

## CHAPTER 4. GROUND STONE—*MINGURN GASQAQ*

### Alutiiq Ground Stone Industry

Grinding can be an efficient way to shape soft stone into a tool or create a cutting edge. In the Kodiak region, much of the ground stone industry focused on transforming leaves of the island's platy slate into projectile points and cutting tools. Slate is widely available and easily worked with a bit of water, sand, and a hard grinding surface (another stone) (Figure 4.1). In a short time, even a novice stone worker can create a functional tool. However, Alutiiq craftspeople also ground coal, sandstone, quartz crystals, and other stones into a variety of objects. This section of the Alutiiq Technological Inventory focuses on slate working, as slate tools are the most common ground stone objects and there is a great deal of information on slate working preserved in archaeological assemblages. However, we also describe other types of objects made through stone grinding. Particularly in the Late Kachemak tradition, a few tools later made by carving organic materials were made by grinding stone, e.g., arrows and labrets.

**Figure 4.1.** Children learning to grind slate at Dig Afognak culture camp.



It is important to note that some chipped stone artifacts exhibit grinding on the base and/or sides. For example, a crafter may have ground the bases of a projectile point to dull sharp edges for hafting. When such grinding is present, we considered it an attribute of a chipped

stone tool. The grinding is a secondary characteristic, a final manufacturing detail. However, if a ground surface is part of a tool's function—a cutting or piercing edge—then it is a ground stone tool. Here, the grinding is a primary characteristic. It is essential to the tool's use.

Slate is a platy material that is typically first reduced with bi-polar percussion. This means that a slab of slate is set against a rock and then hammered with another rock to break apart sections of material (Figure 4.2). The resulting leaves of slate are then further reduced and shaped into tools by either a saw and snap method (see below) or with a small hammerstone that is used to chip pieces off the edges. Although this technique is like flint knapping, it is not reliant on conchoidal fracture but simply on breaking the material to shape. Due to this shaping process, it is often easy to identify specific tool preforms (e.g., ulus, bayonets, end blades). An exception is points and knives, which can have similar looking preforms.

After rough shaping, slate tool preforms were ground smooth and their edges sharpened. Grinding can be done on almost any smooth, harder rock—like a beach boulder of greywacke—using some sand and water. Sandstone abraders may have been used to shape and smooth some slate tools. Hones and whetstones served as fine grinding tools for sharpening edges.

**Figure 4.2. Artifacts associated with slate tool manufacture, Kashevaroff Site (AM724).**



As slate is very common on Kodiak and it can be difficult to determine if a piece of unworked slate in a site is intended for tool making or use in construction or steam bathing. However, slate also varies a great deal in quality, and since poor quality slate was seldom used for tool manufacture unworked pieces can be discarded. Poor quality slate tends to be lighter in color and friable (it falls apart easily). This material often occurs as fire-cracked rock, especially in Kachemak sites, and may additionally display charring and reddening caused by exposure to heat. Pieces of slate that are hard, black, and cohesive tend to be rarer and found only at certain

localities. If such pieces are found in a site, they were likely transported to the location. Fragments of high-quality slate may represent raw material for tool manufacture or manufacturing debris.

### Ground Stone Through Time

Ground slate bayonets appear in ancestral Alutiiq assemblages around 6700 BP (calibrated) and are the oldest ground stone tools found on Kodiak (Table 4.1). Worked slate debitage and slate hones (rods of ground slate) appear in the archaeological record around this time as well and represent the process of slate tool manufacture—breaking and grinding slate to form smooth, sharp-edged tools. From that date forward ground stone artifacts become proportionally more common in stone tool assemblages, and the frequency of chipped stone tools decreases accordingly. Over the span of Alutiiq prehistory, slate gains increasing importance as the material for making cutting edges (Figure 4.3 and Figure 4.4), until very little chipped stone remains in assemblages (Clark 1982).

