House 1 was measured. Its length, inside the wall ridges, was 40 feet; width, 24 feet; entrance tunnel, 20 feet. All four ruins were in the same state of preservation, overgrown with grass. The interior of House 2 was filled with willows.

Test pitting showed that the largest accumulation of refuse was in front of House 3; consequently, an area 30 by 15 feet was excavated there. The refuse layer, which was covered with about 4 inches of sod, varied in thickness from 3 to a maximum of 18 inches, at one spot, and consisted of animal bones and some mussel shells.

As the 25 artifacts found were sufficient to place the ruins chronologically, and as time was limited, none of the interiors were disturbed.

Some years ago Otto Brown, of Hopedale, had dug a little inside House 3, but he was discouraged by the absence of artifacts. As far as it is possible to judge from the distribution

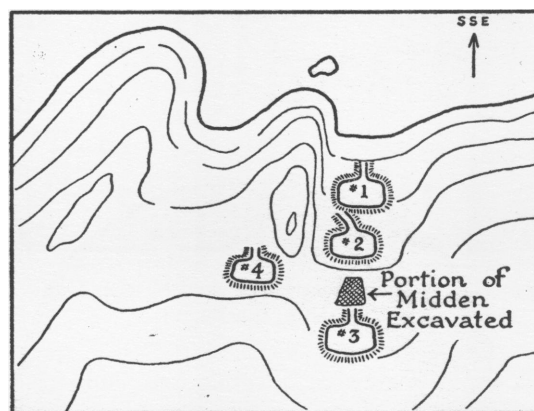


FIG. 24. Sketch map of Site 2, Anniowaktook Island.

of the refuse about these houses there was only one period of occupation. It appears also that all the houses were built and used at approximately the same time.

DESCRIPTION OF SPECIMENS

ARTICLES OF EUROPEAN MANUFACTURE: Scattered in the midden were two fragments of coarse red tile, a piece of brick, and a sherd of coarse, unglazed crockery. Similarly distributed were several iron nails and spikes, one of the latter hammered flat for about half its length, for use as a knife (Fig. 25e). Two side prongs for bird spears made from iron rods were also found. Iron had apparently completely replaced the use of slate, for no slate flakes or fragments were present.

LAMPS AND POTS: Examples of lamps are limited to four toys of steatite, all without an inner ridge (Fig. 25b, g). Two toy pots and five fragments of full-sized vessels are of the usual rectangular curve-sided form (Fig. 25a).

MISCELLANEOUS ARTIFACTS: One unfinished harpoon point (Fig. 25h) can be classed as

Mathiassen's Type A II c 1; thin, single spur, blade and line hole parallel.¹

Three nearly cylindrical pieces of whalebone may be fragments of foreshafts; two have been cut after being broken.

An ice pick for a harpoon must originally have been over 5 inches long with 3 inches projecting beyond the end of the harpoon shaft. The point is rounded and blunt, while the portion in contact with the shaft forms a tapering, four-sided tenon.

One fragment of a lance foreshaft has two rivet holes for securing the blade.

One sinew twister of wood was originally about 2½ inches long. A small hole passes through the middle (Fig. 25i).

¹ Mathiassen, 1927, 12.

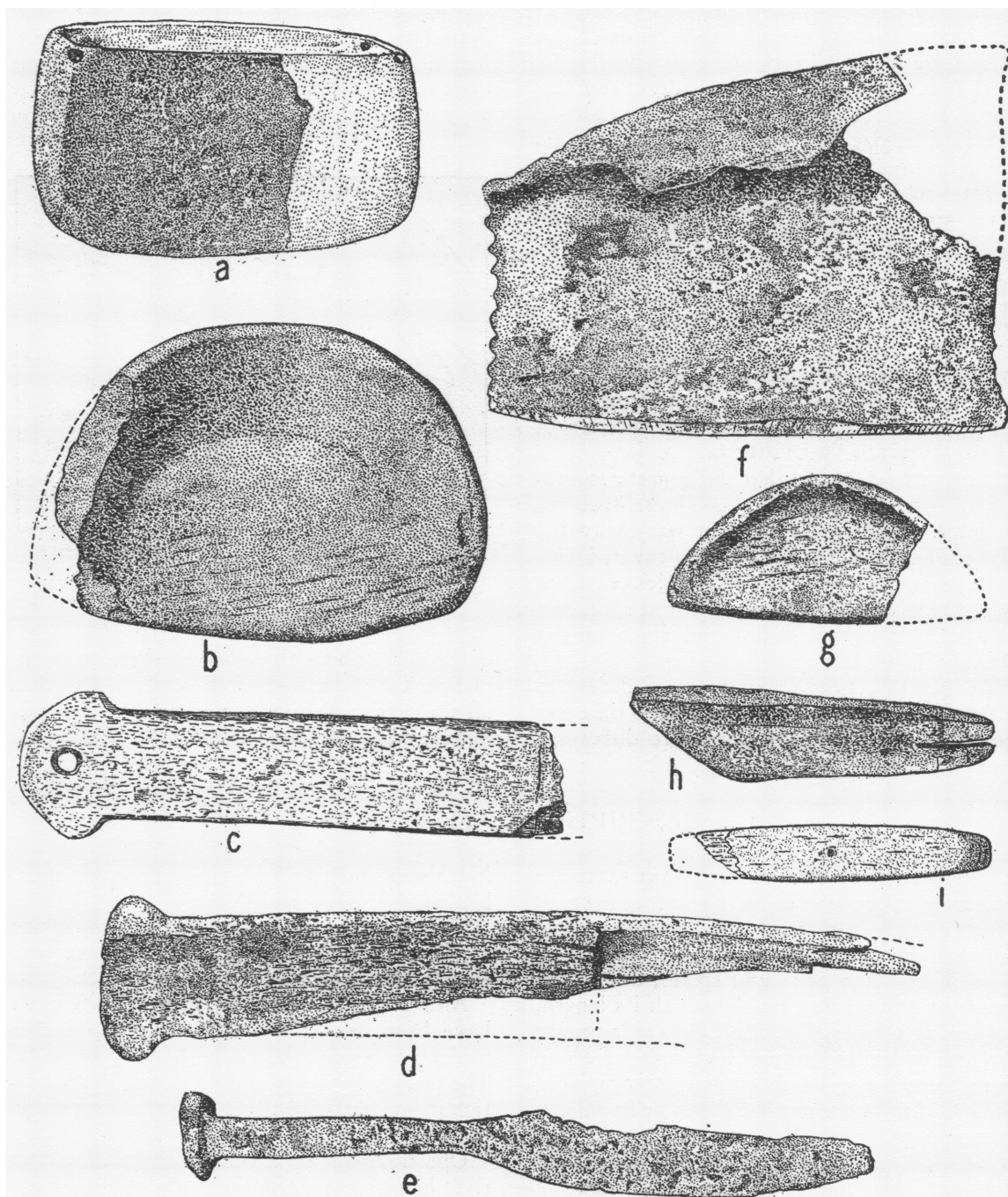


FIG. 25. Artifacts associated with Type III house, Anniowaktook Island.

A narwhal jaw scraper (Fig. 25f) cut from near the middle of a jaw by drilling a row of successive holes had its lower edge sharpened by cutting or scraping both the inner and outer surface of the bone. Larsen distinguishes three forms of these scrapers, depending on the portion of the mandible from which they were cut and which edge is sharpened. He remarks:

This type is known from Angmagssalik to Clavering Island on the east coast of Greenland, but is unknown on the west coast. Where it originated is difficult to say. However, since it cannot be said to be common anywhere but in Knud Rasmussens Land, it probably originated there.¹

In ethnological collections, examples have been secured in Cumberland Sound, Baffin Island,² and at Cape Chidley, Labrador.³ Another specimen found by Cadzow in a late house ruin at Cape Dorset, Baffin Island, in 1927, is in the collection of the Museum of the American Indian, Heye Foundation (15-8123). Like the Anniowaktook Island scraper, the latter was cut by drilling successive holes.

A handle of antler, with a portion of a hollowed blade (Fig. 25d) may have been a tool for removing water from caribou fur, but it is in itself inconclusive.

A woman's knife, with an iron blade, bone tang, and wooden handle is like the specimen from the midden at Site 1 shown in Fig. 191 (now in the St. Johns Museum).

Two whalebone knife handles, rectangular in cross-section, with a suspension hole (Fig. 25c) have the blade slot cut squarely across the full width of the handle. A small bone fragment may have come from a similar handle.

One fragment of a whalebone sledge shoe, 2½ inches wide, has peg fastenings.

A section of a small box, 1½ inches high, made from the hollow end of a walrus tusk had the bottom secured with small ivory pegs.

A fragment of whalebone was perhaps the tip of a snowknife.

TECHNIQUES: Various bone and ivory fragments show cutting by chopping encircling grooves; one example has what appear to be the marks of an iron saw.

AGE

If we assume that the tile and brick came from the first mission house, then 1752 is approximately the earliest date that can be as-

signed to these ruins. On the other hand, the use of this location and the indicated concentration of population here may have been prompted by the establishment of the Hopedale mission in 1781. The absence of beads and other trade articles supports the assumption that the site was occupied at least prior to 1800.

¹ Larsen, 1938, 59, 60.

² Boas, 1901, 33.

³ Hawkes, 1916, Figs. 29, 93.

NAPATALIK ISLAND, SITE 3, AND ADJACENT AREA

ACCORDING TO HEINRICH the name Napatalik means "island of plenty trees." It is also referred to as "Spirit Island" by Strong,¹ who made a brief visit there in 1927. The origin of the latter designation is uncertain, but the native name obviously refers to the growth of spruce on various parts of the island. All but the east shore was examined. On the southern side of the island high hills and cliffs rise almost from the water's edge. Such slopes as exist are almost too steep and rocky to be good house sites. This shore, fairly straight for about a

mile, rounds gradually to the north, then juts out westward, forming a sloping promontory with a fine sandy beach facing south.

On the southerly side of this point, two large rectangular house ruins, almost identical in size and shape, lay next to each other (Pl. 11). One, built in a natural hollow, sheltered by a rock outcrop along the rear, was filled with spruce and willow trees. The largest living tree was about 48 years old. Beside it was a stump, slightly larger in diameter, which had been cut some years ago, but was too rotted for the growth rings to be counted. This was obviously the older of the two houses, as the turf walls of the first were still well defined and preserved. Excavation was limited to the clearing of the older ruin and an examination of about 150 square feet of the shallow midden refuse lying between the entrances of the two houses.

After clearing, the house was found to be rectangular, with square corners, 30 feet long by nearly 16 feet wide (Fig. 4g). The sleeping platforms of sand, at most 12 inches above the floor paving, were faced with upright stones. They were built against the rear and side walls and had narrow extensions along the front wall to the sides of the entrance. The floor had a very irregular outline because of three small extensions back into the rear and side platforms. One foot below the level of the house floor the paved floor of the entrance rose slightly towards the outer end for 10 feet, where there was a step a foot high, then continued out about 3 feet more. The rear of the house was formed by the smooth face of an exposed rock ledge rising 3 to 4 feet above the bed platform. The side and front walls were of turf. Upright posts probably supported the roof timbers, but as none of these remained, it is impossible to reconstruct the roof plans. This ruin yielded only the following artifacts:

One fragment of a deep, rectangular lamp, steatite

Three indeterminate steatite pot fragments

One section of a large steatite pot, with the rim ornamented with a single groove along the top, two grooves on the outside, and suspension holes passing from the top to the outside. This had been repaired with lead and baleen lashings.

One section of a much smaller steatite pot with

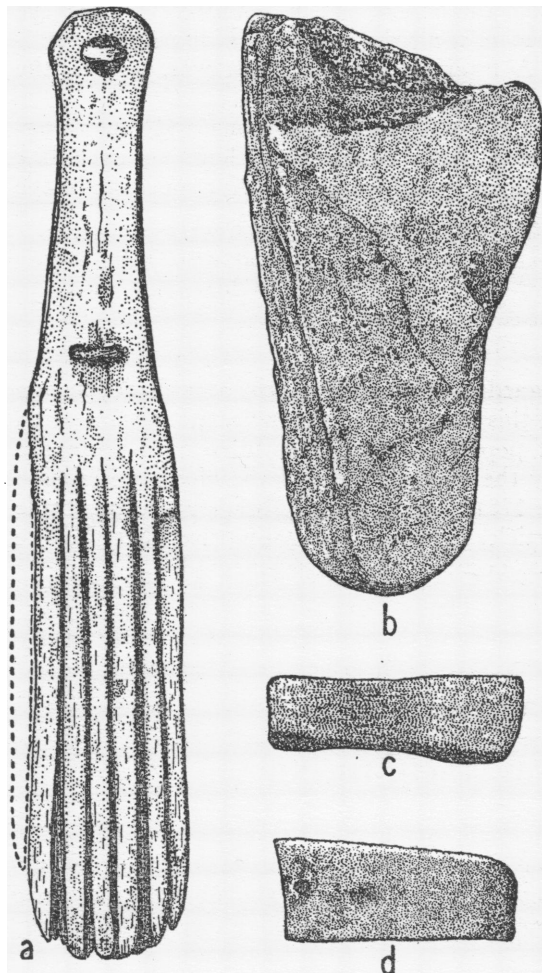


FIG. 26. Artifacts from Type III house, Napatalik Island.

