

AN ARCHAEOLOGICAL SURVEY IN THE UTOPIA AREA, ALASKA

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and

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GENERAL STATEMENT

Lithic remains fashioned by early inhabitants of the Utopia area were discovered during the junior author's investigations of altiplanation terraces and glacial geology in the environs of Indian Mountain. The purposes of this paper are (1) to briefly describe the sites from which the remains were collected, (2) to present a description of the artifacts, and (3) to indicate the probable derivation and use of the material.

AREAL SETTING

Utopia is located along the banks of the upper Indian River 26.4 km east of Hughes at 58° 59' 33" N. Latitude and 153° 31' 35" W. Longitude in the Melozitna D-2 Quadrangle, Alaska.* This settlement lies at 303 meters within the maturely dissected Indian River Upland Province of western interior Alaska (Wahrhaftig, 1965, pl. 1). Surrounding ridge crests vary from 460 to 1220 meters in elevation and commonly bear well-developed altiplanation terraces above 610 meters. The highest landmark in the vicinity is Indian Mountain with an elevation of 1290 meters; its summit is 8.2 km north of Utopia.

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* U. S. Geological Survey topographic map, scale 1/63,360 (1955).

CLIMATE AND VEGETATION

The Utopia area has a continental climate typical of western interior Alaska (Watson, 1959; 24). The local mean annual temperature based on an incomplete meteorologic record from January 1951 to December 1961 is -4.8 C. (Fig. 1). July with a mean temperature of 13.8 C. is the warmest month of the year and December with a mean temperature of -24.9 C. is the coldest month. The maximum recorded temperature is 29.4 C. (July) and the minimum is -49.5 C. (December). Mean annual precipitation (50.44 cm) is higher than Fairbanks (29.74 cm) (Pewe, 1954). Heaviest snowfall occurs during January when the mean is 43.9 cm.

The dominant vegetation in poorly drained areas around Utopia is black spruce (*Picea mariana*) and alder (*Alnus* spp.). White spruce (*Picea glauca*), balsam poplar (*Populus balsamifera*), quaking aspen (*Populus tremuloides*), and Alaska paper birch (*Betula papyrifera*) inhabit better drained situations. Local shrub plants include willows (*Salix* spp.), Labrador tea (*Ledum decumbens*), narrow-leaved fireweed (*Epilobium angustifolium*), prickly rose (*Rosa acicularis*), and blueberry (*Vaccinium uliginosum*). Except for trees in protected sites, only alpine tundra exists above 580 meters elevation; it consists primarily of *Cladonia* spp., *Cetraria* spp. and other foliose ground lichens with dwarf and resin birches (*Betula nana*, *B. glandulosa*), dwarf fireweed (*Epilobium latifolium*), sedge (*Carex* spp.), mountain aven (*Dryas octopetala*), heather (*Cassiope tetragona*), and bearberry (*Arctostaphylos alpina*).

GEOLOGY

A reconnaissance study of the bedrock geology of the Hughes Quadrangle has been done by Patton and Miller (1966). The area of our investigation is underlain by Late Jurassic to Early Cretaceous andesitic tuffs, agglomerates, and flows. These units are intruded by a Late Cretaceous quartz diorite-quartz monzonite pluton along the lower western flanks of Indian Mountain and the Pocahontas Hills west of the area of investigation. East of the study area the bedrock is dark