**Figure 4.3. Temporal distribution of ground stone tools**

Ground Tools	OCEAN BAY							KACHEMAK				KONIAG		
	7500	7000	6500	6000	5500	5000	4000	3500	3000	2500	2000	1500	1000	500
Bayonet														
Slate Rod Hones														
Slate Working Debris - cores & debitage														
Adze & Adze Chips														
Ground Knife														
Burin Like Tool														
Ground Point														
Ulus														
Bead														
Labret														
Chisel														
Arrow														
Endblade														
Fastener														
Pendants														
Fish Hook Barb														
Line Weight														
Carving Bit														

After the introduction of bayonets, flensing knives appear at about 6000 BP and replace chipped stone knives (hafted at the proximal end). Adzes also start to have their distal tip (working edge) ground to a sharp bevel sometime in the later Ocean Bay tradition. By the late prehistoric period adzes are completely ground. At about 4,000 years, at the start of the Early Kachemak tradition, another set of changes occurs. Ground slate ulus replace chipped stone side blades, and ground carving tool bits and ground stone lance heads appear. Early ground slate lance heads are shaped much like their chipped stone equivalents—with triangular blades and small square stems. In the Koniag tradition, craftspeople made triangular slate end blades that were beveled down the center and thinned around the central base for insertion into fixed harpoons and arrows.

Ocean Bay Tradition slate grinding is characterized by saw and snap technology, especially for bayonet manufacture. This manufacturing technique is preserved in slate debitage (Figure 4.5). Presumably craftspeople used a cobble spall to score parallel lines into a thin leaf of slate. Then the slate leaf was snapped along the lines (much like breaking apart the segments of a Hersey Bar) to create long slender pieces of material for creating bayonets. Another diagnostic

of early slate grinding is coarse, almost scratched grinding marks on the surface of ground slate tools and preforms. Later in time grinding marks are finer and more uniform. Ocean Bay craftspeople seem to have used coarser grinding material than later people.

**Figure 4.4. Examples of ground stone artifacts.**



Saw and snap technology and bayonets are common finds in Ocean Bay Tradition sites (Clark 1982), and almost never found in later era sites. Yet this technology persists till the Koniag tradition. However, it was a technology associated with whalers and seems to have been only used away from the main villages. But at whaling villages and places presumably used by whalers you do find evidence for saw and snap bayonet production in the late prehistoric period (Cape Alitak, Kashevaroff Site, Kiliuda Bay).

**Figure 4.5. Examples of slate worked through the saw and snap technique to create bayonets.**





**Table 4.1. Alutiiq terms for ground stone tools**

English	Alutiiq	Comment
Adze - planing	StRuusaq <sup>m</sup>	
Adze Chip	Ciqllautem ilakua'a*	
Arrow	Ruuwaq <sup>m</sup>	Term used for both point and entire arrow
Bayonet	Kapsuun*	“thing to stab with”
Bead	Pinguaq <sup>m</sup>	
Burin-like-tool		
Carving Bit	Canasuun*	“tool to make things with”
Chisel	Kaputaq <sup>m</sup>	
Disk		
End Blade	Iquq <sup>m</sup>	
Fastener	Puukicaaq <sup>m</sup>	
Fishhook Barb	Iqsam iqua <sup>m</sup>	
Fish Lure	Narya'aq <sup>m</sup>	
Ground Knife	Nuusiq <sup>m</sup>	
Ground Point	Ipegca'imasqaq iquq <sup>c</sup>	
Ground Fragment	Miilimasqaq llakuaq*	
Labret	Qukaciq <sup>h</sup> , Qerllum mallarsuutii <sup>c</sup> , Kulut'ruaq <sup>m</sup>	Kulut'ruaq = “kind of a ring”
Line Weight	Kicauteq <sup>m</sup> Kitsuuteq <sup>c</sup>	“something to be used as an anchor” “sinking tool”
Nose Pin	Pacii ruam kulutrua'a <sup>c</sup> , maitaq <sup>h</sup>	
Pendant	Uyamillkuaq <sup>m</sup>	Related to the work uyaquq meaning neck
Slate Core	Qukaa <sup>c</sup>	"It's middle/center", for any type of core
Slate Rod Hone	Ipegca'isuuteq <sup>c</sup> , Ip'gca'isuun <sup>c</sup>	“something to make an edge”
Ulu	Ulukaq <sup>m</sup>	
Worked Slate Fragment	Ipegyalleg*	“old slate”

m = term in modern usage, h = historic term, c = term created by Elder Alutiiq speakers

