

University of Washington Publications in Anthropology

Volume 13

Chugach Prehistory :

THE ARCHAEOLOGY OF PRINCE WILLIAM SOUND, ALASKA

By Frederica de Laguna

1956

University of Washington Press
SEATTLE

partitioned sleeping rooms on the sides, and a central fireplace. Even the winter log house was not described as semisubterranean, but the form of this dwelling may well have been modern. Depressions in the surface of the middens at Sites 2 and 17 were, however, interpreted by us as evidence of pit houses, although unfortunately we were not able to test this by excavation. Evidences of houses obtained at Palugvik (see section 12) would suggest that both surface and subterranean dwellings had been built at this site.

16. CHRONOLOGY

It will not be easy to determine the relative chronology of the sites in Prince William Sound. There was little difference between the culture of the oldest and that of the youngest layer at Palugvik other than changes in the relative proportions of certain types of artifacts, and material from the other sites was too scanty to permit of statistical comparisons. This was true even of Palutat Cave, where our short stay precluded more than a sampling of its deeper layers, and where the surface deposits offered chiefly perishable materials not preserved at other sites. There are, nevertheless, a few criteria on which we may attempt to base an estimate of relative chronology.

The most obvious clue is the presence of objects of foreign manufacture, such as cloth, glass beads, coins, china, and iron tools (or wood and bone showing marks of such tools), or the presence of objects, like the torsion trap, which were copied from foreign models introduced by the whites. Equally diagnostic are skeletal remains showing the lesions of syphilis or tuberculosis, diseases unknown in Alaska before contact with Europeans. Sites yielding such materials may be presumed to be younger than sites from which foreign objects are entirely absent and where instead we find abundant evidence of purely native manufactures, especially stone and bone tools and weapons, bone and wood worked by such aboriginal tools, and ornaments of bone, ivory, and shell.

We can perhaps make further distinctions among these prehistoric sites. Thus one criterion would be our impression of the degree of disintegration of shells and bones in the midden, although this impression is admittedly subjective, especially since it is not checked by tests for such factors as drainage, exposure, acidity of the soil, etc., which might affect the rate of decomposition. Another criterion, applicable in relatively few cases, would be the presence of trees which had grown since the abandonment of a site, since it seems to take much longer for trees to grow on the limy soil of a shell heap than for alders, salmonberry bushes, and devilclubs. Conversely, the preservation of the remains of a tree that had grown before the accumulation of a midden would argue lack of great age.

Since native copper tools were confined to the upper half of the midden at Palugvik (probably to the uppermost layer only), and since the upper half is also characterized by a relative abundance of fire-cracked rocks, splitting adzes (versus planing adzes), and barbed slate blades (versus unbarbed double-edged blades), we may take the presence or relative abundance of these types at other sites as suggesting approximate contemporaneity with the upper layers at Palugvik.

Objects of foreign manufacture may also, perhaps, fall into two groups, on the basis of which we may be able to distinguish between a protohistoric and a modern period. Thus Captain James Cook, who discovered Prince William Sound in 1778, writes of the natives encountered in Snug Corner Cove:

Amongst those who came on board, was a good-looking middle-aged man, whom we afterwards found to be the Chief. He was clothed in a dress of the sea-otter's skin . . . and had on his head such a cap as is worn by the people of King George's Sound,⁵⁸ ornamented with sky-blue glass beads,

⁵⁸ Cook is referring to the basketry hats, painted with whaling scenes, worn by the Indians of King George's or Nootka Sound, Vancouver Island. The Chugach hats he later specifies (p. 369) were "high truncated conic caps, made of straw," or else were painted wooden headgear carved to resemble a seal's head. Plate 46 of the album illustrating

about the size of a large pea. He seemed to set a much higher value upon these, than upon our white beads. Any sort of beads, however, appeared to be in high estimation with these people; and they readily gave whatever they had in exchange for them, even their fine sea-otter skins. . . .⁵⁹

These people were also desirous of iron; but they wanted pieces eight or ten inches long at least, and the breadth of three of four fingers. For they absolutely rejected small pieces. Consequently, they got little from us; iron having, by this time, become rather a scarce article. The points of some of their spears or lances were of that metal, others were of copper, and a few of bone, of which the points of their darts, arrows, etc. were composed.⁶⁰

After describing ear ornaments, nose pins, and labrets, Cook writes:

But we found many beads of European manufacture among them, chiefly of a pale blue colour, which they hang in their ears; about their caps; or join to their lip-ornament, which have a small hole drilled in each point to which they are fastened, and others to them, till they hang sometimes as low as the point of the chin.⁶¹

They have a great many iron knives; some of which are straight; others a little curved; and some very small ones, fixed in long handles, with the blade bent upward, like some of our shoemakers instruments. But they have still knives of another sort, which are sometimes near two feet long, shaped almost like a dagger, with a ridge in the middle. These they wear in sheaths of skins, hung by a thong round the neck, under their robe; and they are, probably, only used as weapons; the other knives being apparently applied to other purposes.⁶²

The metals that we saw were copper and iron; both of which, particularly the latter, were in such plenty, as to constitute the points of most of the arrows and lances.⁶³

An unknown member of Cook's expedition also remarked that the natives traded furs "for the smallest trifle made of iron." "They also had lances, the points of which

Cook's narrative shows a "Man of Prince William's Sound" wearing a basketry hat shaped like a truncated cone, painted with a conventionalized design suggestive of Northwest Coast art. Glass beads are sewn about the top and about the brim.
⁵⁹ Cook, 1785, II, 357 f. Strange in 1786 (1928, pp. 36, 37, 42) also noted the eagerness of the Chugach to obtain sky-blue glass beads and their rejection of beads of other colors, as well as their lack of skill in bargaining and great timidity in dealing with Europeans.

