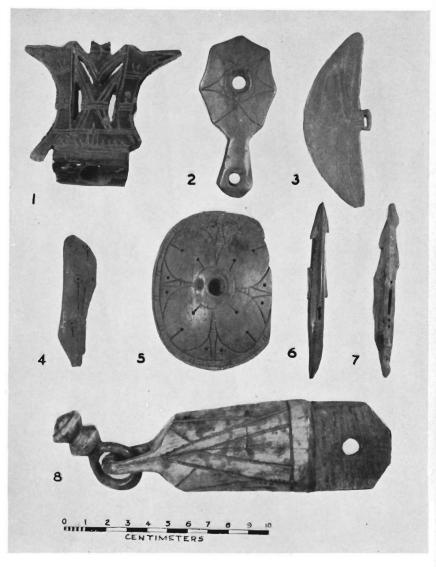
Punuk sinew spinner or spindle buzz base, 7.3 cm



This type of object has been identified as a sinew spinner (Geist and Rainey, 1936, p. 210 and Pl. 72-5, 7.8 cm., after Nelson, 1899, pp. 111-112 and Fig. 31), or as the base of a toy spindle buzz (Collins, 1937, Pl. 67-2 and pp. 176 and 196). An OBS example from the Ekven site (Arutiunov and Sergeev, 1975, p. 153 and Fig. 79-2) was originally identified by Dorian Sergeev as the top portion of a friction drill, but is now considered to be a sinew spinner (Sergei Arutiunov, personal communication).

Literature:

- Arutiunov, S.A. and Sergeev, D.A. (1975): *Problemy etnicheskoi istorii Beringomoria Ekvenskii mogilnik* (Problems of the Ethnic History of the Bering Sea The Ekven Cemetery), Nauka, Moscow [English translation by Richard L. Bland, Shared Beringian Heritage Project, U.S. National Park Service, 2006].
- Collins, H.B. (1937): *Archaeology of St. Lawrence Island, Alaska* (Smithsonian Miscellaneous Collections, Vol. 96, No. 1), Washington, DC.
- Geist, O.W. and Rainey, F.G. (1936): *Archaeological Excavations at Kululik, St. Lawrence Island, Alaska*. Miscellaneous Publications of the University of Alaska, U.S. Government Printing Office, Washington, DC.
- Nelson, E.W. (1899): *The Eskimo About Bering Strait*, Annual Report, Bureau of American Ethnology, Washington, DC.



Objects from the Upper Levels of the Beach Slope Cut. 1, Wedge-Shaped "Ceremonial" Object; 2-3, Unidentified Objects of Ivory; 4, Fragment of Wooden Snow Goggles; 5, Ivory Sinew Spinner (?); 6-7, Dart Heads; 8, Double-Eye Block of Ivory.

the Punuk style as represented on some harpoons. It has the same form and design as those "unidentified" objects found in the south slope of the test cut.

UNIDENTIFIED OBJECTS

Another unidentified object of ivory (Pl. 72, Fig. 2) has the shape of a toy hand mirror. The edge of the oval body is scalloped and transverse perforations appear at the center of this oval body and at the base of the handle. One surface only bears a simple, star-shaped, incised pattern encircling the central perforation. The length over-all is 8 cms. This specimen was found at the same level and in approximately the same section as the wedge-shaped object described above.

A third unidentified object made from ivory (Pl. 72, Fig. 3) is a thin, semilunar implement 8.5 cms. in length with a perforated projection on the straight edge. Both flat surfaces bear a series of irregular incised lines which converge at the base of the projection. The object may be an ornamental pendant, a fastener, or a button. It was found twelve feet east of, but at approximately the same level as, the group of Thule type harpoon heads.

SNOW GOGGLES

A fragment of a pair of wooden snow goggles (Pl. 72, Fig. 4), found in the same level and section, is decorated with three converging lines the outer ends of which terminate in circles enclosing small punctures, elements characteristic of Collins' "late" Punuk design.

SINEW SPINNER (?)

A curious ivory object (Pl. 72, Fig. 5) which may have been a sinew spinner as described by Nelson, was found near the surface of the 1935 cut, 111 feet east of the test cut. It is an oval disc, with one convex and one concave surface. On the concave surface is a raised, lyre-shaped eminence which may have been used to hold the sinew during the twisting or spinning. At the center of the convex surface there is a round socket which retained the fragments of a wooden shaft. (The convex surface bears an incised design which resembles a four-leafed clover. Within each "leaf" are two short lines terminating in a puncture. Between the "leaves" are triangular figures, also associated with punctures. Deep incisions encircle the rim and the central socket. (This specimen was found in the upper levels of the deposit some distance from any harpoon.

DOUBLE-EYE BLOCK

A double-cye block of ivory (Pl. 72, Fig. 8) is not definitely located in the cut, but field notes record it in association with a house structure

⁷⁴ Nelson, 1899, 112.

shredder of walrus ivory, with four large, coarse teeth and a narrow handle.