\* = suggested term needing additional review

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Adze (planing)		<b>Alutiiq Names</b>	StRuusaq	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Building/Woodworking	<b>Function</b>	Thinning and shaping wood
<b>Common Materials</b>	Schist, Greenstone				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input checked="" type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Uyak Site, Old Karluk, Karluk One, Settlement Point, and many others		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>Adzes are a common tool throughout the prehistoric sequence, although their manufacture and size change over time. Prior to ca. 4000 BP adzes were flaked to shape with steep edge angles at the distal end. This tool type is described in the chipped stone tool industry as they are not typically ground. Later in time, adzes exhibit more and more grinding until they are often almost entirely ground. The first ground adzes are generally only ground on the 'flat' plane and the steep edge is unifacially flaked. Later in time both intersecting planes are ground and tend to have less steep cutting edge angles. Koniag tradition adzes are almost exclusively made from greenstone and they are substantially larger than earlier Kachemak examples.</p> <p>Adzes have a distinctive trapezoidal shape with a cutting edge at the distal end. This edge is formed by two intersecting planes. One of the planes is parallel to the longitudinal plane of the piece (flat), while the other meets the cutting edge at a steep angle. The cutting edge is generally fairly straight and perpendicular to the longitudinal plane of the adze, but some have a gently curved cutting edge.</p> <p>Adzes vary most according to their cutting edge angles. Some years ago a Maori carver visited Kodiak and showed us his nephrite carving adzes. He had many different types varying in the size and the shape of the cutting edge. Each had a special purpose. He briefly examined the adzes in the Karluk One collection and suggested Alutiiq carvers also relied on a multitude of adze types. In general, however, Koniag adzes fall into two categories based upon the angle of their cutting edge. For unifacial adzes one of the planes is largely parallel to the longitudinal plane of the piece (flat), while the other is steep and forms the cutting edge. This cutting edge is generally straight and perpendicular to the longitudinal plane of the adze.</p> <p>The other category of adze is more axe-like. This type has a cutting edge formed by two intersecting ground planes, neither of which is parallel to the longitudinal plane. The cutting edge on these pieces is also often curved rather than straight and does not appear appropriate for planing flat segments of wood. This tool may have been used to shape wooden objects.</p> <p>Worn out adzes were often used as hammerstones or wedges, based on patterns of heavy battering on different areas of the expended tool.</p>				
<b>References</b>	Knecht, Richard A. 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.				
<b>Last Update</b>	05/29/2021		<b>Updated By</b>	Amy Steffian	

Alutiiq Technological Inventory—Ground Stone Tools

ADZE



Kachemak tradition adzes from Old Karluk (AM258), mostly made of schist.



Koniag tradition adzes preforms from Karluk One (AM193), chipped to shape but not yet ground.

Alutiiq Technological Inventory—Ground Stone Tools



Koniag tradition adzes from Karluk One (AM193) – top and cutting edge views





# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

**English Names**  **Alutiiq Names**

**Industry**  **Activity**  **Function**

**Common Materials**

**LxWxD (cm)**

**Tradition**  Ocean Bay  Kachemak  Koniag  Alutiiq

**Miniature**  Yes  No/Unknown **Example Sites Found**

**Description**

Chipped flakes exhibiting evidence of grinding are classified as adze chips, and reflect either damage sustained by the impact of woodworking or the refurbishing of woodworking tools. Adze chips differ from ground fragments in that adze chips are usually a cryptocrystalline material (greenstone) and have been conchoidally flaked while ground fragments are usually slate and are fragments that have broken off a flat piece of ground material. Adze flakes are generally small and range in weight from 0.1 g to around 6g. Like the adzes, they are primarily made of greenstone.

**References**

**Last Update**

**Updated By**

Alutiiq Technological Inventory—Ground Stone Tools

ADZE CHIP



Adze chips from KOD-1362 (AM934) – not grinding on the right side.



Adze chips from Old Karluk (AM258) and Zaimka Mound (AM411).



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Arrow	<b>Alutiiq Names</b>	Ungaluq
<b>Industry</b>	Ground Stone	<b>Activity</b>	Hunting
		<b>Function</b>	Bird hunting
<b>Common Materials</b>	Slate		
<b>LxWxD (cm)</b>			
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag <input type="checkbox"/> Alutiiq
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Uyak Site, AFG-004
	<input checked="" type="radio"/> No/Unknown		
<b>Description</b>	<p>Arrows are typically thought of as an artifact associated with the bone tool industry. However, on occasion, (e.g., in Late Kachemak tradition assemblages) they are ground out of slate. In all regards these stone arrows are close facsimiles of their bone counterparts and may even incorporate decorative elements such as longitudinal incised lines.</p> <p>These tools typically have a long, cone-shaped body and a thin, cylindrical stem. The distal end (point of the arrow is often rounded (blunt), perhaps for bird hunting and limiting damage to a bird pelt. The bases are delicate, and often broken off.</p>		
<b>References</b>	This manual.		
<b>Last Update</b>	05/23/2021	<b>Updated By</b>	Amy Steffian