⁶⁰ Cook, 1785, II, 357 f.

⁶¹ *Ibid.*, p. 370.

⁶² *Ibid.*, p. 373.

⁶³ *Ibid.*, p. 379.

were mounted with iron and were of beautiful workmanship, like well-polished knives; these they refused to barter, although we offered them a great deal."⁶⁴

Cook was confident that his expedition was the first with which the Chugach had ever come in direct contact. He believed that the iron and beads had come to them, via inland tribes, from Hudson Bay or from settlements on the Canadian lakes. This opinion was unshaken, even when he found that the natives on Cook Inlet were "in possession of large iron knives, and of sky-blue glass beads, such as we found amongst the natives of Prince William's Sound."⁶⁵

I have already questioned Cook's explanation that these beads and the iron came from Canadian sources.⁶⁶ The most obvious assumption was that the Chugach obtained them indirectly from the Russians, via intertribal trade, since a number of Russian expeditions had already visited Kodiak Island and there was a Russian post on Unalaska. Bancroft explains that Cook refused to accept the beads and iron as evidence even of indirect contact with the Russians because he did not wish to acknowledge the presence of another foreign power in the neighborhood. Bancroft points out that the word for iron, "goone," used by the natives Cook met on Cook Inlet, is evidently the Russian "chugun" or "chugoon," meaning cast iron, but applied by ignorant Russians to all articles made of iron. Blue glass beads, furthermore, were among the few trade goods carried by the Russian *promyshleniki*.⁶⁷

It is evident that beads and iron weapons are the first foreign objects to be expected in Chugach sites, but the earliest date at which they might appear is still uncertain. We found no iron knives or spear points, but we did obtain a number of blue glass beads, of the type described by Cook (Chapter V, section 73). Two beads of this kind

⁶⁴ Forster, 1781, pp. 236, 237, my translation.

⁶⁵ Cook, 1785, II, 379 ff., 392.

⁶⁶ De Laguna, 1947, p. 225.

⁶⁷ Bancroft, 1886, p. 205 n. 20, p. 207 n. 21 and n. 25, p. 258.

were found among the bones of the arthritic woman near Site 20, Mummy Island, possibly fallen from the grave of the tubercular man above and may or may not antedate direct contact with whites. Two beads of the same type were found on the surface of Palutat Cave (Pl. 45, 26), evidently derived from a disturbed grave in Section F, and were the only objects of civilized origin in the cave. (A chip of fresh wood cut with a steel ax must be discounted, for it evidently is more recent than the Eskimo occupancy of the cave.) A bead from Nuchek was found with china, bricks, and hand-wrought iron tools. Glass beads of the same kind were found at Indian sites on the Yukon, some of which were relatively recent, while others, like Palutat Cave, yielded no other foreign items. It is quite obvious, therefore, that while these "Cook type" glass beads were among the trade goods brought by the Russians, they also reached the Tena and the Chugach before the Russians themselves appeared. The beads may have been of Chinese manufacture.⁶⁸ We know that the Russians carried Chinese wares, at least on some occasions, for Bering's men in 1741 left some Chinese articles, including 20 strings of beads, in a Chugach semisubterranean house on Kayak Island.⁶⁹ It is even possible that Cook saw some of these, although the natives probably had other sources of supply.

There is also evidence, however, that iron, and possibly beads, actually reached southwestern Alaska even before Bering's expedition in 1741. Thus Steller observes of the Aleuts encountered on the Shumagin Islands:

Two had hanging on their belt, like the Russian peasants, a long iron knife in a sheath of very poor workmanship, which may have been their own and not a foreign [the MS reads "European"] invention. . . . From the distance I observed the nature of the knife very carefully as one of the Americans unsheathed it and cut a bladder in two with it. It was easy to see that it was of iron and, besides, that it was not like any European product.⁷⁰

⁶⁸ De Laguna, 1947, pp. 224 f.

⁶⁹ Birket-Smith and de Laguna, 1938, p. 350 and note.

⁷⁰ Steller in Golder, 1925, II, 97.

Steller discussed the possibility that the natives were acquainted with the art of smelting iron or that they had obtained the knives from the Chukchi at Bering Strait. Golder adds in a note:

A party of Russians who spent the years 1759 to 1763 among the Aleuts of Unimak and Unalaska reported that the inhabitants "made knives out of iron, which iron they obtain from the islands to the eastward, which islands are wooded, in exchange for furs and clothing." In 1767 the officers of the Krenitsin and Levashev expedition saw and sketched these knives. It is not likely that the natives to the eastward knew how to smelt iron. They probably obtained this metal in some indirect way either from the white men or from wrecked vessels. In a report of a Russian hunter (about 1765) a statement is made that the Aleuts told him a large ship had been driven ashore to the eastward.⁷¹

Holmberg reports that the Koniag became acquainted with iron long before the arrival of the Russians, because the sea used to cast it up on their shores. He believes that the iron was from wreckage of civilized vessels and that the natives could not have failed to discover for themselves its potentialities as a tool material. An old native told him that iron was quite often found on the shores of Chirikof Island, southwest of Kodiak.⁷² Jochelson cites a similar report by Davydof that the Koniag, long before the coming of the Russians, used to find iron objects drifted in by the sea and appreciated them greatly.⁷³ Veniaminof and Holmberg both report an Aleut tradition that, long before the Russians appeared, white men came to Avatanak Island in a sailing ship from which the Aleuts obtained their first iron.⁷⁴ The Atka Aleuts used to find iron and copper among wreckage on the shore. Although such wreckage was supposed to be bewitched, certain daring individuals took these metals and secretly beat them into knives and lances.⁷⁵ Jochelson also adds a rather con-

⁷¹ *Ibid.*, note 216.