¹ Unpublished field notes.

the same kind of ornamental lines and suspension holes

One four-sided sandstone whetstone, $2\frac{1}{2}$ inches long (Fig. 26c)

One oblong, flat slate whetstone showing an attempt to cut a suspension hole, $2\frac{1}{4}$ inches long (Fig. 26d)

One slate scraper or skin softener (Fig. 26b)

One lump of pyrites

One baleen whisk broom (Fig. 26a)

Various objects indicating contact with whites

The baleen whisk broom, preserved in oil-saturated sand beside a lamp stand, merits description, as it has not previously been reported as an article of Eskimo household equipment. It is $11\frac{5}{8}$ inches long and originally was about 2 inches wide. Four layers of baleen were fastened together by two lashings of the same material. After being secured, one end was shaped into a handle, the other split into seven

sections or strips $5\frac{3}{4}$ inches long by $\frac{1}{4}$ inch wide. One of the outer sets of these strips has since been broken off. The ends are worn and show considerable use.

The articles of European manufacture consist of 48 large iron spikes and nails, an iron ring, part of the lock from a flintlock musket, five glass fragments from two different bottles, one fragment of coarse red tile, and one section of clay pipestem. Also not of local origin were the many chips and pieces of oak scattered over the floor. Over 30 of the spikes had been buried together at the edge of one bed platform; the rest lay scattered over the floor.

The midden, varying from 1 to 8 inches in thickness, beneath 4 inches of sod, yielded only a small rim fragment of a steatite pot, and a sherd from an earthenware jug or bottle. Some pieces of sealskin had been preserved in an oil-saturated section.

AGE

The abundance of spikes and the oak wood suggest the accessibility of a wrecked vessel, or at least a portion of one. A wreck may have provided all the articles found, except the frag-

ment of tile which was apparently brought to this ruin as a curiosity and may have come from the ruins of the 1752 Moravian mission house.

OTHER REMAINS ON NAPATALIK ISLAND

Nearly buried in the turf some distance southeast of the ruins was a single tent ring, 10 feet in diameter. On higher rocky ground was a single tumble-down stone grave with rotted bone fragments, but no grave goods. Near the southeastern end of the island, two small shallow caves or shelters were visible from the water, but they contained no evidence of occupation. On the northern tip of the

island are two old square tent "rings" measuring 11 by 12 feet.

Some time after our visit to the island, we heard a report of one or two stone structures along the eastern shore, which we had not examined. The account was so vague that it was impossible to determine what they were. They might have been either meat caches or some kind of small shelters.

NORTH AND WEST FROM NAPATALIK ISLAND

At the southeast end of the island, called by the natives "place where we go for seals in the spring," a sandy point rises abruptly 6 to 12 feet above the beach and slopes gradually up to the hill behind. It is covered with sod, but has no trees. Though seemingly a good site for houses, only a few tent rings were found near the beach. A number of bare wind-swept hollows contained no artifacts.

A small cove along the southwest side has a few recent tent rings, but no houses. On a level, wind-swept saddle just above this cove, at about 60 feet elevation above the beach, a few quartz chips and two fragments of finished blades were found. These were the only artifacts and remains collected on the entire island.

On the next island to the north, Multa (this

name appears on some charts beside the fourth island north of Napatalik), a few more quartz flakes and one fragment of a finished blade were found on wind-swept ground at least 40 feet above the eastern shore. Eight or nine tent rings and a number of meat caches were seen on low bare rock on the southeast side of the island. No ruins of winter houses were located.

A portion of the mainland shore, northwest from Napatalik, as indicated on the map (Fig. 1), was searched, and 14 widely scattered tent rings were located, but we found no evidence of more permanent habitation. The head of the unnamed bay west of Napatalik was not checked, as Heinrich, claiming to be very familiar with it, insisted there were neither ruins nor good places for camps.

WEGOTAKALOK ISLAND

Along the shore of a cove on the western side of Wegotakalok Island, south of Napatalik, were four tent rings. Directly behind this spot, but up on an old beach terrace about 60 feet above the present shore, is a single winter house ruin, about 20 feet square, with an entrance tunnel. Several fairly well-preserved short posts, projecting above the interior surface, showed that it was too recent to warrant examination.

Located as it is, this house commands a good view in toward the mainland and to the southward in the direction of Manuels Island and the run leading to Hopedale. At the same time it is fairly well hidden from the view of anyone approaching from those directions. Heinrich, very much astonished to see a house at this distance from the beach and so located, immediately concluded it had been the home of someone anxious to hide from other people. Then he recollected that he had heard of a murderer, a certain Eskimo, who had lived at Rigolet and had quarreled with and killed another man. He fled north to Hopedale with his wife and several small children. Some time later, news of the incident at Rigolet came to Hopedale;

so, in the night, he and his family moved on. For years no one saw or heard of them. Heinrich knew nothing of the man's ultimate fate, but eventually his family returned, and a granddaughter, now an old woman, still lives at Hopedale. Her father was a baby at the time of the murder. Heinrich said he would tell her, "I not find house, white fellow find it," on the assumption that she would be glad to know that her grandfather's hiding place had not been found by another Eskimo. Later he did speak to her, and she admitted that her family had lived there for some years.

This is not the first time that unusually situated houses have been explained in this way. Larsen¹ mentions two houses on Cape Irminger (about latitude 68° north, longitude 31° west), so placed that he concludes the occupants must have dreaded attack. It would be well to remember these cases, for it could conceivably happen that the position of an ancient type of house, so located, might be incorrectly attributed to late changes in sea-land levels.

¹ Larsen, 1938, 74.

KARMAKULLUK, SITE 4

AS HAS BEEN REMARKED, "place of low walls of old houses" cannot be the original name for this settlement. Either the former name has been forgotten or the ancestors of the present population found ruins there when they moved into the district. For various reasons the latter supposition seems the correct one. Our helper, Heinrich, told us that, although he had never seen any ruins, he had heard that his own family once had a house along the shore of this cove. A song which he sang for us dates from that time. The text is as follows, recorded and translated by the Reverend Mr. Perrett:

Anânaralo pisudlarlunuk
Karmakullume nunakarluta
Publaujârsusidlalaujunga ila.

As my mother and I were out walking,
When we lived at Karmakulluk,
I found a small bottle.

Heinrich explained that the song did not refer to him, saying that the incident occurred before the Hopedale mission was established (1781). More than the song has survived in tradition, for he explained that the bottle had washed ashore and was found caught under a stone; that it was the first bottle the people had ever seen; also that it was round-bottomed and would not stand upright. The presence of a living spruce tree, about 115 years old by ring count, in the last house occupied, shows that this tradition is at least that old. The absence of positive white contact material probably justifies the claim that it dates from pre-mission days.

Another tale still extant about this place concerns an old man who had been a whale hunter. Before he died he requested that his body be placed on the hilltop overlooking the harbor, "so he could watch the whales and the hunting, and see what was going on." In support of this legend, what appears to be a tumble-down grave may still be seen on this hilltop.

Quite naturally, this introduction to Karmakulluk piqued our interest. It promised ruins, possibly ancient, unnoticed in recent years, some of which may have been connected with the present population. When we rounded the

northern point and rowed into the small harbor, it was immediately apparent that it was a good situation. From the high hill directly behind, crowned by a single boulder, bare rocky ridges slope out to form the sides of the harbor and enclose a very definitely limited bit of spruce-covered ground (Fig. 27). Behind a strip of sandy beach, an evenly sloping area is divided in two by a small stream; the northern half is a low wet bog; the southern half rises sufficiently above high-water mark to give good drainage. This gave us a clearly defined area where houses might have been built.

Ultimately we located three double and five single houses, overgrown and hidden by spruce trees (Pl. 11). The walls of some of the houses were visible as low mounds, others were merely depressions, and two were discovered by probing. In the rock-free sandy subsoil, floor paving was easily located, even without visible traces at the surface. As the area suitable for the construction of houses was so very limited, it is quite certain that the ruins found represent the remains of all the houses that were ever built there. The entrance tunnels and floors of each house were paved; tunnel walls were usually, but not entirely, of upright stones, while turf had been used in most of the remaining wall construction. Bed platforms were made of sand, the front edges held in place by retaining stones. Here the similarity ends. We can distinguish apparently three house types. House 8 (Fig. 3c), the smallest, belongs to Type Ia (Houses 2, 7, and 8 at Site 1). Across its rear, a single bed platform had a recessed compartment in its front edge. The actual position of the interior edges of the walls could not be accurately traced at all points, but the outline given on the plan cannot be far wrong.

Larger, but with square rear corners, were the double houses (Nos. 2 and 5, Fig. 3i,j). In each room a single bed platform extends across the rear. In House 5 a log along the back of the sleeping platform, 10 inches below the surface, extended the full width of the platform. These houses have been designated as Type Ic.

Radically different are the plans of Houses 1, 3, and 6 (Pl. 12 and Fig. 4a, b, c). All were rectangular, with the longest dimensions at right angles to the line of the entrance tunnel.

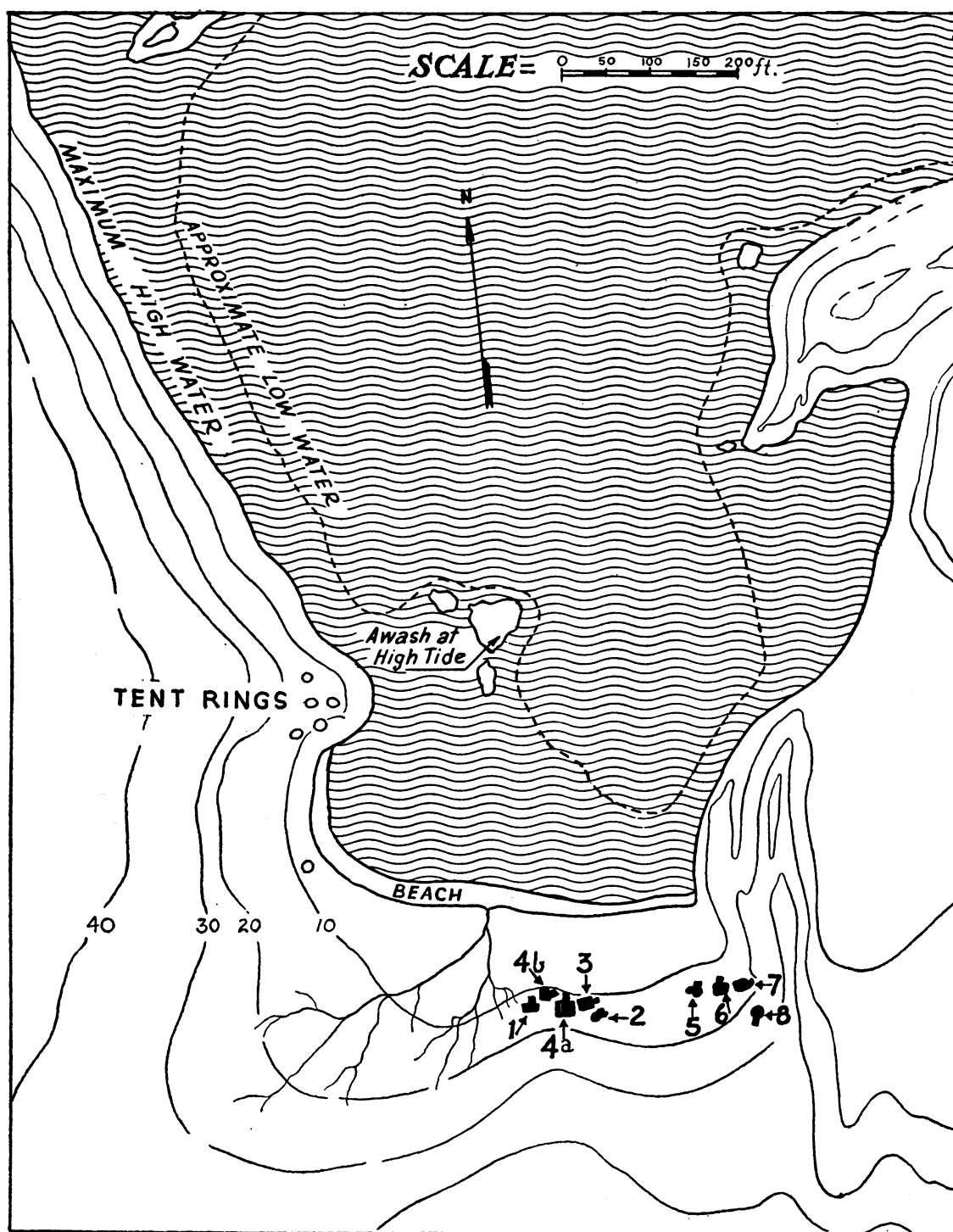


FIG. 27. Map of Site 4, Karmakulluk, showing location of House Sites 1 to 8.

Each had two sleeping platforms, one on each side of the paved floor. One of the two bed platforms in House 6 was faced with a log instead of stone. In one instance, the floor paving extended at the same level to the rear wall of the house. This differed in House 1 and House 3, as there was a slight stepped rise in the paving along the rear wall. Near the center of the rear half of the floor, House 3 had a meat pit, 4 feet deep, covered with a large flat stone. This type of house, as far as known, has not been previously reported.