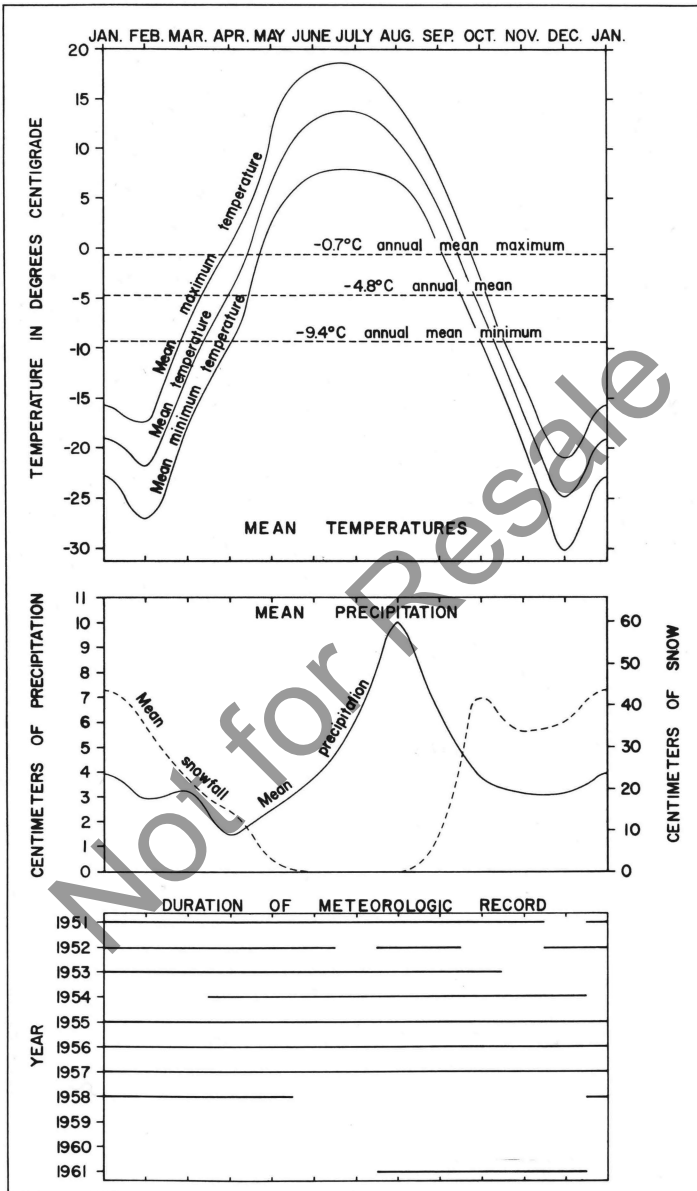


Figure 1. Mean monthly climatic data for Utopia, Alaska. Source is United States Air Force Climatic Center, 1962.

the Norton-Choris ceramics, as, of course, has been suggested by others (e.g., Oswalt 1955).

Summary.--Linear stamping is known from the Norton type site at least as early as the middle of the first millennium B.C. It may appear as late as A.D. 600 or 700 farther south. A variant is the decorated ware of St. Lawrence Island of around A.D. 300 or earlier.

Check Stamped Wares

At the Norton type site, Norton Check Stamped pottery is described as tempered predominantly with plant fiber, mean wall thickness 7 mm., with the exterior bearing paddled impressions of small rectangles or squares, the sides of which normally measure less than 4 mm (Griffin and Wilmeth 1964). Vessel shape was that of Figure 3, a, b. The temporal occurrence at the type site is apparently the same as that of linear-stamped decoration, here considered to begin somewhere between 700 and 200 B.C.

Farther south at Chagvan Bay, thin pottery stamped with small checks is apparently associated with charcoal dated at A.D. 210 ± 60 , A.D. 540 ± 60 , and A.D. 660 ± 250 (WSU-102, WSU-123, WSU-117; Ackerman 1964). The sherds appear in a Norton-like context, and may have been contemporaneous with linear-stamped pottery. Vessel rims (Ackerman 1964: Fig. 7, f) suggest the vessel form to have been similar to that in Figure 3, a.

Pottery virtually identical to both that of Chagvan Bay and of the Norton type site appears in the Naknek drainage by the second century B.C. Here there is no clear evidence that the check-stamped pottery was associated with linear-stamped ceramics. In the resume of the Naknek material which follows, dates cited in the Christian calendar are derived from a battery of thirty-two separate C-14 determinations, both published (Trautman 1964) and unpublished, which are directly pertinent to cultural material. The Naknek drainage ceramics have been only briefly described in print (Dumond 1962).

Smelt Creek Check Stamp is the local designation of the

ARTIFACT DESCRIPTIONS

The artifacts described herein are treated on a site-by-site basis because consideration of them as a single collection suggests a cultural correspondence between sites which cannot be supported by available data. These surface collections must be treated as being mixed both temporally and culturally, especially in view of disturbances by frost action and lack of a stratigraphic framework, so that even the contemporaneity of artifacts within each site is very questionable.

Several of the sites contained nothing more than waste flakes but were collected to assess the extent that terrain was utilized. Other localities contained the projectile points, scrapers, knives, blades, a drill, and retouched flakes listed in the following inventories.