Figure 1, plate XLVIII a, from Sledge island, is a three-toothed sinew shredder with a flattened knob-like blade at the end of the handle.

Figure 3, plate XLVIII a, from Cape Nome, is a small, flat piece of deerhorn with three flat teeth on one end, and figure 2, plate XLVIII a, from Sledge island, is a similar implement made of ivory.

Figure 4, plate XLVIII a, from Cape Darby, is a toothed ivory implement of this kind, one tooth being attached to the side of the main piece by means of a strong wrapping of willow root.

Figures 7 and 9, plate XLVIII a, from the lower Yukon; figure 8, from Mission, and figure 10, from Sabotnisky, are specimens of combs which have been used in making grass thread.

The accompanying figure 30, from Sledge island, represents some of the implements used for twisting sinew cords. A full set consists of two flattened ivory rods with a small knob or head at each end, and four bodkin-like ivory rods each with the figure of a deer-head at the upper end. These implements are all pierced with holes and strang

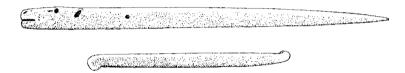


FIG. 30-Sinew twisters (1).

on a rawhide cord in order that they may conveniently be carried and not readily mislaid.

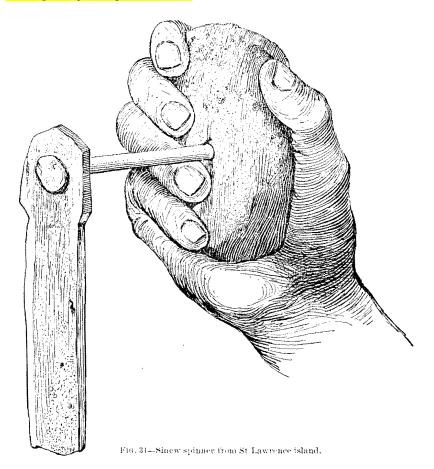
Figure 5, plate XLVIII b, from Cape Vanconver, and figure 5 of the same plate, from Nunivak island, represent reels on which thread is wound. They are sometimes used also as shuttles in making small meshed nets.

Figures 4 and 6, plate XLVIII b, from Nunivak island, are specimens of thread reels carved to represent mythical beings, half woman and half seal, with the hands held against the sides of the faces.

Figures 3 and 7, plate XLVIII b, from the same island, are ivory reels carved to represent seals.

Figure 31 represents a sinew cord spinner from St Lawrence island. This object is made of ivory and consists of three parts; these are a quadrate base for holding in the hand, and pierced in the middle of the outer surface for the insertion of one end of a slender rod having a knob at its other end. A flattened rod is pierced near one end and slipped upon the first-named rod, upon which it revolves. The sinew to be spun is attached to the flattened rod at the shoulder, just below the hole, and by a rapid circular motion of the hand the flattened rod is caused to revolve rapidly, giving the desired twisting to the cord.

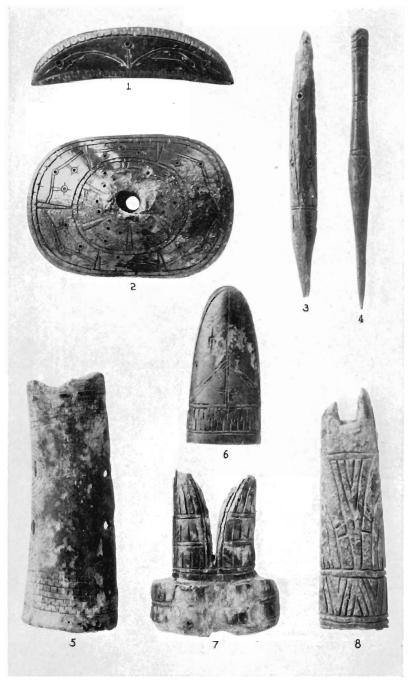
No implements of this kind were seen among the Eskimo elsewhere in the region visited, and it is quite possible that the St Lawrence islanders obtained the idea from some of the whaling ships which step so frequently along their shore.



SKIN-DRESSING TOOLS

For dressing and tanning skins several different implements are used, the most important of which are scrapers for cleaning the fat and water from the surface, and polishers for the purpose of softening the hide. From the lower Kuskokwim to the northern part of Norton sound and the coast of Bering strait, stone-blade scrapers with long handles are the prevailing style, although on the coast and islands of Bering strait a short-handle scraper is frequently seen, while from Kotzebue sound northward they are all of the latter type, with the handle made to fit the hand and elaborafely carved.

Plate XLIX, 17, from Big lake, represents one of these scrapers of



DECORATED OBJECTS FROM SEPLOWAGHYAGET AND OLD SECTION OF GAMBELL, PUNUK CULTURE. APPROX. 3/5 NATURAL SIZE.