⁷² Holmberg, 1855, pp. 101, 135.

⁷³ Jochelson, 1933, p. 22.

⁷⁴ Hrdlicka, 1945, pp. 100 f.

⁷⁵ Jochelson, 1933, p. 15 n. 4, 18 f., 22 f.; Hrdlicka, 1945, p. 100.

fused account given in 1747 by an Aleut boy from Attu that

as he remembered, men dressed in long many-colored silk and cotton clothing came to the island Attu in small ships with one sail; their heads were shaved to the crown and the hair on the back was plaited into tresses. Evidently these were Chinamen (if the report is correct). The same boy told them that in former years a ship used to come to Attu, the men giving them iron, needles, and leaf-tobacco [which they did not want] in exchange for sea-otters' skins.

The latter ship seems to have been Russian.

There are a number of possible explanations for the presence of iron in southwestern Alaska before Bering's expedition. The first is trade from Asia via Bering Strait. Small scraps of iron were used by the Ipiutak Eskimo of Point Hope in the tenth century and by the Eskimo of St. Lawrence Island in the Punuk period for engraving tools, the introduction of metal gravers producing a revolution in art style on St. Lawrence Island; and little pieces may even have been available in the earlier Old Bering Sea culture for the tiny blades of splitting knives.⁷⁶ Although designs incised by metal tools (lines, compass-drawn dot-and-circle), which appear in later prehistoric Aleut art, in Kachemak Bay III, and on Kodiak Island suggest diffusion of Punuk style and perhaps of iron engraving tools,⁷⁷ yet there is no evidence at this time of larger pieces of iron at Bering Strait or farther south. The earliest known iron knives are from protohistoric Eskimo sites on St. Lawrence Island and the upper Kobuk River that yielded tree-ring dates in the last decade of the seventeenth and first half

of the eighteenth century. This iron may have been available as early as 1649, when the Russians reached the Anadyr River in their eastward expansion across Siberia.⁷⁸ Such pieces may even have been traded to southwestern Alaska.

The second possibility is that the Aleut may have traded with the Kamchadal or Kurilian Ainu, or even directly with Chinese, Japanese, or Russian adventurers before Bering.⁷⁹ But iron was evidently rare in southwestern Alaska, for it was used only for knife and lance blades. Only after Russian trade was firmly established did the natives secure ax blades. If glass beads were traded, they also must have been rare, for the earliest Russian travelers do not report them.

The third possibility is that iron was obtained from wreckage in the form of bolts, spikes, etc., attached to floating wood, but tools and beads could be obtained only from wrecks that were still fairly intact. There is evidence that Japanese ships were often wrecked near Kamchatka and on the American shores from the Aleutians to California.⁸⁰ But if their cargoes were secured, why did not the early travelers observe manufactured articles in native hands?⁸¹ If the metal came from flotsam, we must infer that the natives were able to adapt to iron the aboriginal methods of working copper. We are, in fact, told that the Aleut of Unalaska "shape the iron ingeniously by rubbing it between two stones, and wetting it frequently with sea-water."⁸² The sources cited above also suggest native

⁷⁸ Geist and Rainey, 1936, pp. 61 f., 226 f.; Giddings, 1941, p. 82; 1944, pp. 118, 131.

⁷⁹ De Laguna, 1947, pp. 224 f.

⁸⁰ Jochelson, 1933, p. 223; an unsigned report quoted by Pallas, I, 312; and Rickard, 1939. The Tlingit also affirm that they obtained iron from driftwood before they met Europeans (field notes, 1949 and 1950). Rickard argues convincingly that iron was obtained from wrecks, and suggests that Japanese and European survivors may even have taught the natives how to work it.

⁸¹ The only instance I have found is in the report of an expedition in 1754-57 to Ataku, Agatku (Attu and Agatu?), and Shemya Islands, where 3 copper plates were seen and were presumed to have come from a wreck (Coxe, 1803, p. 128).

⁸² Korovin (1762) in *ibid.*, p. 184; Pallas, I, 312.

⁷⁶ Larsen and Rainey, 1948, pp. 83, 135, 159, 182. Ipiutak ivory carvings appear to be copies of iron regalia (chains and swivels) worn by Siberian shamans.

⁷⁷ De Laguna, 1934, pp. 210 f. (metal-cut lines alone appear in Kachemak Bay II); Hrdlička, 1944, Figs. 50, 121, for example; Quimby, 1945, Pl. XIII, f, p. 78. Collins (1951, p. 434) and I interpret such designs as later on the Aleutians than the style consisting only of stone-incised elements suggestive of Dorset and Old Bering Sea I (Okvik) art. However, Quimby (1948) and Laughlin and Marsh (1952, p. 81) believe the metal-cut dot-and-circle to be very ancient on the Aleutians. This problem is briefly discussed in Chapter VI, section 2.

methods of working iron prior to white contact, as does Cook's report that the Chugach wanted pieces of iron. Portlock, who visited Prince William Sound in 1787, only 9 years after Cook and 4 years after the first Russian trading expedition under Zaikof, also states that the Chugach wanted only green and red glass beads and pieces of unwrought iron nearly 2 feet long, rejecting manufactured articles, even though hatchets, adzes, saws, and metal cooking utensils were offered.⁸³ Meares (1786-87) also found that the natives most desired pieces of iron which "approached, in any degree, to the form of a spear."⁸⁴

Even though we are unable to date the first appearance of beads and iron in Prince William Sound, both may have been present in 1741, or even before, and iron from driftwood was probably older than blue glass beads. The protohistoric period characterized by these objects was brought to a close by the expedition of Zaikof, Delarof, and Polutof to Prince William Sound in 1783-84 which initiated the historic period. Was it during the protohistoric period that the Chinese coin (dated 1662-1723) found its way to Site 7 in Hawkins Cut Off?⁸⁵