- Site 1* 65° 59' 04"N; 153° 41' 52"W
 1 retouched flake.
 2 waste flakes
- Site 2* 65° 58' 01"N; 153° 40' 06"W
 1 waste flake.
- Site 3* 65° 58' 18"N; 153° 39' 47"W
 2 waste flakes.
- Site 4* 65° 58' 40"N; 153° 39' 04"W
 2 waste flakes
- Site 5* 65° 58' 40"N; 153° 38' 53"W
 3 retouched flakes
 37 waste flakes
 projectile point: I.M. 5(3)

This projectile point was manufactured from a gray coarse-grained chert. It is ob lanceolate in form with the widest portion near the middle. The tip is missing. The basal edges have been ground approximately 1/3 of the way toward the tip. The cross section is lenticular. L 50.8 mm W) 23.4 mm T) 6.8 mm
Figure 3:J *end scraper: I. M. 5(2)*

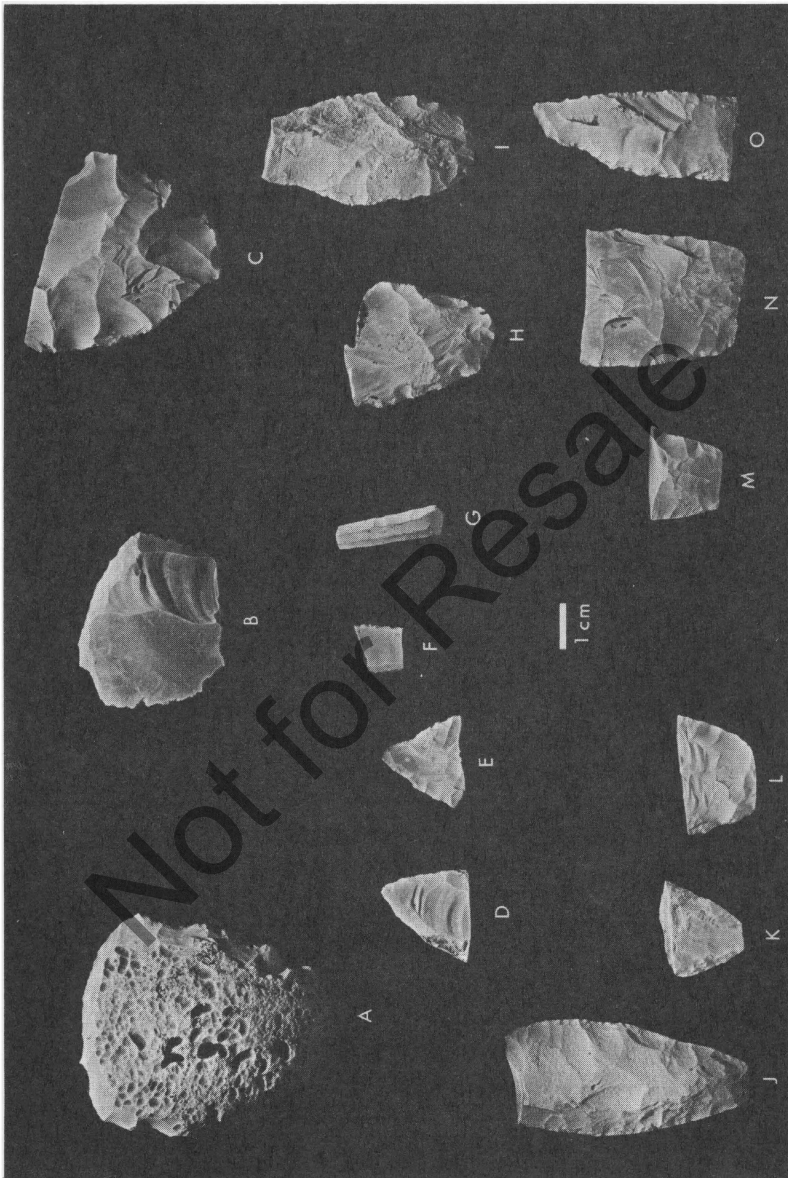


Figure 3. Artifacts from the upper Indian River area, western interior Alaska.

This end scraper was manufactured on a thick cortex flake of black obsidian. The form of this scraper is sub-triangular and is plano-convex in cross-section. Both lateral edges and the front edge have been worked. No attempt was made to remove cortex on the dorsal surface. Some wear can be seen on all edges.

L) 53.5 mm W) 44.0 mm T) 11.9 mm, edge angle 50° Figure 3:A *knife*: I.M. 5(4)

This knife is made of black obsidian. Although it is only a fragment, the complete specimen was probably bi-convex in form. It is bifacial but the ventral surface was worked minimally. The dorsal surface has been randomly flaked in a collateral fashion. A portion of the original platform for the flake from which this specimen was manufactured still adheres to the base. The platform is a cortical surface. Wear is evident on both edges.