Alutiiq Technological Inventory—Ground Stone Tools

ARROW



Slate arrows from the Uyak site (AM3), Pestrikof Family Collection, (AM330), and an Afognak River survey (AM343)



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Bayonet / Lance		<b>Alutiiq Names</b>	Kapsuun	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Hunting	<b>Function</b>	Stabbing
<b>Common Materials</b>	Slate				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input checked="" type="checkbox"/> Ocean Bay	<input type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Rice Ridge, Sitkalidak Roadcut, Zaimka Mound; Outlet, Kashevarof, Amak, Salonie Mound and many others		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>Bayonets are long ground slate projectiles with largely parallel sides and a thin oval cross section. Their length, unique manufacturing process (saw and snap), and the common attributes suggest they are a distinct group of projectiles - separate from smaller more triangular ground slate points. Bayonets may also show distinctive use wear— battering from colliding with river cobbles when used use as fish spears.</p> <p>Common attributes associated with bayonets include (1) course, OBI grinding/scratching on the surface, (2) barbs along the edges of the blade, (3) a medial ridge, (4) side notching, (5) bilateral serration (usually just above the stem), (6) longitudinal incised grooves up the center of the blade, (7) horizontal "snap" grooves, and occasionally (7) some decorative incised designs. The serrations and incised lines probably induced blood flow and decreased wound suction in the victim of a bayonet strike. The blade would have had an easier time moving through flesh because of the decreased suction.</p> <p>There are a variety of bayonet types based on shape and stem type but also overall shape, but a careful study of many pieces is needed to refine these types. For example, some of the late Ocean Bay examples (e.g., Amak and Kashevaroff site) do not have parallel sides and at only 10 cm. or so long are a little shorter than most bayonets, but they were still clearly used to hunt sea mammals and have a "bayonet-like" stems.</p> <p>The distinguishing characteristic of bayonet preforms is their long shape with parallel sides. These pieces of slate represent the middle stages of bayonet manufacturing. Bayonet preforms can be classified according to their stages of manufacture. Stage 1 represents pieces that have not been ground but are chipped to shape. Stage 2 represents pieces that have been "sawn and snapped" into the correct shape but not further modified. Stage 3 represents specimens that have been further ground to shape but not finely finished. Stage 4 represents almost finished bayonets; these pieces are finely ground and lack only final sharpening of the edges. Note that Stage 1 and 2 represent the same stage of manufacture but different techniques.</p>				
<b>References</b>	Clark, D. W., 1979, Ocean Bay: An Early North Pacific Maritime Culture. Archaeological Survey of Canada, Mercury Series, Paper 86. National Museum of Man, Ottawa.				
<b>Last Update</b>	05/29/2021		<b>Updated By</b>	Amy Steffian	

Alutiiq Technological Inventory—Ground Stone Tools

BAYONET



Bayonet preforms from AFG-011 (AM655) and the Kashevaroff site (AM724)

Alutiiq Technological Inventory—Ground Stone Tools



Bayonets from the Kashevaroff site (AM724)

Alutiiq Technological Inventory—Ground Stone Tools



Bayonets from Rice Ridge (AM19).



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Bead		<b>Alutiiq Names</b>	Pinguag	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Adornment	<b>Function</b>	Decoration
<b>Common Materials</b>	Sate, coal, baked shale				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input checked="" type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Karluk One, Igvak, Uyak		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>Beads are ornamental objects with a hole in the middle that are made to be threaded onto a string or sewn to clothing. Pendants differ from beads in that they are more of an object in and of themselves and are made to serve alone and not as a part of a whole. Pendants are also designed to hang.</p> <p>Alutiiq beads are made out of a variety of organic and inorganic materials (fish bone, stone, clay, shell, wood, antler, etc.), but only the beads made out of ground stone are considered here. Stone beads are not a very common but they are often highly polished. It is not clear how craftsmen drilled the central hole, but it was likely with a stone bit of some kind.</p> <p>There are several distinct styles of stone beads - tubes, circles, and grooved. The tubular ones are often made of red shale. The circular ones, which resemble a Cheerio, are often made of slate or coal. A few are jellybean shaped and grooved all the way around the long axis.</p>				
<b>References</b>	Steffian, Amy F., 1992a, Archaeological Coal in the Gulf of Alaska: A View from Kodiak Island. Arctic Anthropology 29(2):111-129.				
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Alutiiq Technological Inventory—Ground Stone Tools