Only House 1 retained any trace of roof structure. Apparently when it collapsed, the whole eastern half had fallen intact across the bed platform and floor. The rafters were visible as flat streaks of brown rotted wood 4 to 6 inches wide, about an inch thick, and showed clearly in contrast with the surrounding dark humus. They lay at right angles to the eastern wall, their sides parallel, the space between them varying from nothing to 3 or 4 inches. Some of the rafters still bore traces of bark. Where they could be followed to their ends, they measured 15 feet in length. The debris in the opposite half of the house was considerably disturbed by the removal of stumps and roots, but enough was found to indicate that it had been covered by poles arranged in the same fashion. Portions of what appeared to have been a ridge pole were found. Only a gabled roof with the ridge along the line of the entrance tunnel could account for the presence of poles arranged in this fashion. Knowing the width of the house, at most 25 feet, at least 23 feet, we can reconstruct the probable pitch of the roof (see Fig. 4a).

The shape and construction of House 7 were altered somewhat by the outcropping of bed rock encountered by its builders. Apparently they had intended to build a house with bed platforms on each side of the floor. Finding the situation unsuitable, they placed one of the platforms in a rear corner; the other extended the full length of one side in the usual way. A portion of the floor paving of this house had been torn up and removed after it had been abandoned.

Also because of the bed rock outcrop the entrance differs from the usually straight tunnel. Charcoal was found among the entrance paving stones, but as these showed no effects of fire, this place had obviously not been much used as a hearth.

House 4 was by far the best preserved in the settlement; its condition was such that we had no reason to doubt that it had been occupied after the others had fallen to ruin. Actually it consists of two houses, designated as House 4a and House 4b, with a common entrance tunnel. The former is the largest house in Karmakuluk, related in groundplan to Type 2, the rectangular two-bed platform variety. Growing inside the ruin was a spruce tree approximately 115 years old, so we have a minimum date for the abandonment of the house.

House 4b is, curiously, very like the largest room of House 2, with its single bed platform across the rear. We have no reason to suppose that this is an earlier house repaired and reoccupied when House 4a was built. If it had been, some trace of the earlier tunnel would have survived.

DESCRIPTION OF SPECIMENS

Anyone who has worked in Eskimo ruins and middens will realize how disappointing it was to recover only 49 artifacts from the entire village, representing only 17 types of objects. This total includes unworked iron objects, such as nails and spikes, and unworked fragments of slate and soapstone. The explanation for this dearth of artifacts lies partly in the situation. Porous subsoil, complete annual thawing of the dirt, sand in and under the ruins, and highly acid humus all accelerate the disintegration of bone and ivory. From the complete absence of midden debris in front of the

ruins, we assume that there was apparently never any extended period of occupation, so even if conditions controlling preservation had been more favorable, these ruins would not have yielded many artifacts. All that can be done with this small quantity of material, with the exception of the iron, is to follow the procedure used previously and compare it according to house types (see Table 2).

TYPE 1A HOUSE (No. 8)

SLATE BLADES: The basal portion of a slate whaling harpoon blade found in House 8 was

originally about $3\frac{1}{2}$ inches wide and has a much better finish than those from the Type IIa houses. To judge from the wear on one edge and the corner of the break, it seems to have been used in its present form as a skin softener.

From the same ruin we have a finished slate arrow blade (Fig. 28b) and a roughly chipped slate blank for a similar point (Fig. 28a).

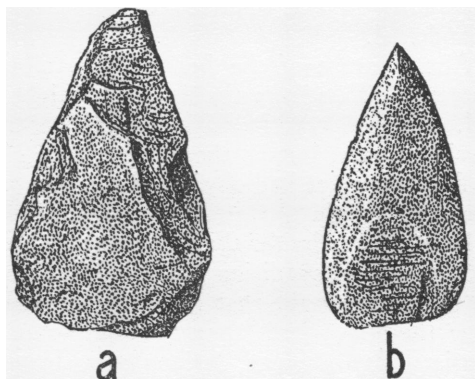


FIG. 28. Unfinished and finished slate arrowpoints, House Type Ia, Karmakulluk.

COOKING LAMP: In House 8 we found enough fragments of a single lamp to make a complete restoration (Fig. 29). It is $17\frac{1}{2}$ inches long and $9\frac{1}{4}$ inches wide. It has thin and well-smoothed

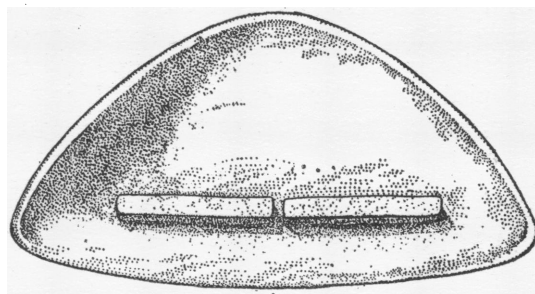


FIG. 29. Cooking lamp, restored, House 8, Karmakulluk.

walls and formerly had an inner ridge, about 11 inches long by $\frac{1}{2}$ inch wide, with a vertical opening at the center.

TYPE Ic HOUSE (Nos. 2, 5)

TOY VESSEL: An unfinished pot, probably a toy, $2\frac{1}{2}$ inches long, had slightly overhanging sides and square ends.

WHETSTONES: An end fragment of a well-

made mica schist whetstone found in House 5 was much worn from use. A second whetstone of a fine-textured slate-like stone has ends and sides only partially smoothed and ground. Most of the wear is on one face. Hollows large enough to make good finger grips have been pecked in the center of the two broadest surfaces, as though the implement had also been intended for use as a hammer.

TYPE IIa HOUSES (Nos. 1, 3, 6, 7)

WHALING HARPOON HEAD: The only harpoon head found is one for whaling. It is of whalebone, nearly a duplicate of the one found at Site 1 (Fig. 8b). The original length was possibly 8 inches; width, 2 inches; thickness, $\frac{3}{4}$ inch. It has a closed shaft socket which is quite shallow and about $\frac{1}{2}$ inch in diameter, a roughly square line hole, 1 inch by $\frac{7}{8}$ inch, and a blade socket at right angles to the line hole (Fig. 30).

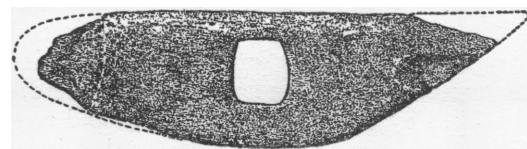


FIG. 30. Whaling harpoon head, House 3, Karmakulluk.

WHALING HARPOON BLADE: A nearly perfect slate whaling harpoon blade from House 7 (Fig. 31a) has thin delicate edges. Its surface is still rough from primary grinding and was probably not ready for use.

ARROW BLADE: A small blunt-edged triangular slate arrow blade from House 7 is obviously a toy.

MATTOCK BLADE: The mattock blade from the interior of House 6 (Fig. 32) was the only example found in the Hopedale area. It is made of a whale rib and is 24 inches long, $4\frac{3}{4}$ inches wide, and $\frac{3}{4}$ inch thick. The handle fitted into an oblong socket and was reinforced with lashings from the handle down to two holes 4 inches below the shaft socket.

WHETSTONES: From House 3 we have a flat irregular piece of mica schist, one surface of which has been used as a whetstone. A similar piece from House 7 appears to have been used on two faces.

SLATE BLANKS: From House 7 we have three

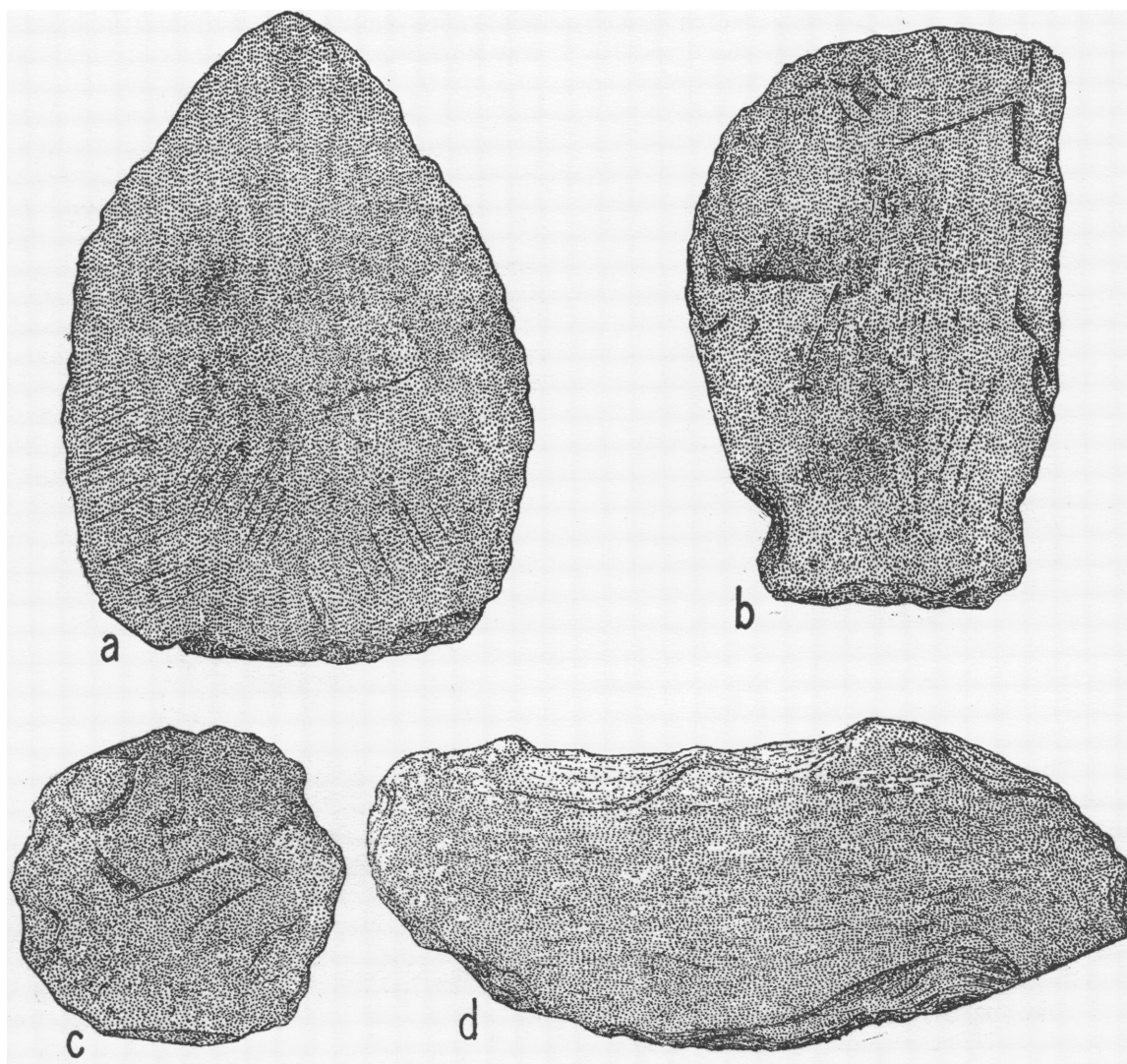


FIG. 31. Slate artifacts from Type IIa house, Karmakulluk.

roughly chipped slate blanks (Fig. 31b-d). One, slightly curved, $6\frac{3}{4}$ inches long by $2\frac{1}{2}$ inches wide, may have been intended for a skin-working tool like that shown in Fig. 33.

Another slate blank was probably intended as a blade for a man's knife. One side is nearly straight, while the other edge is curved. The third blank (Fig. 31c), a rough disc, could have served to make a slate float plug like that shown in Fig. 35.

STEATITE POT FRAGMENTS: Four fragments from a well-made repaired vessel from House 3 indicate that it had been over 12 inches long and 5 inches deep. In section, the thickness

varies from 1 inch at the top of the rim to as little as $\frac{3}{8}$ of an inch near the bottom. The flat top has two ornamental grooves; a lip on the outside has a single groove. Suspension holes were bored from the top of the rim to the outside.

Another pot fragment from the same ruin, showing similar thinning toward the base, is ornamented with three grooves on top of the rim and a narrow lip on the outside (Fig. 11r).

An end piece found in the same ruin (Fig. 11s) is from a vessel at least 11 inches wide. It has the same tapering side as the preceding vessels, two grooves on top of the rim, and two

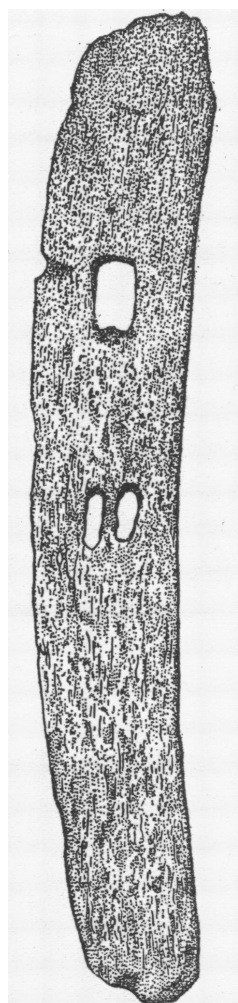


FIG. 32. Mattock blade from Type IIa house, Karmakulluk.

on the outside. The two suspension holes at each corner were drilled from the top to the outside of the piece. In the center is a slight hollow for a finger grip.