L) 42.9 mm W) 42.0 mm T) 9.4 mm Figure 3:C

Site 6 65° 58' 40"N; 153° 38' 40"W
 2 retouched flakes
 1 waste flake

Site 7 65° 58' 40"N; 153° 38' 24"W
 19 waste flakes
 projectile point: I.M. 7(8)

The material of this point base is black obsidian. This is a straight-based, probably lanceolate, point, collaterally flaked and basally thinned. It is lenticular in cross section and ground on both edges.

L) 15.9 mm W) 19.9 mm T) 6.3 mm Figure 3:M

projectile point: I.M. 7(9)

This point fragment is made of a fine-grained, light gray, mottled chert. The form is unidentifiable as it is the medial section of a point; the tip and base were removed as a result of

snap fractures. A wide flake scar extends longitudinally along the point and probably resulted from one of the snap fractures mentioned above. The edges have been retouched on alternate edges, that is one edge dorsally and the other ventrally. The one surface with the flaked surface intact has been collaterally worked.

L) 15.5 mm W) 24.9 mm T) 5.7 mm Figure 3:L

Site 8 65° 58' 46"N; 153° 38' 11"W

1 retouched flake

5 waste flakes

drill: I.M. 8(10)

This specimen is manufactured of black obsidian. Although it is herein classified as a drill because the tip is worked on alternate edges, some argument could be raised that it is a projectile point. A great deal of care was given to fashioning the basal portion of the specimen. The implement is straight based, has parallel edges and has been formed by taking small flakes from the edges. No flakes extend to the median line of the artifact.

L) 43.6 mm W) 18.2 mm T) 5.5 mm Figure 3:O

Site 9 65° 58' 55"N; 153° 37' 56"W

32 retouched flakes

560 waste flakes

projectile point: I.M. 9(11)

This specimen is made of a coarse-grained, dark gray chert and is bi-convex. The widest portion is nearer to the base than to the tip. The base is round and an attempt was apparently made at basal thinning. The flaking is crude, possibly due to the material. The cross section is lenticular. The tip is missing.

L) 45.1 mm W) 23.9 mm T) 8.2 mm Figure 3:I

projectile point: I.M. 9(15-16)

The material for this point is black obsidian. The specimen is in two pieces and is broken approximately in half. The two fragments have been analyzed as a composite whole. This point

is straight based, lanceolate, basally thinned, shows fine edge retouch and is collaterally flaked. The cross section is lenticular. A large thinning flake was struck from the tip, extending half way down the point. This flake was removed prior to breakage. The tip shows crushing, evidently from impact. The fracture was a snap fracture, possibly due to the point being slightly curved on the longitudinal plane. The break surface on the tip portion of the point shows some minute scars oriented perpendicular to the lateral plane of the artifact. This orientation suggests subsequent use of that fragment as a scraper or chisel.

L) 65.8 mm W 29.6 mm T) 6.1 mm Figure 3: H,N
projectile point: I.M. 9(12)

This tip fragment is made of a clear, light gray obsidian. It has been fluted on one surface from the base direction. The opposite surface is randomly, collaterally flaked. The flute was made prior to final shaping as the scars of shaping flakes obliterate the original limits of the fluting scar. The edges are finely retouched and worn.

L) 20.1 mm W) 18.5 mm T) 4.5 mm Figure 3:D

projectile point: I.M. 9(13)

The material for this specimen is a clear, light gray obsidian. It is a tip fragment displaying collateral flaking, some edge retouch and no wear.

L) 17.4 mm W) 19.5 mm T) 5.4 mm Figure 3:E

blade: I.M. 9(14)

This medial blade fragment is made from black obsidian. The cross section is prismatic. The specimen is retouched along both edges. The longest edge appears to have been deliberately retouched, the edge angle is very steep. The shorter, opposite edge appears to have been use retouched. The latter retouch is less regular and is on both dorsal and ventral surfaces. This

blade fragment was probably inset into bone or wood or else used by itself, the more finely worked edge serving as a dulled back side of a cutting blade. Both distal and proximal ends have been snapped.