Venereal disease was almost certainly introduced into Prince William Sound by Zaikof's expedition of 1783-84, for the Russians pursued the Eskimo women as eagerly as they did their furs, and, in fact, Polutof and several others were finally killed by the outraged natives whose women had been raped, children kidnaped, and villages looted. This expedition, the many trading expeditions which followed, and the establishment of the post at Nuchek in 1793 brought an increasing amount of manufactured goods to the Chugach. A careful exploration of the deposits at Nuchek would, I believe, document the trans-

formation of aboriginal material culture. Among the early importations of this historic period were steel axes (at first generally hafted as adzes), steel needles, knives, saws, iron and copper kettles, tobacco pipes, china and glassware, various items of Russian clothing, etc. Large seines and the Siberian torsion trap (klipski) were adopted; Greek Orthodoxy supplanted or supplemented native religious beliefs; and Christian burial practices became customary. I believe that small blue, white, and black glass beads, of the type found on Glacier Island (Pl. 45, 11 to 13), are characteristic of this period.⁸⁶ Thus, Dixon reports of the Chugach in 1787: "The ears of these Indians [*sic*] were ornamented with plenty of small blue beads, but these, we had reason to suppose were procured from the Russians, as some knives and iron weapons which they shewed us, were evidently of Russian manufacture."⁸⁷

We seem, therefore, to have in Prince William Sound evidence of 4 stages of native culture: (1) older prehistoric, characterized by incised slate plaques, by the absence or relative scarcity of types characteristic of later periods, and by considerably decomposed middens; (2) later prehistoric, marked especially by native copper, by a relative abundance of fire-cracked rocks, splitting adzes, and barbed slate blades, and by an absence of foreign manufactures; (3) protohistoric, with native types like those of the later prehistoric culture, but with the addition of "Cook type" beads—and theoretically by small amounts of iron, although we found none; (4) historic, marked by "Glacier Island type" beads, abundance of white man's goods, evidence of introduced disease, and Christian burial customs.

Since it is only the presence of "Cook type" beads which have been taken to distinguish the protohistoric from late prehis-

⁸³ Portlock, 1789, p. 115.

⁸⁴ Meares, 1791, lxx.

⁸⁵ Cf. also the Chinese coin or amulet, perhaps as old as the Ming Dynasty (1368-1644), found at the head of Cook Inlet with a lamp with human figure of the Kachemak Bay III culture (J. A. Mason, 1928, pp. 179 ff.); and 2 Chinese temple coins in a Tlingit mask that is dated on shakyl evidence to 1680 (Bolles, 1893, p. 221, Pl. XXIV).

⁸⁶ De Laguna, 1947, pp. 138 f.

⁸⁷ Dixon, 1789, p. 147. Portlock (1789, pp. 113, 115) mentions that the Tanaina of Cook Inlet ornamented their ears and noses with small blue glass beads.

toric sites, I must admit that I may be in error if I assume that this distinction indicates a chronological difference. Such beads must have been rare, and it would be largely a matter of chance whether or not they were actually found at a given site. As precious personal ornaments they would be more likely to be preserved in graves.

In spite of this and other misgivings, I shall attempt to assign the Prince William Sound sites as far as possible to these 4 cultural stages or periods:

Older Prehistoric

Palugvik 1 and 2

Palugvik East Point midden (and probably burial ledge)

Palutat Cave, below 2 feet

Younger Prehistoric

Palugvik 3 and 4

Palutat Cave, material from upper layers, and most of the material from the surface

Site 2, Hinchinbrook Island

Site 6, Hinchinbrook Island

Site 7, Hawkins Cut Off, below turf

Site 8, Hinchinbrook Island

Site 17, Hawkins Island

Site 35, Port Gravina

Site 40 at Ellamar

Site 42, Galena Bay

Site 45, Long Bay

Site 54, Jackpot Bay

Site 55 at Chenega Village

Site 56, Chenega Island

Site 61, Bainbridge Island

Site 62, Evans Island

Site found by Lutz on Elrington Island

Site 65A and B, Montague Island

Protohistoric

Palutat Cave, latest grave or graves only (?)

Site 7, Hawkins Cut Off, turf only (?)

Older burial near Site 20, Mummy Island (?). Other burial caves on the island represent prehistoric to historic periods.

Historic 1784

Nuchek, Tatitlek, Kiniklik, and Chenega villages

Site 10, Hinchinbrook Island (at least part of burial cave)

Site 11, Hinchinbrook Island

Site 16, Hawkins Island. The village was still inhabited in 1805, and the large burial cave contains some modern material, but part of the midden and part of the large cave, as well as the small shelter, evidently contain older material.

Tubercular burial near Site 20, Mummy Island

Glacier Island burials

Site 64, Montague Island

Too little is known about the remaining sites to permit even a tentative classification.

purposely placed in the coffin, sifted in accidentally, or were brought in by mice. Near the head of the woman was found the skull of a mouse, and a completely mummified body of a mouse was in the rubbish near the feet. These mice were identified by Dr. Goodwin as belonging to the common Alaskan red-backed species.

The lid of the coffin is 3 feet 3 inches by 1 foot 8 inches (103 by 46 cm.). The ends are battered off, the inside surface adzed, and the split outer surface only slightly trimmed with an adz. The stains on the wood suggest that it was an old plank reshaped for its present use. The 2 side boards, 21 and 18 inches wide (54 and 47 cm.), were set on edge. The right-hand one is made of a crooked slab with knotholes, somewhat trimmed with an adz on the inner surface. The left side board is irregular in shape and beveled to fit the foot board in a mitered joint. The foot board was also set on edge. It is beveled along one end to fit the left side board and grooved across the other end to receive the right side board. A stake driven into the ground outside the coffin held this joint. The inner surface of the foot board was adzed, the outer surface simply split. It had evidently been used as a fire board, for there are 5 pits made by the fire drill in the outer surface. The head board was set on end between the projecting ends of the side boards and rested on the bottom plank. It was evidently an old piece of lumber, trimmed at the ends and adzed on both sides. The inside dimensions of the coffin are 36 by 16 inches, and the depth is about 18 inches (91 by 40 by 46 cm.). The fine adz marks on all the planks are those of a small stone tool.