BEADS



Coal Beads



Slate Bead

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Burin-like tool	<b>Alutiiq Names</b>	Igagliruaq
<b>Industry</b>	Ground Stone	<b>Activity</b>	Building/Woodworking
		<b>Function</b>	Carving
<b>Common Materials</b>	Metatuff, greenstone		
<b>LxWxD (cm)</b>			
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input type="checkbox"/> Kachemak	<input type="checkbox"/> Koniag
			<input type="checkbox"/> Alutiiq
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Horseshoe Cove, Chirikof, Malina, Blisky, KOD-605, Rice Ridge, Karluk One
	<input type="radio"/> No/Unknown		
<b>Description</b>	<p>Burin-like tools are an uncommon but widespread find in Early Kachemak sites in the Kodiak region. archipelago. They are typically made on a spotted beige metatuff. They are a chipped stone tool that has been ground on intersecting planes to form a robust 90 degree corner on one edge. Four different planes are ground flat both parallel and at right angles to form the corner—both sides and front and then the top (distal end). There is often a unifacial notch on the proximal end just below the ground front. They were probably hafted with the gourd side facing out at the leading edge of a handle, much like the carving tools of late prehistoric/early historic times that have a piece of metal or copper inserted in the same place.</p>		
<b>References</b>	This manual		
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Alutiiq Technological Inventory—Ground Stone Tools

BURIN-LIKE TOOL



Burin-like tool from Zaimka Mound (AM411)





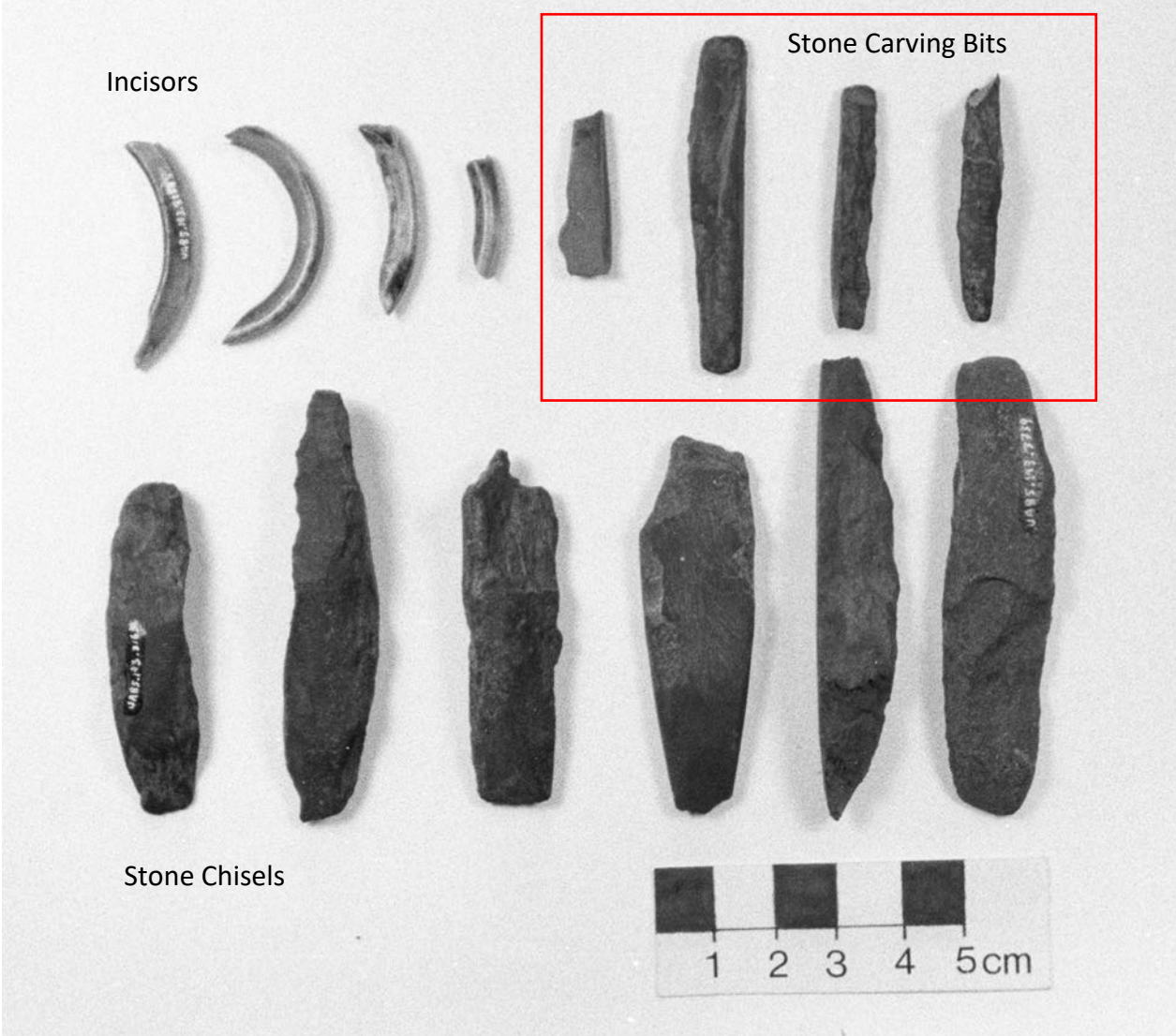
# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Carving Bit	<b>Alutiiq Names</b>	Canasuun		
<b>Industry</b>	Ground Stone	<b>Activity</b>	Building/Woodworking	<b>Function</b>	Fine detail carving
<b>Common Materials</b>	Schist, greenstone				
<b>LxWxD (cm)</b>	2 to 6 cm				
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Karluk One		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>The carving bits of Alutiiq wood carving tools were generally made from imported marmot or beaver incisors. However, on occasion craftsmen created fine carving bits from pieces of a very hard stone. These tools were chipped to shape and then ground. Some look like tiny adze. Others resemble the carving bits made from rodent incisors. These carving bits superficially resemble throwing board pins but are much sharper.</p>				
<b>References</b>	Knecht, Richard A., 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.				
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Alutiiq Technological Inventory—Ground Stone Tools