L) 10.4 mm W) 1.3 mm T) 1.5 mm Figure 3:F

Site 10: 65° 59' 01"N; 153° 37' 25"W

28 retouched flakes

126 waste flakes

projectile point: I.M. 10(18)

This basal fragment is made of clear, light gray obsidian. The complete specimen was probably oblongate in form. The base is rounded with one large thinning flake struck from one surface. The opposite surface displays random, collateral flaking. The edges are ground.

L) 18.4 mm W) 19.5 mm T) 4.9 mm Figure 3:K

end scraper: I.M. 10(20)

This scraper is made of brown and black banded obsidian. A large irregular flake was utilized and one scraping edge prepared. There is some random crushing along the lateral edges.

L) 30.5 mm W) 37.8 mm T) 6.2 mm edge angle 65 Figure 3:B

biface fragment: I.M. 10(17)

This lateral edge fragment is manufactured of brown and black obsidian. It has some minor edge retouch. L) 16.5 mm W) 24.6 mm T) 13.8 mm not illustrated

biface fragment: I.M. 10(17)

This blade is made of clear, light gray obsidian. It is prismatic in cross section and missing the proximal end. There is no edge retouch but the distal end has been retouched.

L) 23.4 mm W) 6.5 mm T) 2.8 mm Figure 3:G

Site 11: 65° 59' 07"N; 153° 36' 49"W
2 waste flakes

Site 12: 66° 01' 01"N; 153° 35' 02"W
1 retouched flake
3 waste flakes

DISCUSSION

The Indian River area lies within the Athapaskan territory in Alaska, specifically within that region utilized by the Koyukon group (Osgood, 1936). No single monograph deals with the Koyukon culture as a whole, however, works by Jette, Sullivan, and Loyens treat various aspects of the modern culture (Jette, 1907, 1907-09, 1908-09, 1911, 1913; Sullivan, 1942; Loyens, 1964). Koyukon economy has been a seasonal matter, with fishing along the main rivers of primary importance in summer and early fall, while hunting has been most important in late fall (Sullivan, 1942). We have no proof that this pattern was followed in the prehistoric past but the inventory of implements collected during this survey indicates that hunting, at least, was practiced. The geographical distribution and situation of the sites seems to further indicate utilization of the sites as lookouts for spotting game. That all projectile points are broken and consist mainly of point bases indicates the sites were stations where projectiles were re-tipped following breakage.

Archaeological fieldwork in the Koyukuk area has been minimal. So comparisons of material are somewhat premature. Until the 1969 field season, the only work done was conducted by Fredrica de Laguna in 1935; this work was a survey which did not extend into the Indian River area (de Laguna, 1947). During 1969 investigations by D. W. Clark also revealed sites in the general area of the localities reported here (Clark, 1970).^{*} Although the authors have not examined the material found by

^{*} Also, see preceding paper

Clark, it apparently encompasses all the categories of implements we found near Indian Mountain including fluted points (see our site 9), straight- and round-based projectile points, and microblades. Neither party apparently found burins. In addition to the finds by Clark and ourselves, fluted points have been reported from the western Brooks Range by Humphrey (1966), Solecki (1951), and Thompson (1948), and Cook (1970: 114) discussed similar points found in the upper Sagavanirktok River drainage of the central Brooks Range. Obsidian ob lanceolate points very similar to those in our collections have been found in Band 5 of Onion Portage and have been dated at 2200-2600 B.C. by Anderson (1968:28).

The obsidian in our collections probably came from deposits existing in the lower Indian River drainage (Patton and Miller, 1970), but final verification must be based on element comparisons. The obsidian sources found by Patton and Miller are centered approximately 24 km southwest of the center of our collection area. The major portion (98%) of our obsidian corresponds in color and banding to the glass reported by Patton and Miller; the obsidian is mainly black and shows some inclusion banding along thin flake edges. Some flakes have a light gray transparency. Cortex on some specimens is heavily pitted and appears to be the original rind of perthitic fragments found in the ash described by Patton and Miller. Only 2% of the obsidian is brown and black banded glass with inclusions.

ACKNOWLEDGEMENTS

The junior author's investigations of altiplanation terraces in the vicinity of Indian Mountain have been conducted under the guidance of Dr. Troy L. Pewe, Department of Geology, Arizona State University. We are grateful for the warm hospitality of Major Lyle Lagasse and others of Utopia. Able assistance in the field was rendered by Albert E. Adams. Funding for this research was granted by U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, through the assistance of Dr. Jerry Brown, Soils Scientist. We are grateful for the helpful comments on an early draft of this manuscript by Drs. Troy L. Pewe and John P. Cook.

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