Skeleton E2

Just north of grave E1 another coffin was discovered (Pl. 8, 2). Since the short time at our disposal and our lack of packing materials would have prevented proper excavation and preservation of the contents, this grave was not disturbed. The coffin was

full of earth and moss, and just under the lid were 2 partially mummified birds (ducks?). Since the lid of the coffin was covered by about 6 inches of earth, the introduction of the birds must have been at an ancient time, even though it was probably after the burial had been made, to judge by the accumulation of earth inside the coffin. Was the dead person held in such esteem that offerings of food were made to him long after death? Are we also to interpret as offerings of food the fish bones and shells found in the coffins of Palutat E1 and of Glacier Island I (see below)? Our informants told us that the relatives used to take food and water to the grave of a dead person, even a poor one, for 40 days after the burial. When a dead chief was placed in a rock shelter, the people used to go to look at him "every day" and bring him a share of everything they had to eat. Sauer reports that the Kodiak Eskimo buried food with the mummy of a chief, while Davydof says that he never heard of the Koniag placing food or anything else with the dead.¹⁰ Langsdorff reported that the Aleut used to include food among the grave goods.¹¹ It is possible that the birds in Palutat E2 do not represent food, but rather feathers.¹²

Skeleton F

At the back of the cave was a depression with stones about it, which we interpreted as an opened grave. Two blue glass beads of the "Cook type" (Pl. 43, 26) and the jaw of a mature woman (?) (Ex) were found near by and may have come from this grave. Just north of the depression was a pile of stones; presumably these had formed a cist and had been rolled aside by the grave robbers. A fragment of matting under the stones probably came from the grave.

¹⁰ Quotations in Hrdlička, 1944, p. 87.

¹¹ Quoted by Hrdlička, 1945, p. 179.

¹² Compare the wooden dish filled with finch wings, found by Hrdlička in a mummy cave on Kagamil Island, Aleutian Islands (*ibid.*, Fig. 172).

doubtless belonged to these individuals, but an identification was impossible. The 2 other persons were represented by such scanty remains that we can say nothing as to their age or sex. The skulls and most interesting bones had evidently been removed by curio hunters. We were told that 2 of the skulls had been sent to the U.S. National Museum, but that institution has no record of them.

Scattered among the bones in the cave were the following objects: 2 slate whetstones (Pl. 16, 8), a boulder chip (see Chapter V, section 12), the point of a slate "awl," 3 pieces of worked slate (see Chapter V, section 29), a greenstone drill point, a wooden peg, and some small blue and white glass beads. The latest burials in this cave are probably contemporary with those on Glacier Island, since the glass beads are identical, and the earliest may have been prehistoric. It will be remembered that the village was occupied in 1805.

The mouth of the cave was blocked with earth and boulders, but we do not know whether this was accidental. The bodies had not been interred, for the larger bones were exposed, and the smaller were covered by only a slight accumulation of dust and decayed matter.

In the scanty shelter of a small overhanging rock east of the village site we found the skeleton of a man (field no. 504) under a thin layer of shells, animal bones, and fire-cracked rocks. The body seems to have been placed on the back, with the head to the west or southwest, the arms extended at the sides. The skull and mandible were displaced; a portion of the pelvis lay beyond the head; the legs were represented by only one femur, tibia, and fibula, considerably disarranged. The body, if complete at the time of burial, could not have been covered by more than 6 inches of deposit, so we may attribute the condition of the skeleton to scavenging animals and to the dampness of the spot. A fine splitting adz (Pl. 10, 9) lay across the right humerus, evidently an intentional grave offering. A

stone saw (lost) was also found in the grave.

Site 20, Mummy Island

Two skeletons were found in the sheltered ledge just west of the southwesternmost point of Mummy Island. The lower skeleton is that of a mature woman. It was lying on the right side with the head to the east or southeast, the legs and arms tightly flexed. A number of bones showed arthritic lesions, a disease which was apparently common among both prehistoric and modern residents of the sound.

The upper skeleton, that of a mature to senile man, was on top of the lower skeleton, the head in the same direction. Although almost all the bones had recently been removed by curio hunters, it was evident from the small space in which the body had been confined that it must have been tightly flexed. Holding the skeleton in place against the back wall of the shelter was an adzed plank, set on edge on top of the skull of the lower skeleton. This burial had certainly been made in historic times, for the man had suffered from tuberculosis of the spine, a disease introduced by the whites.

Beside the woman's skull were 2 "Cook type" blue glass beads, but both burials were so disturbed that it was impossible to determine with which of them these beads had originally been placed. Nor was there any way of telling how long an interval had elapsed between the first and the second burial. A piece of skin, either from wrappings or from garments, was found among the bones. Neither of the burials could be called an interment, since the bones were but lightly covered with dust and rotted material.

Site 21, Mummy Island

Skeletons in wooden coffins made of adzed planks nailed together with wooden pegs were reported from a small cave on the south side of the island, although we found nothing in it. The use of pegs in

making these coffins is a novel feature, and the report may be incorrect.

Site 22, Mummy Island

The large burial caves on the south side of the island are said to have contained a number of mummies wrapped in sea otter skins and squatting with their backs against the wall. There were only a few bones left in 1930.