(For explanation, see pages 415-416.)

(pl. 30, figs. 19 and 2•) between the stones of house no. 1. All three show the same characters, a deep, wide notch above with a slight beveling of the two upper edges, and a small notch below. Plate 30, figure 18, differs from the other two in having an oval-rectangular perforation through the center. The small button-shaped ivory object. plate 30, figure 21, was found among the rocks at the north end of the site. It is 2.3 cm square with rounded corners, a flat base and a rounded top. Plate 30, figures 22 and 23, are small plaques of ivory, both broken; their average thickness is 3 mm. Plate 30, figure 28, is a smaller, thinner piece, with a longitudinal groove (on the opposite side), and two small round holes at the larger end; it is 3 mm thick. Plate 30, figure 29, is a section of a small walrus tusk, notched at the end.

In plate 46, figures 0-12, are shown four ivory objects which seem to be parts of what Nelson has described as "sinew spinners" from St. Lawrence Island (Nelson, 1899, pp. 111-112, fig. 31) but which in all probability were instead parts of toy "spindle buzzes" such as Bogoras has described from the Chukchee and Kerek (1964-09, vol. L, pp. 273-274, fig. 197, $d_{x}(e)$ and which are also known from the Ammasalik and Egedesminde districts in Greenland (Thalbitzer, 1914, pp. 654-655, figs. 379, 38•; Birket-Smith, 1924, fig. 300). Plate 46, figures 9 and 10 (cut 9, 48 in., and cut 27, 22 in.), are probably the bases of such toys. Figure 9 is rectangular in form, with a flat base and a convex upper surface in the center of which is a round pit 12 mm deep. Figure 10 is of the same shape but has the corners rounded and the central hole extending completely through. Two others were found, one oval, from cut 21, 42 inches, and one circular, from cut 7, 8 inches. We found none of the flattened rods or handles; the small ivory object, figure II (cut 24, 64 in.), perforated at one end, is the only specimen in the collection which might have had such a function. Figure 12 is one of several spike-shaped ivory objects corresponding to the slender knobbed rod which was inserted in the ivory base. The latter, it should be noted, might in the round form be regarded as tops.

In plate 37, figure 6, is shown an ivory object of unknown use from cut 24, depth 80 inches. It resembles in certain respects an ivory object previously described by the writer (Collins, 1929, pl. 5). It is 11.8 cm long and 5 cm wide and has the under side hollowed. In addition to the two perforations shown there are two smaller transverse openings near the upper end. This end of the object was carved to represent the blunt head or snout of an animal with a large mouth and with eyes indicated by round deep holes in which were set plugs of wood. The surface has been ornamented with incised designs—Old Bering Sea—but these are so weathered as to be hardly visible.

interest in that they show so clearly the relationship of the spurred line to the zigzag, a negative design resulting from the thickening of the bases of the spurs. The lower band contains a perfect zigzag or wavy line and so does the left half of the upper band. On the right half of this band, however, the alternate spurs are longer and more slender and present the usual appearance of the "toothed line." For some reason the artist chose to leave the spurs at this stage instead of widening the bases so as to produce the negative zigzag design. This is the only Punuk example I know of in which the very common alternate spur design has been transformed into a zigzag, although the process is constantly recurring in modern Eskimo art, as well as in Melanesian, European Iron Age, and other styles that employ the spurred line motive. We might also note here that although the single spurred line and the ladder design are characteristic of Old Bering Sea art, the simple alternate spur design has not appeared. This, however, may be due to accident, for on the fragment of an Old Bering Sea brow band shown in plate 58, figure 12, there appears a fully developed zigzag pattern.

Plate 67, figure 2, (is an ivory object similar to several found at Miyowagh (pl. 46, figs. 9, 19), and which apparently is to be regarded as part of a spindle buzz. The present specimen is flat on the under side, convex on the upper, and perforated through the center. The upper surface is rather elaborately ornamented in phase 2 of style 2. Around the periphery is a band formed of two lines with alternate spurs pointing inward, and about half way up there is a similar band. The spaces between the bands and at the center are divided off by means of narrow inverted **V**-shaped figures, and between these are pairs of slightly curving lines connected at the center by a small nucleated circle; rising from the curving lines are pairs of short lines terminating in circles to which are attached three equidistant spurs.

Plate 67, figures 6 and 8, are two objects which I am unable to identify. They are straight across the lower end, rounded above, and have in the base a deep cylindrical socket. Figure 8 seems to have had a link pendant at the end; the decoration consists of very deeply incised lines, some straight, some V-shaped and others curving around to the opposite side. The lines on figure 6 are less deeply incised; at the base is a band containing long alternating spurs and from this rises a pair of vertical lines which are joined at the center by two oblique bands of three lines each in the open spaces; above these are two short detached lines each with a pair of downward-pointing spurs attached. Red pigment still remains in most of the incisions, as is so often the case with objects bearing a Punuk decoration.