CARVING BITS





# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Chisel	<b>Alutiiq Names</b>	Kaputaqm
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<b>Industry</b>	Ground Stone	<b>Activity</b>	Building/Woodworking	<b>Function</b>	Fine carving
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<b>Common Materials</b>	Slate
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<b>LxWxD (cm)</b>	1 x 5 cm
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<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq
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<b>Miniature</b>	<input checked="" type="radio"/> Yes	<b>Example Sites Found</b>	Uyak site
	<input type="radio"/> No/Unknown		

<b>Description</b>	<p>Chisels are basically tiny adzes, but they are generally much thinner and exhibit a low angled (sharper) cutting edge. The bit end can be either sharpened from both sides or steep with just one side sharpened at an angle to one flat side. Most chisels are made from slate rather than greenstone. Beyond the ground bit end chisels tend to exhibit no other grinding and often look otherwise as a simple pieces of slate. They tend to be rectangular in shape and small – 1 to 2 cm wide and less than 5 cm long. Their function is unknown, but fine wood working seems likely. Some may also represent miniature / toy adzes.</p> <p>Note: Knecht 1995 includes these tools with carving bits. We suggest they are distinct tool classes with a similar function.</p>
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<b>References</b>	This manual.
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Alutiiq Technological Inventory—Ground Stone Tools

CHISEL



Chisels from the Uyak Site (AM3)



Chisels from Karluk One (AM193)



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

**English Names**  **Alutiiq Names**

**Industry** Ground Stone **Activity** Gaming **Function**

**Common Materials**

**LxWxD (cm)**

**Tradition**  Ocean Bay  Kachemak  Koniag  Alutiiq

**Miniature**  Yes  No/Unknown **Example Sites Found**

**Description**

These are small, circular artifacts of ground stone - ranging from about penny to quarter size. Like of the ground tools, they appear to be chipped to shape and then ground all over to form a circular disk. Their function is unknown, but they might be gaming pieces, but they do not occur in large numbers like later gaming pieces. They could be part of some composite tool.

**References**

**Last Update**

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Alutiiq Technological Inventory—Ground Stone Tools

CHISEL



Ground stone disks from Old Karluk (AM258)