Parts of a fourth pot were found. This was about 10 inches long by 7 inches wide by 4 inches deep. It has slightly overhanging sides and two suspension holes drilled at each corner, from the top of the rim to the inner surface. Along the top of the rim a single groove ends at the suspension holes, while a narrow rounded lip is carved around the corner (Fig. 11t).

SNOWKNIVES: Two knife handles and the tip of a blade found in House 7 are of very poorly preserved whalebone. The maximum width of the blade fragment is 2 inches. It has consider-

able curve in outline. There appear to have been two shoulders and two knobs.

TYPE IIb HOUSE (No. 4)

SLATE SKIN SCRAPER: In outline a slate skin scraper (Fig. 33) resembles the sandstone scraper used recently in the central Arctic. It is roughly chipped and has a bend at the upper end of the handle. The side edges are slightly smoothed or worn. The working edge, $2\frac{1}{4}$ inches wide, shows considerable wear and rather coarse scratches. It has been used by a left-handed person.

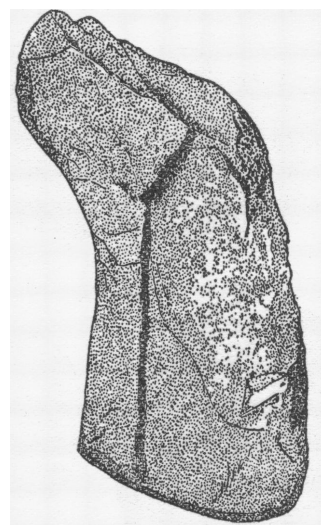


FIG. 33. Slate skin scraper from Type IIb house, Karmakulluk.

WHETSTONES: House 4 yielded two whetstones, one a naturally shaped, thin, flat piece of slate showing use on one side; the other, the typical four-sided form made of sandstone, but showing wear only on three faces.

SLEDGE SHOES: Both fragments of sledge shoes from House 4 show peg fastening. The single unbroken piece is $1\frac{1}{8}$ inches wide.

COOKING POTS: Several fragments from one vessel (Fig. 11u, v) indicate that it was truly oval in outline like the pot from the interior of House 3 at Avertok (p. 146). It was at least 12 inches long by 8 inches wide by 5 inches deep. From top to bottom the sides are well rounded and thickest at the undecorated rim. At the end, $1\frac{1}{2}$ inches below the rim, is a lug type handle, $2\frac{1}{2}$ inches long, $\frac{3}{4}$ of an inch wide, and

projecting outward $\frac{1}{4}$ of an inch. This is the only lug handle observed in the Hopedale area.

From the same ruin is a side piece from a repaired pot with sloping walls, two grooves along the top of the rim, and a narrow round lip on the outer surface. Apparently when the repairs were made, two suspension holes were drilled from the top of the rim to the inner surface, but it is impossible to determine now whether this was the original method of attaching a suspension thong.

COOKING LAMP: The single corner piece of a lamp found is not large enough to show whether or not it had an inner ridge.

ILLUMINATING LAMP: A small, heavy, roughly rectangular and very poorly preserved illuminating lamp or vessel (60.1-6939) was found at the bottom of the meat pit of House 4b. Outside, it is $4\frac{1}{2}$ inches long by $3\frac{1}{2}$ inches wide by $2\frac{1}{2}$ inches high. Inside is an oval hollow $3\frac{1}{2}$ inches long by $2\frac{1}{2}$ inches wide by $1\frac{1}{2}$ (?) inches deep. The sides are steep. Since it has no place for a wick there is considerable doubt as to its original purpose.

IRON: The outstanding feature of the collection is the presence of some iron in every house. With the exception of House 4, just enough iron was found to establish the fact that the occupants of the other houses had possessed it. The only example from House 1 was a single nail found in a crevice in the floor paving stones. Three nails in House 3 were similarly situated in floor cracks; the two larger spikes from the same house occurring in dirt above the floor level were perhaps left there long after the house had been abandoned. In House 5 a single nail lay beneath a paving stone in the entrance tunnel. A nail had been similarly cached under an entrance paving stone in House 2, but, in addition, a small section of nail lay on the surface of the floor stones. Again, in House 7 a flat piece of iron had been hidden under a paving stone of the floor. In the occupational debris of the same ruin was a thin piece of iron which may have been a knife blade. The very small quantity of iron in both Houses 6 and 8 was located in dirt accumulated during the period of occupation.

In House 4 the various pieces of iron were

scattered over and among the floor stones, with no indication that any of them had been intentionally hidden. Among them was only one tool, a section of saw fastened to a bone handle by a single iron rivet. This is the only object in the whole settlement that must be accepted as proof of at least indirect contact with Europeans. The even, regular teeth, eight to 1 inch, seem to have been cut with a file, suggesting either that the saw blade had been secured from Europeans or that some natives at this time had had sufficient contact to secure files and understood their use.

ANIMAL REMAINS: Only two ruins contained animal bones. These were so rotted as to make exact identification impossible. In House 2, 12 bones represented seal and dog or wolf. House 4 contained 10 seal bones. No bones were found in front of any of the houses; the only other evidence of food supply was some periostracum of mussels, the limey portion of the shells having been completely dissolved by the soil acids.

SOIL: In front of and between the houses the soil consisted of 4 to 5 inches of soft dark humus resting on clean sand or gravel. Inside the ruins the humus layer was generally thicker, at the center of House 3 amounting to 8 inches, and in House 4, to 7 inches of leaf mold, rotted moss, and spruce needles. In other ruins that were more filled up, the soil contained a considerable quantity of sand from the collapse of the outer walls, suggesting that most of the humus has formed since this site was first settled. An examination of the house walls supports this idea, as the turf of which they were made is largely sand, containing very little vegetable mold. Such sandy turf could have been used only if it contained enough fine roots to bind it. All this may mean that when the houses were built, the ground cover consisted mainly of grass and that the spruce growth post-dated the final abandonment of the settlement.

REMAINS OF WOOD: Lower portions of posts were found in all except House 3. Some were fairly well preserved, but as the largest available trees in the vicinity were actually growing inside the ruins, no overlap of growth rings was possible.

CONCLUSIONS

A summary of the knowledge derived from the excavations of Karmakulluk tends to sup-

port local legend. True, nothing as specific as a round-bottomed bottle was found, but the lack

TABLE 2
DISTRIBUTION OF ARTIFACTS
SITE 4

House type House number	Ia 8	Ic 2 5	IIa 1 3 6 7	IIb 4	Total
Iron					
Nails and spikes	1	1 1½	1 5 2 —	10	21½
Flat fragments	—	— —	— — 1 2	4	7
Saw	—	— —	— — — —	1	1
Slate					
Arrow or harpoon blades	1	— —	— — — 1	—	2
Whaling harpoon blades	1	— —	— — — 1	—	2
Chips and fragments	8	1 2	— 1 3 12	3	30
Rough blanks	2	— —	— — — 3	—	5
Quartz flakes	—	— 2	— — — —	1	3
Whetstones					
Four-sided, sandstone	—	— —	— — — —	1	1
Flat, irregular form	—	— 1?	— 1 — 1	1	4
Oblong shape, used both faces	—	— 2	— — — —	—	2
Pot fragments					
Sloping sides; suspension holes, top out	—	1 —	— 3 — —	1	5
Overhanging sides; holes, top in	—	1 —	— 1 — —	—	2
Indeterminate fragments	—	— —	— — 1 1	7	9
Small dishes or pots	—	— —	— — — —	1	1
Toys	—	— 1	— — — —	—	1
Lamps					
With inner ridge	1	— —	— — — —	—	1
Indeterminate fragments	—	— 1	— — — —	2	3
Unfinished	—	1 —	— — — —	—	1
Whaling harpoon head	*	— —	— 1 — *	—	1
Sledge shoes, peg fastening	—	— —	— — — —	2	2
Slate scraper	—	— —	— — — —	1	1
Mattock blade	—	— —	— — 1 —	—	1
Whalebone snowknife	—	— —	— — — 3	—	3
Slate bead	1	— —	— — — —	—	1

* See slate; whaling harpoon blades.

of proof of direct white contact indicates that this settlement was probably abandoned some time prior to the attempt to establish a mission in 1752. Despite the absence of whale bones, the presence of whaling gear substantiates the tradition that it was a settlement of whale hunters.

The few differences in the contents of the houses, in agreement with their varied states of preservation, indicate that one ruin, House 4, was the last occupied, and that this occupation occurred some time after the other houses had been abandoned. As the stones used in paving this later house, with one possible exception, were not taken from the older ruins, the older houses were probably in such bad preservation

that it was easier to bring in new stones than to take them from the old floors. Were these ruins the source of the name, "place of old low house walls," seemingly in use during the last occupation when House 4 was built and used by Heinrich's family?

A check of the stone artifacts, other than whetstones, pot and lamp fragments, in contrast with the distribution of iron, is inconclusive. Chipped or flaked objects are limited to the slate blanks, though three small unworked quartz chips were found. One of these quartz chips was in the house where most of the iron was found. As they may have come from the turf walls or the dirt of the sleeping plat-

forms, they have little significance. If we include the unworked, unused slate chips with the finished and partly completed slate objects, House 7 contained the largest number of stone pieces. But, as the small, single platform house (House 8) must have had fewer occupants, the greatest use of slate per person is indicated here.

The remaining specimens are insufficient to suggest any cultural changes. A discussion of any possible connection between house types and cultural change must be postponed until all the sites have been described.

The only possible clue to the dating of the relatively earlier ruins lies in the variations in house types which suggest successive occupations, but no other data support this assumption. Also it is clear that no long interval of time is indicated, that all the ruins belong to a period during which iron was available, yet not so common but that extra pieces were carefully hidden, and still not so rare but that at least three caches were forgotten. It is also obvious that each of the houses was occupied for only a short period.

IGLOSOATALIGARSUK, SITE 5

ABOUT 9 MILES "up the bay" from Hopedale, in a small harbor on the north side of Iglosoataligarsuk Island ("place of old houses") are two groups of house ruins from which the island receives its name (Fig. 34). Both groups lie on sandy soil just back of the beach, at elevations between 3 and 12 feet above high-water mark. At low water, a broad stony bar is exposed across the harbor in front of the southern group of ruins.

The northern group consists of two large roughly rectangular ruins with distinct wall ridges and the remains of three smaller square houses in a much better state of preservation. Two of these latter houses are known to have been in use about 40 years ago. All three lack the usual entrance tunnels, and each has had a narrow timber sleeping platform built across the full width of the rear wall. The floors were not stone paved and seem to have been at about the level of the surrounding ground surface. It is said that one of the men who lived here moved north with his family to Killinek but became discouraged and returned after "a star fell and came down like rain all around him."

The second group, composed of seven ruins, is hidden and overgrown by spruce trees. All the ruins are approximately the same size and shape, but differ in degree of preservation. Only three were excavated.

TYPE IIA HOUSE (No. 1)

The first of these, House 1, was the most nearly obliterated. In its interior was a stump cut at least 25 years ago. In one portion about 75 growth rings were still identifiable and about 20 more had rotted away. Thus we may assume a possible interval of 120 years since the house was abandoned.

After it had been cleared, it was apparent that the plan of both house and tunnel had been adapted to the outcrops of bed rock encountered by the builders. Like Houses 1, 3, and 6 at Site 4, it is Type IIA. The two bed platforms at the sides of the paved floor have a narrow extension connecting them at the same level along the rear wall. The floor paving stones are thicker and more rounded than at the other sites, as more suitable material was

not available here. Near the center of the rear edge of the floor is an irregular meat pit, roughly 2 feet long by 1 foot wide, its bottom about 10 inches below the floor surface. At the rear end of the front edge of one platform is a small recess walled with upright stones and a paved bottom a few inches below floor level. The rest of the platform edges, except the portion across the rear of the house, lack retaining or edging stones. Timbers or logs may have been used instead of stones, for without something of the sort, the sand and gravel platforms would have broken down along their outer edges. The house walls were entirely of sandy turf.

The list of artifacts is scanty, as usual:

One small illuminating lamp made from a flat waterworn soapstone pebble has a hollow 4 inches long, $2\frac{3}{4}$ inches wide by $\frac{3}{4}$ inch deep cut in one side.

Ten small steatite pot fragments form a section of what may have been an oval-shaped pot, $4\frac{1}{2}$ inches deep, with a rounded lip carved along the outer edge of the rim.

Two flat irregularly shaped whetstones have been used on one side only.

Two iron nails; one was found beneath a paving stone in the entrance tunnel, the other on the floor. Two others from the loose dirt in the house interior may have been lost long after the occupation.