Site 26, island east of Mummy Island

Several burial caves are on the largest island east of Mummy Island, called *naḡn·a*.



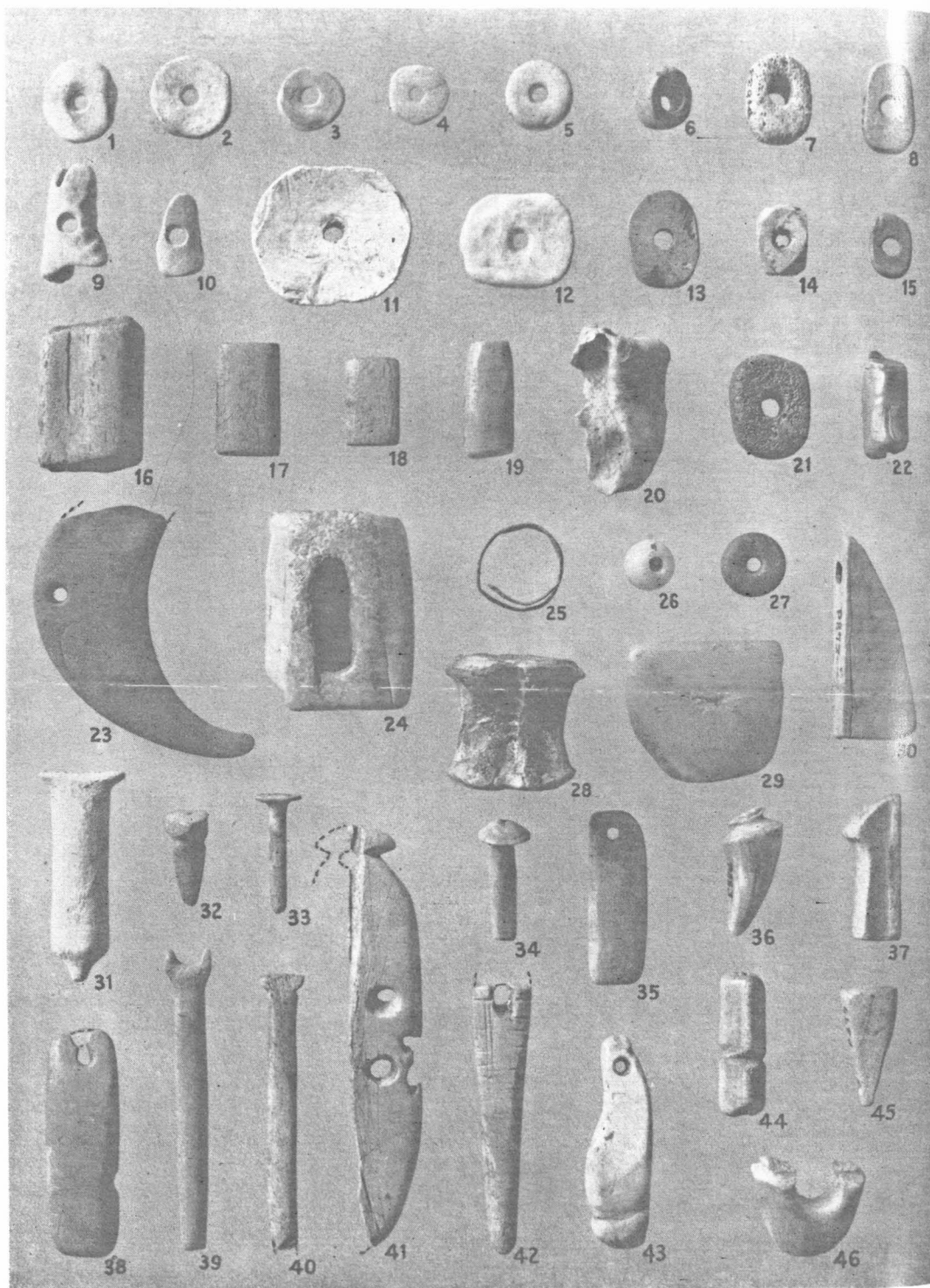
FIGURE 20. Mummy from burial cave at Site 26, island near Mummy Island

The cave nearest the water contained the scattered bones of several individuals, of which we took the only remaining mandible.¹⁹ In the upper cave or shelter was an open cist or grave surrounded by stones. Grave robbers had already removed all of the bones, leaving only a blue glass bead and a few fragments of plank, presumably the cover for the cist. In a small cave or chamber below this shelter we found the partially mummified body of a woman in a wooden coffin (Fig. 20). The planks of the coffin were so well adzed that we could not tell whether a stone or a steel tool had been used. The coffin was of the same type as those in Palutat Cave, although it did not seem to have been covered with earth, and when found was disarranged. Since the mouth of the cave was completely blocked by stones and earth, the disturbance of the coffin could not have taken place in recent times. The body lay on the left side, the arms and legs tightly flexed, the head to the north or northwest and the feet toward the mouth of the tiny rock chamber. The body had been wrapped in depilated sealskins, on which were traces of purple-red paint. That the body had also been clothed, or that garments were included in the wrappings, is indicated by the remains of a seal-skin boot upper or sleeve and by a fragment of a fringed garment made of several skins stitched together. Two pieces of a 4-strand braided sinew cord were found among the fragments and had probably been used to tie up the mummy bundle. The side of a birchbark basket lay on top of one of the coffin boards. Unless animals had managed to open the coffin, its disturbance was the work of ancient grave robbers, which suggests that the burial may have been that of a distinguished person, since the robbers must have thought there were valuable grave goods to be found.