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Endblade	<b>Alutiiq Names</b>	Iquq
<b>Industry</b>	Ground Stone	<b>Activity</b>	Hunting
		<b>Function</b>	Tipping and arrow
<b>Common Materials</b>	Slate, metatuff		
<b>LxWxD (cm)</b>	Up to 8 cm long and 2.5 cm wide.		
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag <input type="checkbox"/> Alutiiq
<b>Miniature</b>	<input checked="" type="radio"/> Yes	<b>Example Sites Found</b>	Karluk One, Settlement Point, Rolling Bay, Refuge Rock, Kumluk
	<input type="radio"/> No/Unknown		
<b>Description</b>	<p>These relatively small, roughly triangular pieces of ground slate are designed to fit in the tip of a carved arrow - to arm it with a sharp point. They are typically ca. 8cm long or less, although a very large example (hand-sized) was recovered from the Crag Point site. Elsewhere in the Arctic, end blades tip harpoons, but Koniag harpoons lack a slot for this type of hafting. However, Koniag arrows sometimes have a slot for an end blade.</p> <p>Many, but not all, end blades have a ridge running up surface of the face of the tool. Often, the lower half of an end blade was ground on both sides to thin it for hafting. This removed the lower (proximal) end of the ridge and creates a facet appearance. The base of these tools is either gently concave or straight.</p> <p>Ground slate end blades are temporally associated with the Koniag Tradition. A miniature example was found at KAR-310 on Karluk Lake. It is possible that miniatures are actually small tips for slotted arrow points or harpoons.</p>		
<b>References</b>	Knecht, Richard A., 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.		
<b>Last Update</b>	05/29/2021	<b>Updated By</b>	Amy Steffian

Alutiiq Technological Inventory—Ground Stone Tools

END BLADES



End blades from Settlement Point



End blade from the Kumluk site (AM711)

Alutiiq Technological Inventory—Ground Stone Tools



End Blades from Karluk One (AM193)

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Fishhook Barb	<b>Alutiiq Names</b>	Iqsam iqua
<b>Industry</b>	Chipped Cobble	<b>Activity</b>	Building/Woodworking
		<b>Function</b>	Hooking a fish
<b>Common Materials</b>	Slate		
<b>LxWxD (cm)</b>	4 to 6 cm long		
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input type="checkbox"/> Koniag <input type="checkbox"/> Alutiiq
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	
	<input type="radio"/> No/Unknown		
<b>Description</b>	<p>Fish hook barbs (part of a composite marine fishing hook lashed to a shank) are generally made of carved and ground bone or wood. Sometime, especially in Late Kachemak era sites, pieces were ground from slate. They are shaped exactly like their organic counterparts. The hook is a short crescent shaped with a barb at the tip (distal end) on the inside of the curve.</p> <p>Late Kachemak hook barbs often have a finely finished base with a flange or encircling groove to aid in attaching the to a hook shank (Heizer 1956:Plate 61; de Laguna 1934:Plate 43). Koniag hook barbs tend to be more simply made without a finished base (Knecht 1995 Plate 14; Clark 1974a:Plate 1; 1974b:Plate 14).</p>		
<b>References</b>	Knecht, Richard A. 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.		
<b>Last Update</b>	05/29/2021	<b>Updated By</b>	Amy Steffian



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

**English Names**  **Alutiiq Names**

**Industry**  **Activity**  **Function**

**Common Materials**

**LxWxD (cm)**

**Tradition**  **Ocean Bay**  **Kachemak**  **Koniag**  **Alutiiq**

**Miniature**  **Yes**  **No/Unknown** **Example Sites Found**

**Description**

**References**

**Last Update**

**Updated By**



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

**English Names**  **Alutiiq Names**

**Industry**  **Activity**  **Function**

**Common Materials**

**LxWxD (cm)**

**Tradition**  Ocean Bay  Kachemak  Koniag  Alutiiq

**Miniature**  Yes  No/Unknown **Example Sites Found**

**Description**

Alutiiq craftspeople created miniature fish from bone, ivory, and stone. A few of examples, particularly from Late Kachemak assemblages, are made of ground stone carefully shaped like a salmon and carved with anatomical details—gills, mouth, eyes. These pieces include a small hole for attaching a line.

Ethnographic sources suggest these little lures were suspended through holes in the ice to attract fish that were speared with a leister.

**References**

Knecht, Richard A. 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.

**Last Update**

**Updated By**



Alutiiq Technological Inventory—Ground Stone Tools

FISH LURE



Ground stone fish lure from Old Karluk (AM258)



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Ground Knife	<b>Alutiiq Names</b>	Nuusiq
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<b>Industry</b>	Ground Stone	<b>Activity</b>	Cooking/Storage	<b>Function</b>	Processing fish & game
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<b>Common Materials</b>	Slate
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<b>LxWxD (cm)</b>	
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**Tradition**  Ocean Bay  Kachemak  Koniag  Alutiiq

<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Rice Ridge, Old Kiavak, Karluk One, Outlet site
	<input checked="" type="radio"/> No/Unknown		