TYPE IIA HOUSE (No. 2)

Like the one just described, this second ruin (Fig. 4d) was hidden by spruce trees and brush; its wall ridges were barely traceable. In the interior were two stumps cut within recent years, one about 67 years old, the other less. A third stump, 9 inches in diameter, had nearly rotted away. In type, it proved to be the same as House 1, measuring 24 feet between the side walls and 14 feet between the front and rear walls. The entrance tunnel was 10 feet long. The walls seem to have been entirely of sandy turf. Both platforms are of sand and gravel, 6 and 9 inches high. The front edge of the western platform was faced with flat vertical stones; the other was only partially faced, but had two recesses cut into the edge. One of these recesses was 18 inches across the front and curved back 9 inches into the platform; the other was 22 inches wide and 12 inches behind the platform edge. In the center of the rear of the floor was an unlined meat pit, roughly 20 inches in diameter

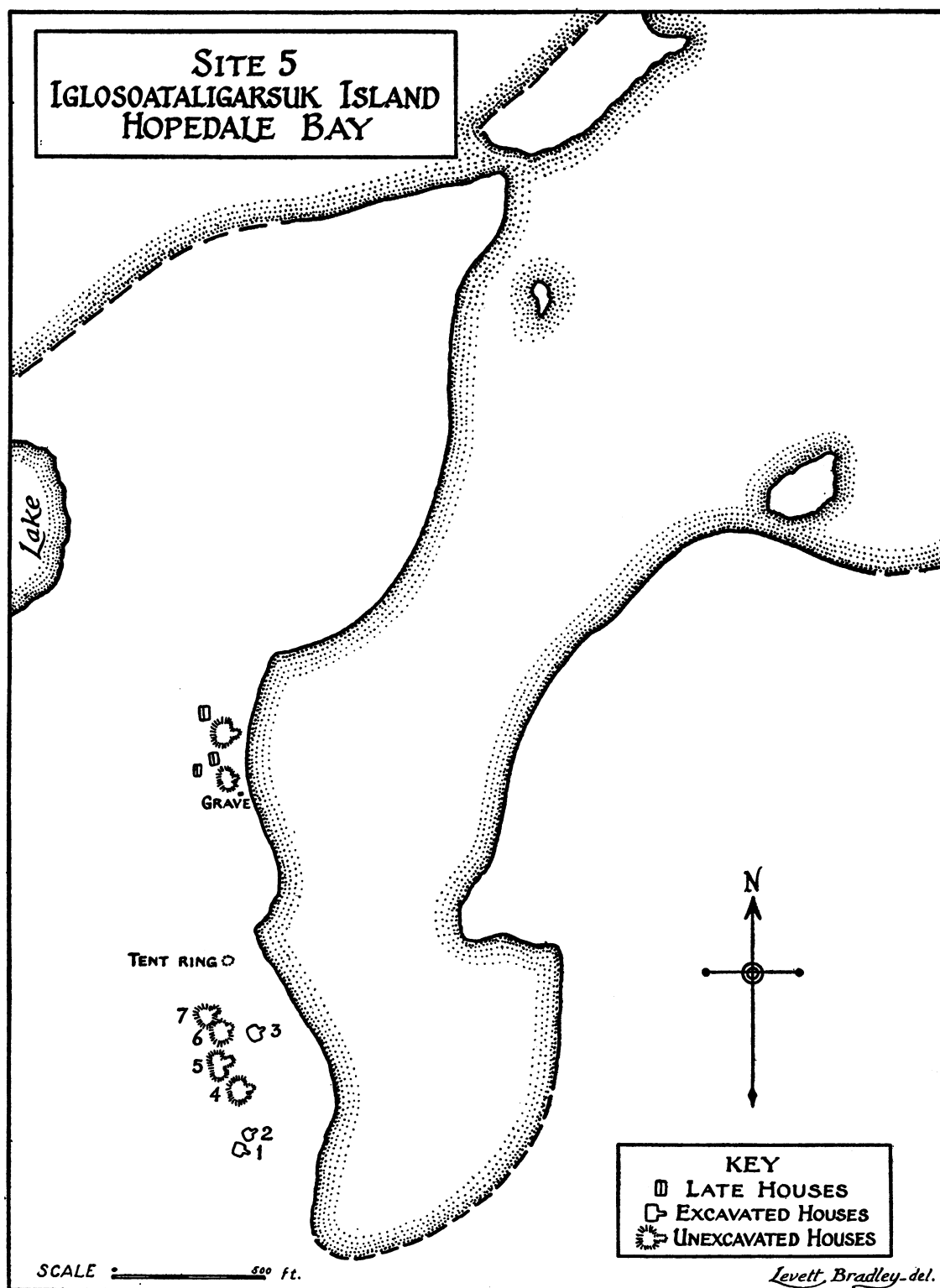


FIG. 34. Sketch map of Site 5, Iglosoataligarsuk.

and 18 inches deep, covered with a large flat stone. This cover was 8 inches above the floor paving. Other stones were loosely laid on either side of it, flush with its top. Behind them the sand had been left in place, forming a narrow connection between the two sleeping platforms. On the floor, at each side of the inner end of the tunnel, stones had been loosely piled to make two small raised places 8 and 12 inches high. The location of at least two lamps was shown by the oil-soaked places which are marked on the plan.

Three fragments of a steatite pot were found. The rim was ornamented with a single groove along the top and a slight lip carved along the outer edge. Suspension holes passed from the top of the rim to the outside of the pot.

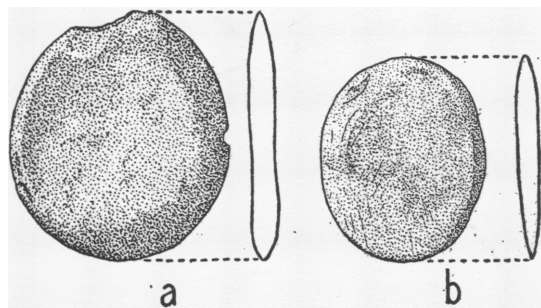


FIG. 35. Slate float plugs, Iglosoataligarsuk.

One small triangular fragment of steatite had perhaps been a pot patch.

Two slate oval disc float plugs (Fig. 35) had blunt edges and are like that from Avertok (Fig. 12f). One measures $1\frac{1}{4}$ by $1\frac{1}{2}$ inches by $\frac{7}{16}$ inch thick; the other $1\frac{3}{8}$ by $1\frac{1}{8}$ by $\frac{1}{8}$ inch.

Two slate flakes were unworked.

One fragment of a three-sided tenon made of whalebone was perhaps part of a harpoon ice pick. All three faces are roughly scarfed.

One nail and one flat piece of iron were found on the floor. Two other nails were in the sod taken from the interior, probably dating from the occupation of this house.

TYPE III HOUSE (No. 3)

From the state of preservation of the sod walls of this ruin, it might be concluded that it was the last of this group to have been occupied. In condition, size, and form, it appeared to be contemporary with the two older ruins of the

northern group on this island. Although not so large nor quite the same shape as House 1 at Sites 1 and 3, it resembles them in having sleeping platforms around three sides of the irregularly shaped paved floor, with narrow extensions built up of stones on either side of the entrance. In all three houses excavated on this island an unusual number of large loose stones was scattered on the floor paving without any apparent order or reason. Also at the outer end of the entrance was a single step beyond which the tunnel paving continued at a slightly higher level.

One side or end of a steatite pot, 8 inches long, had a plain rim and suspension holes passing from the top to the inside. After the pot was broken this piece was used as a lamp. Fragments of three other pots were also found.

One unfinished toy lamp bore no trace of an inner ridge.

A corner of a large cooking lamp was reworked into an illuminating lamp.

Of four sections of whalebone sledge shoes with peg fastenings, one was $2\frac{1}{8}$ inches wide, another $1\frac{3}{8}$ inches, the others of uncertain width.

A variety of iron nails and pieces of iron, including a large heavy iron washer, a section of perforated strap iron with a spike which may have been the lower end of a chain plate from a ship, and pieces of bolts or rods were found. All of this iron might have come from wreckage. However, nothing to prove direct white contact was found.

None of the houses in either group had midden refuse in front of them. As at Site 4, the quantity of humus outside the two-platform houses was about the same as that over the floor paving, suggesting that here also the spruce growth had developed after the first settlement.

GRAVES

In all, four vaulted cairn graves were found on the island. The bodies apparently had been extended at full length. The first cairn had been built against a boulder near the beach at the southern side of the northern group of ruins, but had been disturbed and had lain in the position found long enough for the lichens to grow over the exposed surfaces. The bones were fragmentary and badly decayed. No grave goods were left.

In a second grave found on the outer point at

the east side of the harbor the skeletal remains were even more poorly preserved. The grave cache had been opened previously, but the objects taken from it were later secured for this

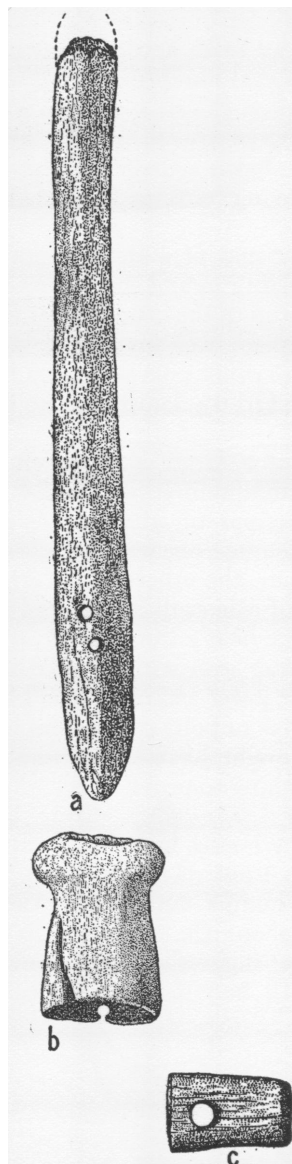


FIG. 36. Lance forepiece, socket, and thumb rest, Iglosoataligarsuk.

Museum. In addition to these a number of small items were found, the complete list comprising:

One whalebone lance foreshaft, 12½ inches long, four-sided in section, with two thong holes drilled in slightly different directions (Fig. 36a)

One whalebone foreshaft socket hollowed to fit over a shaft tenon (Fig. 36b)

One ivory lance thumb rest with single lashing hole (Fig. 36c)

One fragment of a brass headband, like the more complete example illustrated in Fig. 39i

Twenty-seven flat lead pendants (Fig. 37a)

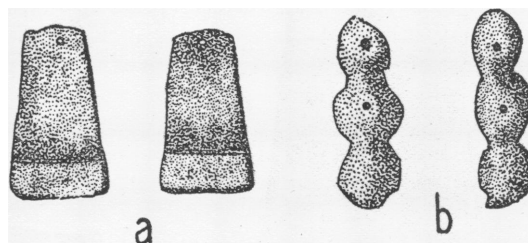


FIG. 37. Lead pendants, Iglosoataligarsuk.

Seventy-five roughly cast lead pendants shaped as though three drops of the molten metal had fallen side by side on a flat surface and fused together (Fig. 37b)

Various glass beads, and with them a short section of pipestem

One small copper coin dated 1643, identified as a French "double tournois"

One lump of pyrites

On the eastern side of the island two poorly preserved graves were found; one of them contained fragments of two skulls. Nothing remained in the caches except a piece of an iron knife blade. The end section of an unusually large pot shown in Fig. 38 had previously been

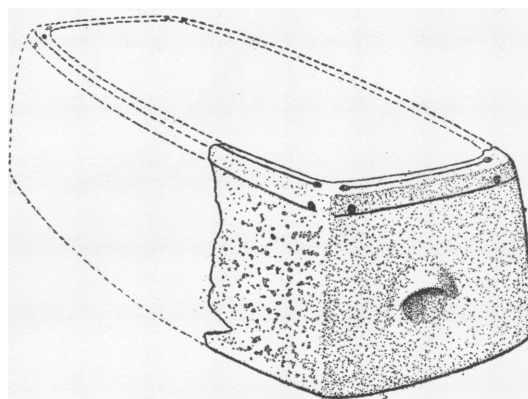


FIG. 38. Large pot section, Iglosoataligarsuk.

removed from this cache. It had been carefully made, the thick flat-topped rim ornamented with a single groove, a slight lip carved on the