Site 34, Port Gravina

According to Paul Elie Chimowitski's description, the mummy which he found on

¹⁹ Oetteking, 1945, pp. 59 f.



vertebrae were probably used as beads. The disks are identical with Aleut specimens from Dutch Harbor, Unalaska.¹¹⁷ Hrdlička found a number of fish vertebra rings and disks of the same type on Kodiak Island. Eleven rings, 2 disks, and 11 more rings were found together in a set, as if they had been strung for a necklace.

73. BEADS

Two types of glass beads were found, the significance of which for dating has been discussed in Chapter II, section 16, and there were also many aboriginal beads. The latter consist of 11 tubular beads of ivory and 24 of bone; 170 flat oval or rectangular beads of bone, 18 of ivory, and 320 (plus 64 fragments) of shell; 13 disk-shaped beads of bone, 222 (plus 105 fragments) of shell, and 4 of stone; not including a few other specimens found but subsequently lost. Almost all the beads of native manufacture came from the lower half of the midden at Palugvik, the majority from the grave of the old woman (Skeleton III) in Layer 1. Matrona Tiedmann reported that the Chugach used to model toy animals of clay and shiny beads of clay mixed with seal oil, but we found nothing of this kind.

Glass Beads

The smaller blue, white, and black glass beads we have called the "Glacier Island type" because they were found about the neck and under the skull of Skeleton II (Pl. 45, 11 to 13; 33-37-633) and Skeleton I (33-37-631, P.1305, blue beads only). Strings of presumably the same type of blue, white, and black beads, ascribed by Meany to the Hudson's Bay Company, were attached to a headband on the skeleton which he found on Glacier Island. Similar blue and white beads (33-37-574, P.1115) were among the bones in the larger burial cave at Site 164, Hawkins Island; and white beads of the same type, together with other beads and fragments of china (30-25-98) were found in front of the ruins of a large house at

Alaganik, the Eyak village on the Copper River, which was abandoned in 1892 or 1893.¹¹⁸ Similar beads were found at historic Indian sites on the lower Yukon and in the Yakutat area.¹¹⁹ It is probable that "Glacier Island type" beads were obtained from the Russians after 1778 or 1783, or even later.

The larger and rarer beads of pale blue glass, which we have called the "Cook type," evidently reached the Chugach during the protohistoric period before 1778 when Captain Cook saw them, but it has been impossible to date their first appearance. Two specimens of this kind (30-25-92) were found in the grave at Site 20 on Mummy Island; another (not saved) was in the upper burial shelter at Site 26 near Mummy Island; 2 (Pl. 43, 26; 33-37-661) were probably derived from a disturbed grave in Section F, Palutat Cave; and one was found with other manufactured objects (30-25-42) at Nuchek on Hinchinbrook Island.

Tubular Ivory Beads

Ten ivory beads in the collections (Pls. 42, 24, 32; 43, 19, 22; 44, 33, 72) are made of the central part of a bear canine, from which the tip and the root have been sawed off. The nerve canal, usually enlarged at one or both ends, has been utilized for stringing, and the outer surface or enamel ground off to expose the inner ivory. The beads are from 1.5 to 2.8 cm. in length and are oval to rectangular in section, with one end usually smaller than the other. In addition to the finished beads, 13 tips cut from bear teeth and partially shaped central sections were also found (Pls. 42, 33; 43, 36). There is also a tubular bead of walrus ivory, 3.5 cm. long and 2.6 by 1.5 cm. in diameter (Pl. 43, 24).

Two tubular ivory beads come from the grave in Palugvik 1.

Tubular Bone Beads

Twenty-four beads made of sections of animal or bird bone were found, 5 in the

¹¹⁷ Capps collection, University of Pennsylvania Museum.

¹¹⁸ Birket-Smith and de Laguna, 1938, pp. 20 f.

¹¹⁹ De Laguna, 1947, pp. 224 f; excavations near Yakutat, 1949 and 1952.

procured from the Russians."¹²⁵ Meares writes: "Their ears are full of holes, from which hang pendants of bone or shell."¹²⁶

In Chapter II, section 16, we cited a passage from Cook and referred to the accompanying illustrations which indicate that the Chugach wore beads attached to their medial labrets and to their nose ornaments. Cook also writes: "Both sexes have the ears perforated with several holes, about the outer and lower part of the edge, in which they hang little bunches of beads, made of the same tubulous shelly substance used for this purpose by those of Nootka."¹²⁷ The men and women illustrated in Plates 46 and 47 of the *Album* wear a veritable fringe of dentalia hanging from the ears. The woman has at least six holes in the lobe and helix. Cook also noted that glass beads were worn in the ears and that "They also wear bracelets of the shelly beads [dentalia?], or others of a cylindrical shape, made of a substance like amber; with such also as are used in their ears and noses." Glass beads were also fastened to men's basketry hats; Plate 46 shows a row of such beads stitched around the brim and another about the top of the crown. Colnett found that the Chugach preferred transparent, smooth, round beads, no bigger than a large pea, though they would accept any color. He also remarks that they had quantities of beads of a different kind, not specified, with which they ornamented their dogs.

Beads were also fastened to various articles of dress. Thus the old woman buried in Palugvik I evidently wore an apron of some kind which hung from her waist to her knees and which was composed of or decorated with beads. These 800-odd beads were found in a mass extending over and between the femurs. No pattern could be determined, but it was evident that beads of the same material, size, and shape had been strung together in lines. Our Chugach informants told us that both sexes wore an

apron or genital covering. The woman's apron was described as covering the breasts (i.e., it had a bib in front?). There were fringes along the edge, and some aprons were decorated with beads; others were ornamented with different colored skins. It is evident that the beads in this grave belonged to an apron of this type, although there is no archaeological evidence to show that it covered the body above the waist.