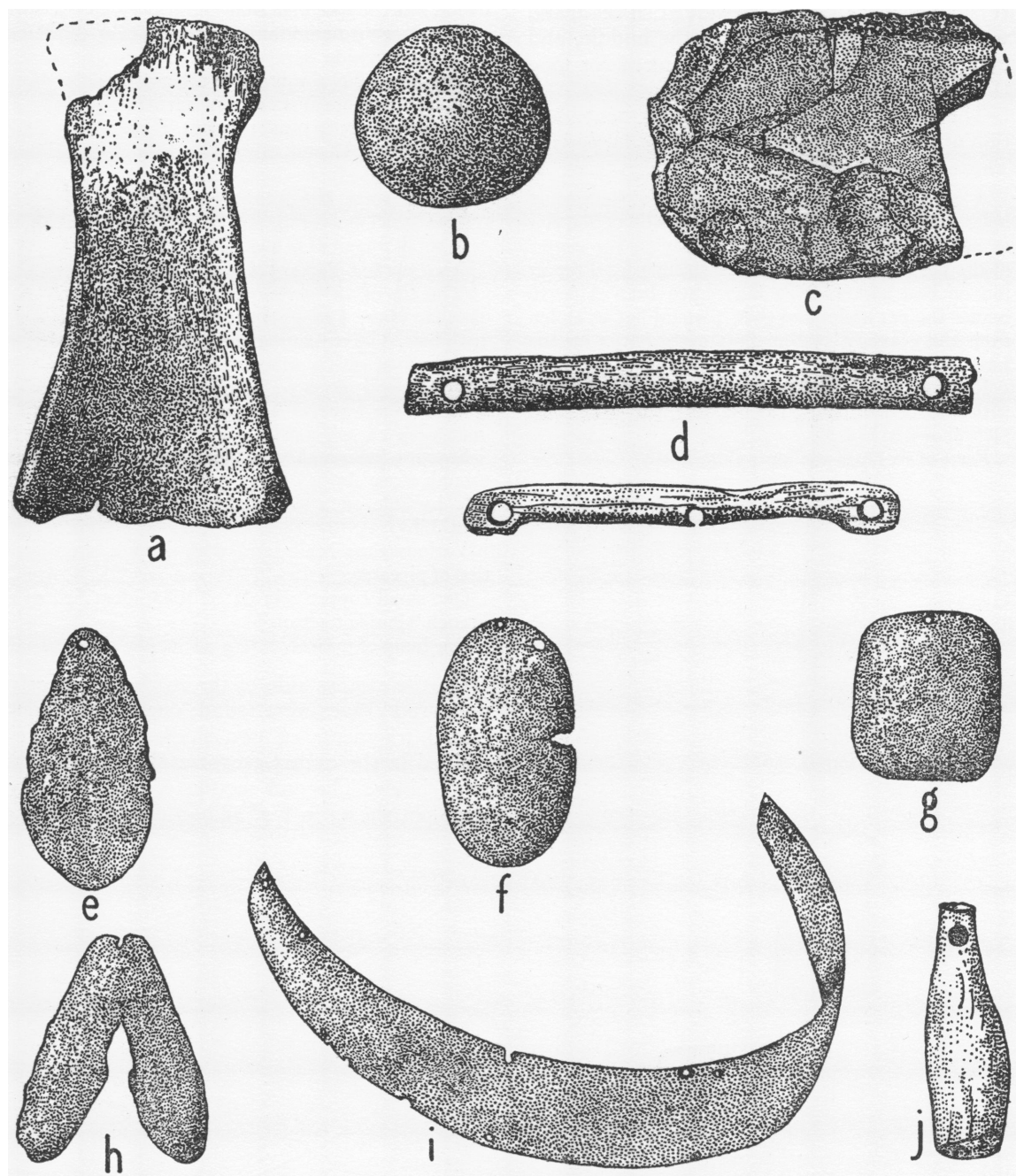


FIG. 39. Artifacts from grave on Iglosoataligarsuk Island.

outer surface, and a good finger grip at the end. It is 8 inches high, 9 inches wide at the end, and was at least 12 inches wide at the middle, and may have been between 16 and 20 inches long (Fig. 38).

The contents of another grave, without location or other data, were purchased at Hopedale. These included the following:

A small soapstone dish had single suspension holes drilled from the top to the outside of the rim at each corner. A hole drilled nearly in the center of the pot has no relation to the drilling for a repair job on one corner. This may have been done to render the pot useless, so that it would not be stolen from the grave, a custom previously noted on the Labrador.

Parts of three or four narrow brass headbands with holes drilled along the margins, the most complete shown in Fig. 39i.

Parts of six brass pendants (Fig. 39e-h)

Forepiece socket of whalebone, for harpoon or lance, like the specimen from the grave just described

A well-worn round lump of pyrites (Fig. 39b)

A quartz side scraper from the Stone culture period (Fig. 39c) for use with the pyrites

A caribou scapula skin-dressing tool (Fig. 39a)

Two short bone quiver or box handles (Fig. 39d) with holes at the end, one with a hole in the middle, 3½ inches and 3 inches long, respectively

Six seal teeth, one perforated (Fig. 39j)

One small beaver incisor, with no trace of working

A small fragment of a wooden dish

Two worked pieces of ivory of uncertain use

The tip of an ivory needle case, apparently the tubular form, ¾ of an inch in diameter, with a ⅛ inch hole. The remaining portion of the outer surface is decorated with a number of small drill marks.

With these items was a small iron harpoon point with a closed socket and a ⅜ inch diameter line hole with an original length of over 2 inches. It is too poorly preserved to be certain of other details.

ABSENCE OF ESKIMO REMAINS IN THE VICINITY OF HAWKE HARBOR

FOUR DAYS WERE SPENT looking for evidence of Eskimo occupation near Hawke Harbor, 60 miles north of the Strait of Belle Isle (about latitude 53° north). The map (Fig. 40) shows the route followed south around Stony Island, back into Hawke Bay, north through Deer

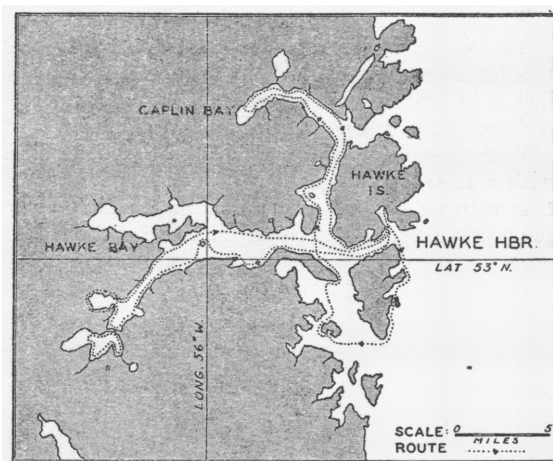


FIG. 40. Map of the vicinity of Hawke Harbor showing the route followed.

Pass, and into Caplin Bay. About 70 miles of shore line were examined without finding a single trace of any typical Eskimo structure—neither house ruins, tent rings, graves, cairns, nor meat caches.

A number of places suitable for both winter and summer camps were observed. Some of

these would certainly have been utilized had there been a considerable Eskimo population. At the head of the south arm of Hawke Bay is a large tidal lake. The narrow passage, only a few feet wide, leading into it is a very excellent place to hunt and net the seals which are plentiful there. Moreover, when the tide is running, only a motor boat can pass through against it. Hunters with kayaks and umiaks would have had to wait for slack water, yet there is no indication that the adjacent camping places were ever used. Anywhere else in Eskimo territory this kind of situation would bear evidence of occasional, if not repeated or continuous, occupation. We can only conclude that Hawke Harbor and the adjacent region never had a numerous Eskimo population.

This seems also to be true of most of the coast south of Hamilton Inlet, judging from reports of men who know parts of it intimately. Various members of Captain Bartlett's crews who have fished from shore stations along here and are also familiar with house ruins and other remains in various parts of the Arctic agree on their rarity on this part of the coast. Mr. Charles Hiscock of Brigus, who has had a station at Smoky for 30 years, says he has seen only two house ruins in that time. One of these, "large and square," is at Smoky, and a similar one "at the back of" Comfort Bight, north of Caplin Bay. He estimated them to be about 40 feet across inside the walls, in which case they must be very much like the large communal houses at Hopedale.

SUMMARY

IT APPEARS THAT THE ANCESTORS of the present Labrador Eskimo have occupied the lower half of the east coast only a relatively short time, probably not over 400 years, in the Hopedale section. This conclusion is based on the presence of iron articles of European manufacture in the oldest ruins observed; the scantiness of midden refuse, except around houses dating from the last quarter of the eighteenth century; and on the increasing scarcity of evidence of their occupation along the coast to the south. It is also supported by the uniformity of cultural remains, scarce as they are. Very few changes have occurred since the oldest occupation; the most conspicuous is the alteration of house plans and, among specific artifacts, the disappearance of the interior ridge from the lamps and the late use of some steatite cooking pots with overhanging sides. We have not been able to define any strictly local features or styles, apart from Type II and III houses. As a specific characteristic for comparative work, the decorative incised lines on pot rims may have some significance, for they are far more common here than has been reported elsewhere in the eastern Arctic. Of similar possible value is the pattern of the snowknife handle with the knob at the end bulging out from either side of the grip, a slight variation from the normal Thule culture pattern.¹

Obviously most of the accumulation of humus at these sites has occurred since the arrival of the Eskimo. The turf used in the walls of the older dwellings was very sandy and soon disintegrated. At Sites 4 and 5 the forest growth post-dated the abandonment of these settlements. As most of the ruins are only a relatively few feet above the present sea level and as the coast line is still rising, this has little significance, but should be recorded.

The changes that have occurred in the groundplans and size of the houses may have resulted from the availability of better roofing timbers. Small, rounded, single-family huts were succeeded by larger square or rectangular two-family houses and these, in turn, by even larger multiple-family dwellings in the latter half of

the eighteenth century when white contacts frequently were dangerous and perhaps provided a motive for banding more closely together. This sequence of structures parallels the situation in west and east Greenland² to some extent, but there is, as yet, no proof that the communal houses of Labrador and Greenland are related.

Unique in the eastern Arctic are the nearly square houses with two bed platforms along opposite sides of the floor. Although these appear to have been built after the smaller rounded single platform houses and may mark the presence of a separate group of settlers, they have yielded nothing to differentiate them culturally from the earlier or later Eskimo inhabitants of this section.

Culturally the Eskimo of the Hopedale area cannot yet be traced to any specific portion of the adjacent regions. Various Thule culture elements and derivative forms are present, but it seems useless to attempt to enumerate them when such artifacts as have survived under the adverse conditions existing here are only a fraction of the total number of items which must have been in use.

The occurrence of such objects as the discoidal wooden plugs for sealskin floats, their slate counterparts, the whetstone with notched finger grips, and the narwhal jaw scraper suggest some connection with the people of the upper east Greenland coast as well as with the inhabitants along the Baffin Island side of Hudson Strait and those in the Hudson Bay area. Explanation of this relationship is impossible at this time, but might be established by work in various parts of Baffin Island.

It could be argued that the drift iron in the oldest ruins might have arrived here much more than 400 years ago. The argument against this is that the very similar ruins (Type Ib) which are found in the same state of preservation also have such items as clay pipestems; if the drift iron in the Type Ia houses was much older, then these ruins would have to contain evidence of occupation for a long period of time.

The present work provides no new information on the Labrador "stone culture" other than that it is older than, and seemingly distinct

¹ The only other known example of the double knob on the snowknife handle is illustrated by Jenness, 1941, Pl. 17, from the Belcher Islands.

² Larsen, 1934, 54-63; Mathiassen, 1933, 103, 104.

from, the material directly ancestral to the modern Labrador Eskimo. Since Strong¹ concluded that this represented an Indian occupation, reversing his earlier opinion that it marked an older branch of Eskimo culture, additional evidence has been presented making it advisable to review this question. Perhaps most directly pertinent are the Jenness and Wintemberg collections from northern Newfoundland² which contain artifacts demonstrating the presence there of a phase of the Dorset Eskimo culture. Strong's primary basis for ascribing an Indian origin to his material was the presence of a stone gouge, large celts or adze blades, and the forms of the chipped stone blades. The most conclusive of these is the gouge, so far unknown in all stages of Eskimo culture. Wintemberg³ mentions their presence at a site in Newfoundland yielding Dorset culture material, so Strong's specimen from Windy Tickle, to the north of Hopedale, might have no more significance than the Algonkin potsherd found by us at Hopedale.

The large celts or adze blades⁴ are similar to those found in Newfoundland. Wintemberg remarks on the rarity of large adze blades among Eskimo remains and is inclined to credit them with an Indian origin. In spite of the few examples reported in the eastern Arctic, it should be noted that they have been found in West Greenland in a district yielding other stone artifacts duplicated only by Cape Dorset culture types.⁵

The smaller socketed adze blades offer another parallel occurring, as they do, with the larger forms in the Strong, Solberg, and Wintemberg collections.

Among the chipped stone projectile and knife points collected by Strong is a side-notched stemmed form with rounded base.⁶ This form of stem is not common in the Dorset culture, but does occur.⁷ With the exception of some

questionable specimens,⁸ all the other points illustrated by Strong, as well as our specimens from Hopedale (Fig. 22) are duplicated in Dorset culture collections, the triangular form with concave base being a consistent feature.

Another parallel between the Labrador stone culture artifacts and the Cape Dorset stone-work may be found in the small hafted side or side-and-end scrapers. These are generally made from elongated flakes with one side flat and with secondary chipping confined to the opposite face.⁹ I found two of these in Eclipse Harbor and at least six in the Mill Island ruin. These seem a specific trait of the Cape Dorset culture and are not found in adjacent areas occupied only by Indians.

Thus, in the light of more complete data, it appears that the Labrador stone culture, manifested by widely scattered chipped and ground stone artifacts, should be attributed to the Cape Dorset Eskimo culture. This naturally raises the question as to the location of the earlier Cape Dorset houses in the Hopedale area. As later ruins dating, at the earliest, from the latter part of the sixteenth century are sometime completely obliterated, considerably older ones, unless walled with stone, would be in a similar condition. It was easily demonstrated that the lack of visible traces was no real handicap to the location of paved floors, so we are led to two possible conclusions. Either the occupation of the Hopedale area was very limited or the use of paved floors, as in the Mill Island ruin, was not a universal practice. This last is supported by the work of both Leechman and Wintemberg and should be borne in mind in the course of future work.

In the light of the information recovered, it may also be well to consider a certain aspect of the Norse visits to this continent. It is generally accepted that the references to the Skraelings are sufficient to identify them as Eskimo. If these were the ancestors of the present Labrador Eskimo, then the Norse could not have been so far south as many suppose. Even if their contacts were with advance exploring Eskimo parties, it seems doubtful that these were so far

¹ Strong, 1930, 126.

² Wintemberg, 1939, 1940.

³ Wintemberg, 1939, 1940, 89, 330.

⁴ Strong, 1930, Pls. 5, 6; Wintemberg, 1939, Pl. 6, Fig. 1.

⁵ Solberg, 1907, Tafel 8. Other examples from Point Hope, Alaska, have been shown me by Dr. Helge Larsen. These are now being described by him, and, as he points out, are among the parallels between the Ipiutak and Cape Dorset cultures.

⁶ Strong, 1930, Pl. 6f-k.

⁷ It is present among the artifacts from a two-room Cape

Dorset culture house ruin which Deric Nusbaum (O'Bryan), David Putnam, and I excavated on Mill Island in 1927.

⁸ Strong, Pl. 4n-u.

⁹ Strong, 1930, Pl. 4b; Wintemberg, 1939, Pl. 6, Fig. 2,23; Leechman, 1943, Pl. 29, B, 6.

south as Hopedale 500 or 600 years before they began to settle in that district. It is almost equally questionable that such a meeting occurred in the restricted portion of the coast between Hopedale and the northern limit of forest growth, i.e., the vicinity of Nain. It seems

much more probable that the Skraelings were Cape Dorset culture Eskimo, and, as their remains have not been found south of the northern portion of Newfoundland, this would appear to be a maximum southern limit for the voyages recorded in the sagas.

SUGGESTIONS FOR FUTURE WORK

ON THE BASIS of our observations it may seem presumptuous to offer suggestions for future investigations, particularly in an area as large as eastern Labrador. When, however, one has had an opportunity to see what any given area has to offer, it is only natural to plan for future work. Personally, I believe that attention should be directed to an examination of the coast north of Cape Mugford. There the terrain, great fiords with almost no offshore islands, simplifies our problem. Camping places are few and definitely limited to easily located situations. The growth of the soil is slower, its acidity is less, and with the lower average temperatures a wider variety of objects should have been preserved. In addition, accurate maps and a superb series of aerial photographs are available at the American Geographical Society. The principal drawback is the difficulty of securing

transportation. Preferably any expedition working in that region should have a suitable vessel available the entire season. If this cannot be arranged the alternative would be for a small party to ship a boat north on one of the Hudson Bay supply steamers, then work back south to Hebron during the summer and fall.

South of Hopedale the most promising district may well be in the vicinity of Hamilton Inlet. This is reputed to have been a popular place with the Eskimo because of the abundance of game. However, no information about ruins is available. It is probable that such ruins as will be found will be well scattered because of the frequency of available camping places. Its only advantage over the northern section is in the matter of transportation and expense, as there is a regular service from St. Johns, Newfoundland.

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EXPLANATION OF ILLUSTRATIONS

PLATES

9. Aerial views of Hopedale
 - View of Hopedale from the west. The old settlement of Avertok lies on the farther side of the point. (Upper view)
 - View of Hopedale from the south. Site 1, outlined with dashes; other site locations indicated. (Lower view)
 - Photographs by Dr. Alexander Forbes, courtesy of the American Geographical Society
10. Large Type III house ruin and section of midden deposit lying in front of it, Hopedale
 - Type III house ruin. Broken line indicates crest of wall ridges enclosing an area 38 by 20 feet. (Upper view)
 - Section of midden deposit lying in front of ruin shown in Pl. 10. This is the maximum concentration of refuse in the Hopedale area and consists entirely of post-white contact material. (Lower view)
11. Panoramas of sites at Napatalik and Karmakulluk
 - Site 3, Napatalik Island, seen from the northeast. (Upper view)
 - Site 4, Karmakulluk Cove seen from the west. The ruins are concentrated in the right portion of the wooded area. (Lower view)
12. House ruin No. 6 (Type II) at Karmakulluk
 - Showing floor paving as uncovered, with paved entrance tunnel in lower right corner. Bed platforms on each side of floor paving

TEXT FIGURES

1. Map of the Hopedale area, Labrador
 - Taken from Imray, Lauri, Norie, and Wilson hydrographic chart
2. Plane table survey of Avertok, Site 1
3. House Types Ia, b, c
 - a. House Type Ia, House 8, Site 1
 - b. House Type Ia, House 7, Site 1
 - c. House Type Ia, House 8, Site 4
 - d. House Type Ia, House 2, Site 1
 - e. House Type Ib, House 9, Site 1
 - f. House Type Ib, House 4, Site 1
 - g. House Type Ib, House 6, Site 1
 - h. House Type Ib, House 5, Site 1
 - i. House Type Ic, House 5, Site 4
 - j. House Type Ic, House 2, Site 4
4. House Types IIa, b, and III
 - a. House Type IIa, House 1, Site 4
 - b. House Type IIa, House 3, Site 4
 - c. House Type IIa, House 6, Site 4
 - d. House Type IIa, House 2, Site 5
 - e. House Type IIb, Houses 4a, b, Site 4
 - f. House Type III, House 1, Site 1
 - g. House Type III, House 1, Site 3
5. Fish line sinker and quartz blank, Avertok
 - a. Site 1, House 7 (60.1-6798; length, 3½ in.)
 - b. Site 1, House 8a (60.1-6814; length, 2 in.)
6. Whalebone wedge, Avertok
 - Site 1, House 2 (60.1-6704; length, 5 in.)
7. Types of whetstones, Avertok
 - a. Site 1, House 8a or b (60.1-6808; length, 2½ in.)
 - b. Site 1, House 8a (60.1-6809)
 - c. Site 1, House 8a (60.1-6806; length, 4½ in.)
8. Harpoon heads, Avertok
 - a. Site 1, House 3 (60.1-6754; length, 3½ in.)
 - b. Site 1, House 3 (60.1-6760; length, 7 in.)
9. Whalebone dart foreshaft and other whalebone objects of uncertain use, Avertok
 - a. Site 1, House 3 (60.1-6751; length, 11 in.)
 - b. Loose lance head?, Site 1, House 3 (60.1-6761; length, 14 in.)
 - c. Object, unknown use, Site 1, House 3 (60.1-6752; length, 9½ in.)
10. Fish line sinkers, Avertok
 - a. Site 1, House 4 (60.1-6767; length, 4½ in.)
 - b. Site 1, House 5 (60.1-6785; length, 2½ in.)
11. Sections of steatite cooking pots and lamps associated with Type I and Type II houses
 - a. Site 1, House 8a (60.1-6800)
 - b. Site 1, House 8a (60.1-6805)
 - c. Site 1, House 8a (60.1-6801)
 - d. Site 1, House 8a (60.1-6803)
 - e. Site 1, House 7 (60.1-6798)
 - f. Site 1, House 7 (60.1-6797)
 - a-f. House Type Ia
 - g. Site 1, House 3 (60.1-6710a)
 - h. Site 1, House 3 (60.1-6710b)
 - i. Site 1, House 3 (60.1-6748)
 - j. Site 1, House 4 (60.1-6764)
 - k. Site 1, House 4 (60.1-6765)
 - l. Site 1, House 4 (60.1-6763)
 - m. Site 1, House 5 (60.1-6777)
 - n. Site 1, House 6 (60.1-6790)
 - o. Site 1, House 6 (60.1-6791)
 - p. Site 1, House 6 (60.1-6788)
 - q. House Type Ic, Site 1, House 2 (60.1-6918)
 - r. Site 4, House 3 (60.1-6919)
 - s. Site 4, House 3 (60.1-6920)
 - t. Site 4, House 3 (60.1-6721)
 - u-v. Side and end sections, Site 4, House 4 (60.1-6929)
 - r-v. House Type II
12. Whetstones and slate objects, Karmakulluk and Avertok
 - a. Whetstone, Site 4, House 5 (60.1-6944; length, 4½ in.)
 - b. Whetstone, Site 4, House 5 (60.1-6946)

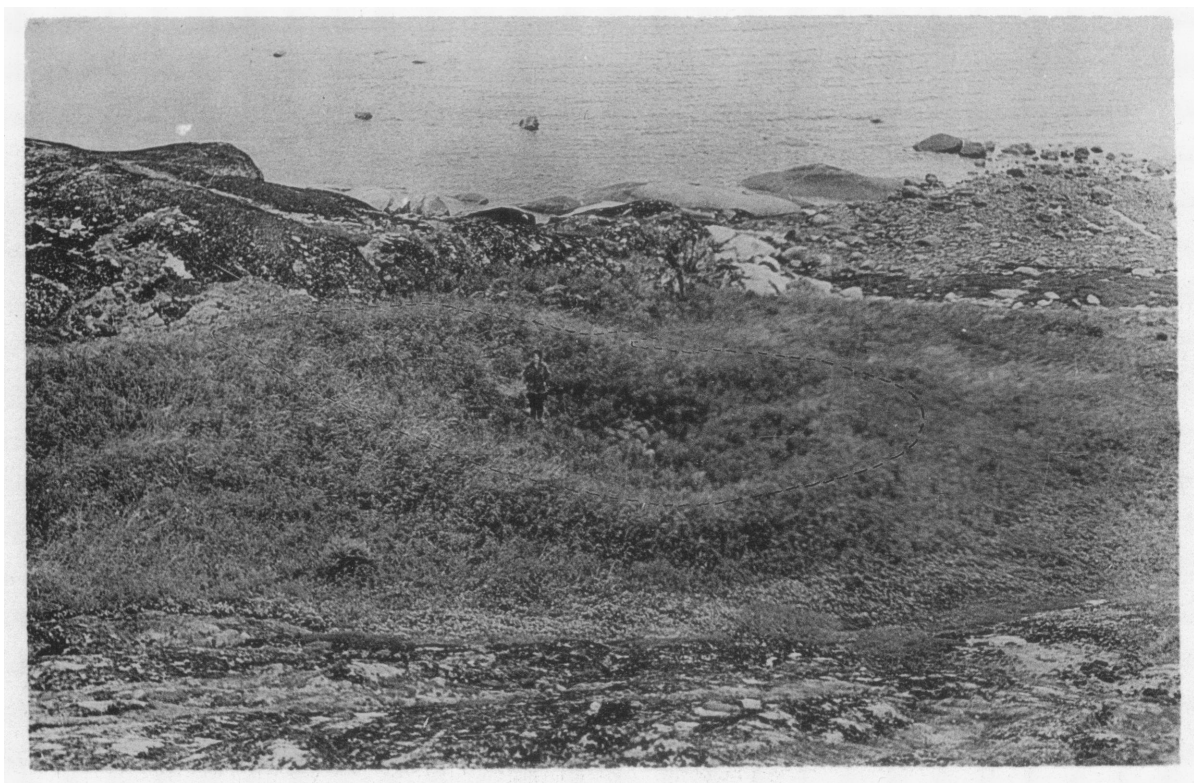
- c. Whetstone, Site 1, House 5 (60.1-6781)
- d. Slate blank, Site 1, House 5 (60.1-6780)
- e. Slate whaling harpoon blade, Site 1, House 6 (60.1-6794)
- f. Slate float plug, Site 1, House 5 (60.1-6782)
- 13. Rim sherd from a vessel decorated by indentation, Avertok Site 1, House 4, tunnel (60.1-6770)
- 14. Fragment of a clay pipestem, Avertok Site 1, House 9 (60.1-6819)
- 15. Artifacts from mixed occupational refuse, Site 1, House 3
 - a. Whalebone harpoon point (60.1-6729; length, 2½ in.)
 - b. Harpoon foreshaft (60.1-6731; length, 5½ in.)
 - c. Whalebone harpoon foreshaft socket (60.1-6733; length, 2½ in.)
 - d. Tip of lance foreshaft (60.1-6732; length, 4½ in.)
 - e. Whalebone ice pick (60.1-6734; length, 8½ in.)
 - f. Skin scraper which served as a boot softener (60.1-6722; length, 3½ in.)
 - g. Skin scraper (60.1-6721; length, 4⅞ in.)
 - h. Whalebone snow beater (60.1-6738; length, 11⅞ in.)
 - i. Harpoon rest, a kayak attachment (60.1-6740; length, 4¼ in.)
 - j. Bone wedge (60.1-6716; length, 4 in.)
 - k. Man's whalebone knife handle (60.1-6723a; length 5⅞ in.)
 - l. Whalebone snowknife handle (60.1-6726; length, 4½ in.)
- 16. Antler fish spear, Avertok Site 1, House 3, floor (60.1-6736; length, 15 in.)
- 17. Lamp, partially restored, Avertok Site 1, House 3 (60.1-6706; length, 8½ in.)
- 18. Artifacts associated with Type III house ruins, Avertok
 - a. Harpoon forepiece of whalebone, Site 1, Midden (60.1-6840; length, 5½ in.)
 - b. Whalebone harpoon head, broken, Site 1, Midden (60.1-6838; length, 4¼ in.)
 - c. Antler harpoon head, Site 1, Midden (60.1-6839; length, 2½ in.)
 - d. Harpoon finger rest of whalebone, in sod of House 1, Site 1 (60.1-6674a; length, 1 in.)
 - e. Ice pick for harpoon of whalebone, Site 1, Midden (60.1-6841; length, 6 in.)
 - f. Wooden float plug, Site 1, Midden (60.1-6865; length, 1¼ in.)
 - g. Wooden gull hook, Site 1, Midden (60.1-6860; length, 3½ in.)
 - h, i. Wooden bow tips, Site 1, Midden (60.1-6859; length of h, 3½ in.)
 - j. Baleen bow tip, Site 1, Midden (60.1-6842; length, 2 in.)
 - k. Whalebone toggle, Site 1, House 1 (60.1-6691; length, 3½ in.)
 - l. Quiver handle, Site 1, Midden (60.1-6848; length, 4¼ in.)
- 19. Artifacts associated with Type III house ruins, Avertok
 - a. Whalebone snowknife, Site 1, Midden (60.1-6829; length, 16 in.)
 - b. Two-piece whalebone snowknife handle, Site 1, Midden (60.1-6830; length, 4½ in.)
 - c. Whalebone snowknife handle, Site 1, Midden (60.1-6831; length, 5 in.)
 - d. Snowknife handle, Site 1, Midden (60.1-6832; length, 3½ in.)
 - e. Toy baleen knife, Site 1, Midden (60.1-6837; length, 9¼ in.)
 - f. Bone bodkin, Site 1, Midden (60.1-6847; length, 7½ in.)
 - g. Whalebone tool, use uncertain, Site 1, Midden (60.1-6849; length, 11 in.)
 - h. Kayak paddle tip, Site 1, Midden (60.1-6845; length, 4¼ in.)
 - i. Kayak paddle tip, Site 1, Midden (60.1-6844; length, 1½ in.)
 - j. Whalebone sledge shoe, with peg and thong fastening, Site 1, Midden (60.1-6852; length, 9 in.)
 - k. Whalebone sledge shoe, with peg fastening, Site 1, House 1 (60.1-6694; length, 10 in.)
 - l. Iron-bladed ulu, Site 1, Midden (60.1-6835; width, 4½ in.)
 - m. Iron blade for ulu, Site 1, Midden (60.1-6836; length, 3 in.)
 - n. Man's knife, Site 1, Midden (60.1-6834; length, 5½ in.)
 - o. Baleen spoon, Site 1, Midden (60.1-6855; length, 6½ in.)
 - p. Bear jaw scraper, Site 1, Midden (60.1-6828; width, 4½ in.)
 - q. Whalebone wedge, Site 1, House 1 (60.1-6692; length 4⅞ in.)
 - r. Wooden tub stave, Site 1, Midden (60.1-6862; length, 7½ in.)
 - s. Dog harness toggle, Site 1, Midden (60.1-6843; length, 2½ in.)
- 20. Soapstone cooking lamp associated with Type III house, Avertok Site 1, House 1, sod (60.1-6674; length, 21¼ in.)
- 21. Illuminating lamps associated with Type III house, Avertok
 - a. Site 1, House 1 (60.1-6675; length, 4½ in.)
 - b. Site 1, Midden (60.1-6824; length, 5¼ in.)
- 22. Chipped stone blades
 - a. Surface find, beach northwest of Hopedale mission (60.1-6822; length, 2½ in.)
 - b. Fragmentary blades, Site 1, House 9 (60.1-6820, 6821a)