We were also informed that women wore beaded headbands, and that the chief's daughter (at puberty?) wore a hoodlike veil made of beads and dentalium shells which hung down her back, sometimes to the heels. Beads were said to belong only to chiefs and to members of their families; poor people never had any unless they had been given a few by a member of the chief's family. The beads belonging to a person were buried with the dead owner.

Dentalium shells, mentioned in connection with the veil of beads, were also used as nose ornaments. Spruce root hats were said to have been decorated with sea lion whiskers and dentalium shells.¹²⁸ These dentalium shells were obtained in trade from the Tlingit, but such trade was small because the Tlingit were so rich. We found no dentalium shells in Prince William Sound, and only one has been found in Kachemak Bay.¹²⁹

74. PENDANTS

The pendants from Prince William Sound are of 5 types: those made of (1) bear or seal canines, (2) bone or ivory, (3) shell, (4) marine gastropod opercula, and (5) stone. It was reported that amber, found on the beaches of Kayak Island in Controller Bay, was used for ear ornaments, presumably in the form of pendants, but we found no amber.

¹²⁸ Cf. Birket-Smith, 1941, Fig. 7, a painted basketry hat, decorated with dentalium shells and small red, black, and white glass beads, tentatively identified as coming from Kodiak Island; and Fig. 8, various Kodiak hat ornaments, etc., made of sea lion whiskers, small glass beads, etc.

¹²⁹ De Laguna, 1934, Pl. 51, 8, from Kachemak Bay III.

¹²⁵ Dixon, 1789, p. 147.

¹²⁶ Meares, 1791, I, lxi.

¹²⁷ Cook, 1785, II, 369, 370.

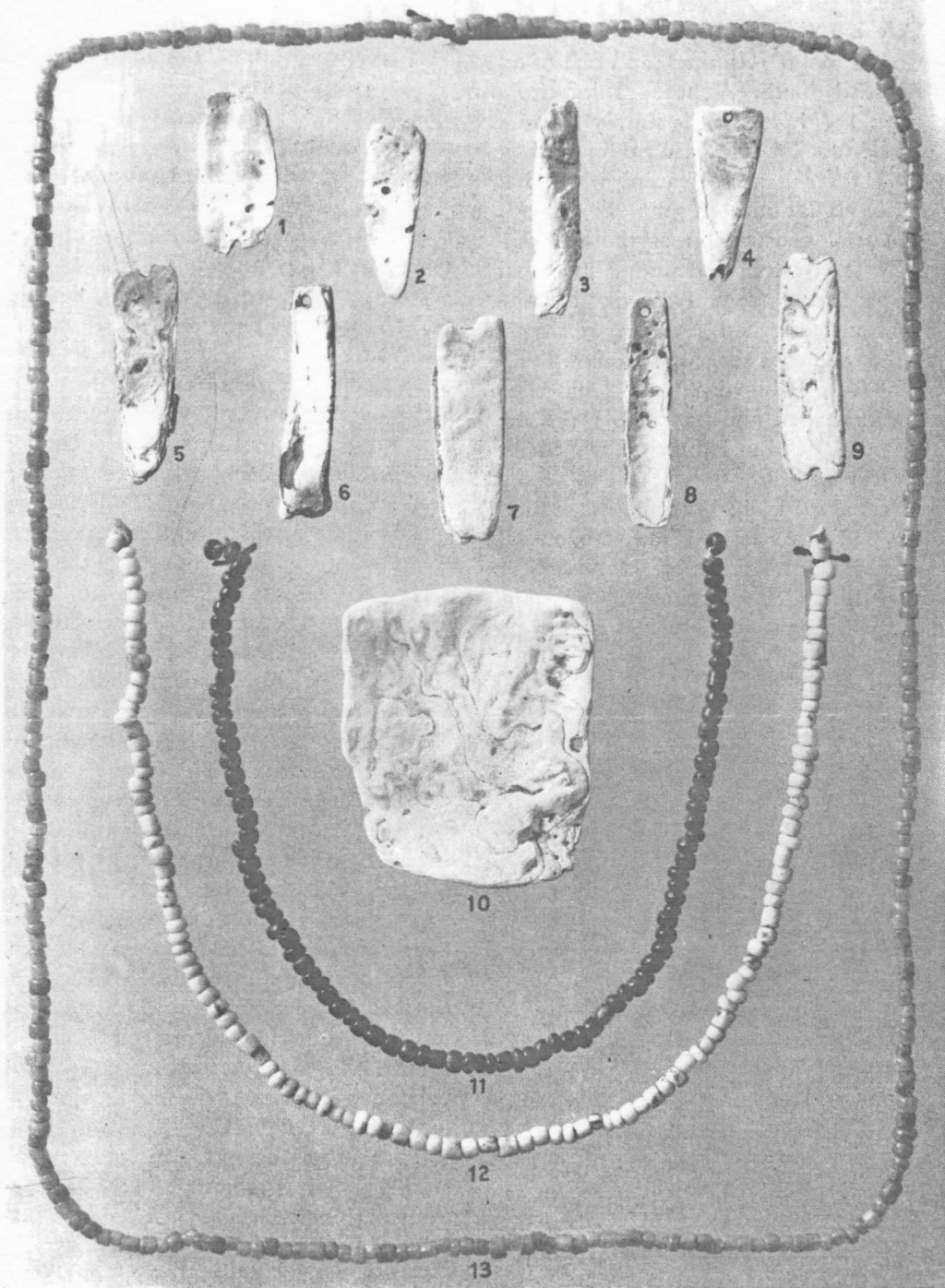


PLATE 45. Shell pendants and glass beads found with Skeleton II, Glacier Island, Site 43.

Scale slightly over $\frac{1}{2}$, natural size

1 to 10, Shell pendants, representing one ear ornament (P.1304); 11, black glass beads (P.1303a);
12, white glass beads (P.1303b); 13, blue glass beads (P.1303c)