23. Wooden float plugs used by the Aivilik of Southampton Island (60-2792ab)
24. Sketch map of Site 2, Anniowaktook Island
25. Artifacts associated with Type III house, Anniowaktook Island
 - a. Toy steatite pot, Site 2, Midden (60.1-6872; length, $3\frac{1}{4}$ in.)
 - b. Toy steatite lamp, Site 2, Midden (60.1-6868a; length, $3\frac{1}{8}$ in.)
 - c. Whalebone knife handle, Site 2, Midden (60.1-6883; length, incomplete, $4\frac{1}{2}$ in.)
 - d. Antler handle, uncertain use, Site 2, Midden (60.1-6884; length, incomplete, $7\frac{1}{8}$ in.)
 - e. Knife made from an iron spike, Site 2, Midden (60.1-6893; length, $6\frac{1}{2}$ in.)
 - f. Narwhal jaw scraper, Site 2, Midden (60.1-6888; length, $4\frac{1}{8}$ in.)
 - g. Toy steatite lamp, Site 2, Midden (60.1-6868b; length, $2\frac{1}{2}$ in.)
 - h. Unfinished harpoon head, Site 2, Midden (60.1-6877; length, 3 in.)
 - i. Wooden sinew twister, Site 2, Midden (60.1-6890; length, $2\frac{1}{2}$ in.)
26. Artifacts from Type III house, Napatalik Island
 - a. Baleen whisk broom (60.1-6914; length, $11\frac{1}{8}$ in.)
 - b. Slate skin softener (60.1-6911; length, 5 in.)
 - c. Sandstone whetstone (60.1-6913; length, $2\frac{1}{2}$ in.)
 - d. Slate whetstone (60.1-6912; length, $2\frac{1}{4}$ in.)
27. Map of Site 4, Karmakulluk, showing location of House Sites 1 to 8
28. Unfinished and finished slate arrowpoints, House Type Ia, Karmakulluk
 - a. Roughly chipped slate blank, Site 4, House 8 (60.1-6970; length, $1\frac{1}{2}$ in.)
 - b. Slate arrow blade, Site 4, House 8 (60.1-6973; length, $1\frac{1}{2}$ in.)
29. Cooking lamp, restored, House 8, Karmakulluk (60.1-6967; length, $17\frac{1}{2}$ in.)
30. Whaling harpoon head, House 3, Karmakulluk (60.1-6927; width, $2\frac{1}{2}$ in.)
31. Slate artifacts from Type IIa house, Karmakulluk
 - a. Whaling harpoon head blade, Site 4, House 7 (60.1-6955; length, $4\frac{1}{8}$ in.)
 - b. Slate blank, Site 4, House 7 (60.1-6957; length, 4 in.)
 - c. Slate blank for float plug, Site 4, House 7 (60.1-6959; diameter, $2\frac{1}{4}$ in.)
 - d. Slate blank, Site 4, House 7 (60.1-6958; length, $6\frac{1}{4}$ in.)
32. Mattock blade from Type IIa house, Karmakulluk
Site 4, House 7 (60.1-6963; length, 24 in.)
33. Slate skin scraper from Type IIb house, Karmakulluk
Site 4, House 4 (60.1-6936)
34. Sketch map of Site 5, Iglosoataligarsuk
35. Slate float plugs, Iglosoataligarsuk
 - a. Site 5, House 2 (60.1-6988a; diameter, $1\frac{1}{2}$ in.)
 - b. Site 5, House 2 (60.1-6988b; diameter, $1\frac{1}{2}$ in.)
36. Lance forepiece, socket, and thumb rest, Iglosoataligarsuk
 - a. Foreshaft, Site 5, Grave 1 (60.1-6976a; length, $12\frac{1}{2}$ in.)
 - b. Foreshaft socket, Site 5, Grave 1 (60.1-6976b; length, 2 in.)
 - c. Thumb rest, Site 5, Grave 1 (60.1-6976c; length, $1\frac{1}{4}$ in.)
37. Lead pendants, Iglosoataligarsuk
 - a. Site 5, Grave 1 (60.1-6980; length, $1\frac{1}{8}$ in.)
 - b. Site 5, Grave 1 (60.1-6981; length, $1\frac{1}{8}$ in.)
38. Large pot section, Iglosoataligarsuk
Site 5, Grave 2 (60.1-6983; length, $8\frac{1}{2}$ in.)
39. Artifacts from grave on Iglosoataligarsuk Island
 - a. Caribou scapula scraper (60.1-6907; length, $4\frac{1}{8}$ in.)
 - b. Iron pyrites (60.1-6903; diameter, $1\frac{1}{8}$ in.)
 - c. Quartz side scraper (60.1-6905; width, 2 in.)
 - d. Two quiver or box handles (60.1-6898ab; length of shorter one, $2\frac{1}{4}$ in.)
 - e. Brass pendant (60.1-6895; length, $1\frac{1}{2}$ in.)
 - f. Brass pendant (60.1-6895; length, $1\frac{1}{8}$ in.)
 - g. Brass pendant (60.1-6895; length, $1\frac{1}{8}$ in.)
 - h. Brass pendant (60.1-6895; length, $1\frac{1}{8}$ in.)
 - i. Brass headband (60.1-6895; width, $5\frac{1}{2}$ in.)
 - j. Seal tooth pendant (60.1-6897; length, $1\frac{1}{2}$ in.)
40. Map of the vicinity of Hawke Harbor showing the route followed

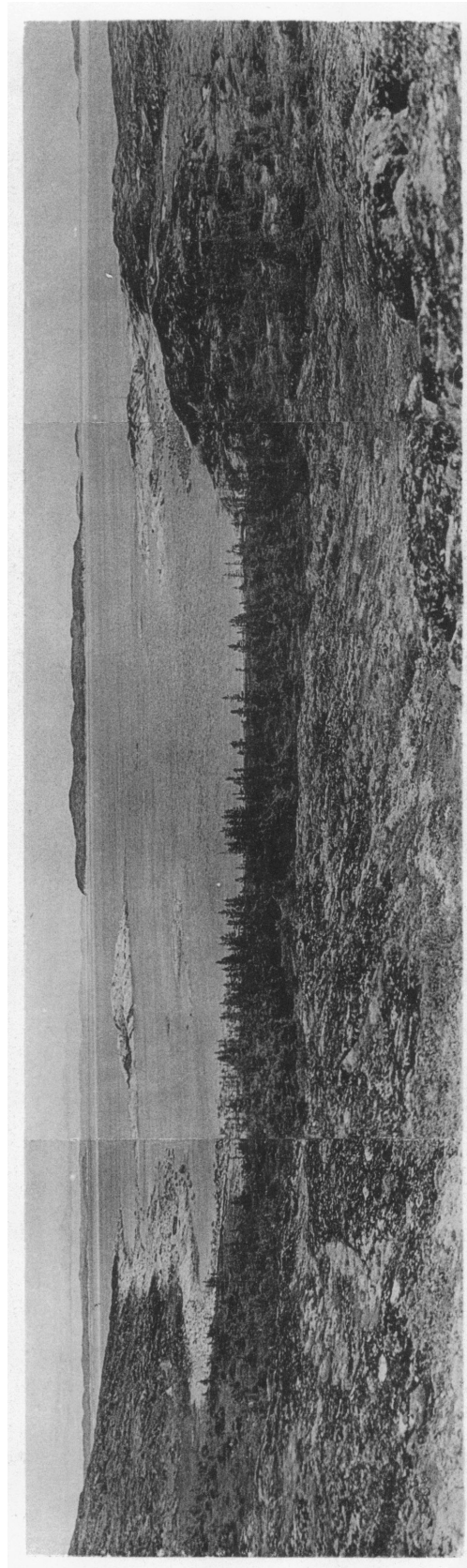
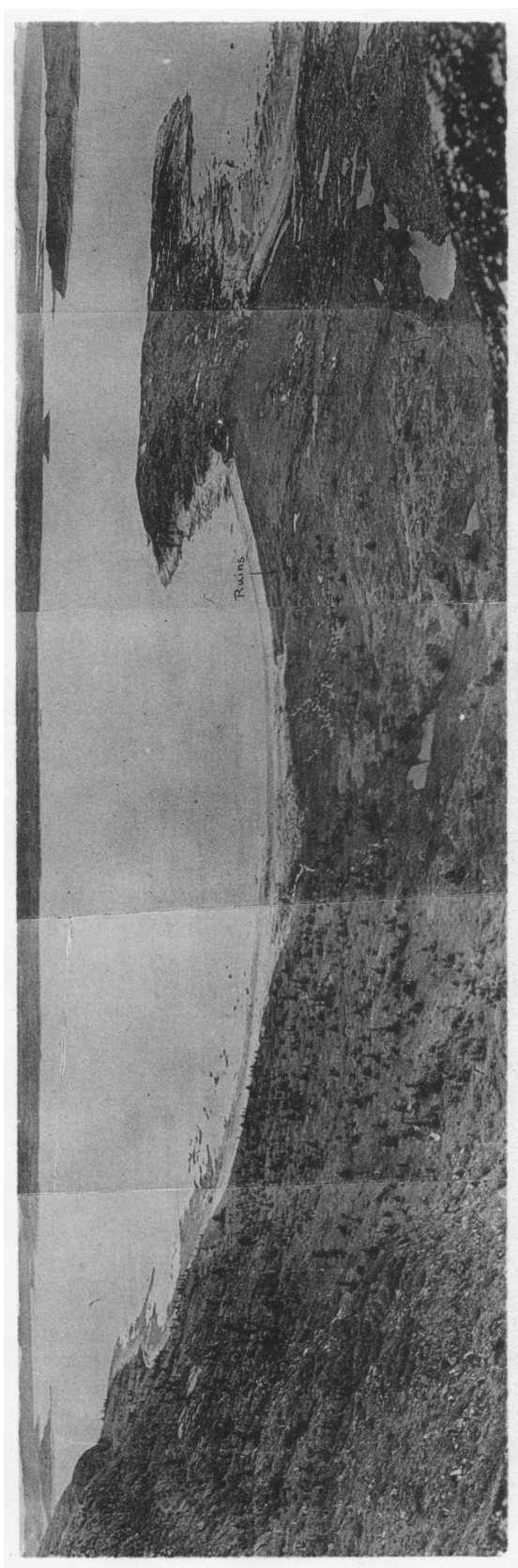
PLATES 9-12



Aerial views of Hopedale



Large Type III house ruin and section of midden deposit lying in front of it, Hopedale



Panoramas of sites at Napatalik and Karmakulluk



House ruin No. 6 (Type II) at Karmakulluk

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