<b>Description</b>	<p>Ground knives are characterized by two sharpened edges (each side), a rounded tip and broad blade. Clark (1979:157 and plate 16 (B,C)) terms these pieces flensing blades. They are commonly referred to as flensing knives. Double edged knives differ from ground points in that they (1) tend to be broader (not lancelet), (2) have rounded tips, (3) have curved rather than straight edges, and (4) have a flat rather than lozenge-shaped cross section. Double-edged knives differ from ulu knives in that they have two sharpened edges and were hafted to a stem, like a projectile point. Ulu are set into a handle that is parallel to the blade while the blade of a double-edged knife extends parallel but out from a handle – like a conventional sword to its hilt.</p> <p>Ground slate knives are also frequently re-sharpened and this often results in a change of shape. The tips become more rounded and there is often a curve inward right above the haft. This is because handle of the piece prevented the removal of stone nearer the handle but not out further towards the tip. Slate knives were also frequently asymmetrically shaped as one side was sharpened more frequently.</p> <p>Ground knives fall into three general categories according to how they were hafted: (1) knives with no stem hafted through multiple drilled holes in an otherwise broad, plain base, (2) knives with plain flat base, and (3) knives with a stemmed base.</p>
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<b>References</b>	<p>Clark, Donald, W., 1997, The Early Kachemak Phase on Kodiak Island at Old Kiavak. Archaeological Survey of Canada, Mercury Series, Paper 155. Canadian Museum of Civilization, Hull.</p> <p>Knecht, Richard A., 1995, Nunakakhnak: A Historic Period Koniag Village in Karluk, Kodiak Island,</p>
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<b>Last Update</b>	05/29/2021	<b>Updated By</b>	Amy Steffian
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Alutiiq Technological Inventory—Ground Stone Tools

GROUND KNIFE



Ground knives with different hafting methods – stemmed (left), drilled (right)



Alutiiq Technological Inventory—Ground Stone Tools

Koniag tradition ground knives from Karluk One (AM193)



Ocean Bay tradition ground knives from Old Kiavak (AM597) and Rice Ridge (AM19)

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Ground Point		<b>Alutiiq Names</b>	Ipegca'imasqaq iquq	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Hunting	<b>Function</b>	Lance for stabbing
<b>Common Materials</b>	Slate				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input checked="" type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input checked="" type="radio"/> Yes	<b>Example Sites Found</b>	Nayurwik Site, Uyak Site, Settlement Point		
	<input type="radio"/> No/Unknown				
<b>Description</b>	<p>Ground points differ from bayonets in that they do not have parallel edges, they are triangular and have a sharp point at the distal end ( unlike ground knives which are rounded). Ground points generally have a narrow symetrical blade – not like a knife blade which is broad and often asymetrical. Ground points also tend to be small - a size designed to tip arrows or lances.</p> <p>Point styles change over time, as illustrated in the pictures below. The older ground points, associated with the Ocean Bay tradition, are leaf-shaped tools, much like their chipped stone counterparts. In the Kachemak tradition small points with a carefully squared stem and small tangs (except for one variety dubbed “Three Saints Bay” which has dramatic rectangular tangs). In the Koniag tradition, ground points tend to be long and narrow with a pronounced medial ridge.</p> <p>Ground point preforms are recognized by their distinctive lancelet shape, and unlike knife preforms they tend to be narrow and symetrical than broad and rounded. Ground Point preforms vary a great deal in size from under 5 cm to 15 cm in length representing the variety of finished point types. Ground points are usually made of slate, but silicified slate, greenstone and other hard, fine grained metamorphic rocks were also used (particularly in the Early Kachemak tradition).</p> <p>Preforms are classified according to their stage of manufacture and whenever possible by intended point type. However, it was often difficult to determine the intended end product – especially in performs at an early stage of manufacture. The stages of manufacture are: Stage 1, chipped to shape with no grinding; Stage 2, shaped and ground; Stage 3, nearly finished.</p>				
<b>References</b>	<p>Clark, Donald, W., 1997, The Early Kachemak Phase on Kodiak Island at Old Kiavak. Archaeological Survey of Canada, Mercury Series, Paper 155. Canadian Museum of Civilization, Hull.</p> <p>Knecht, Richard A., 1995, Nunakahnak: A Historic Period Koniag Village in Karluk, Kodiak Island, Alaska. Arctic Anthropology 22(2):17–35.</p>				
<b>Last Update</b>	05/29/2021		<b>Updated By</b>	Amy Steffian	

Alutiiq Technological Inventory—Ground Stone Tools

GROUND POINT



Ocean Bay tradition leaf-shaped ground point from the Nayurwik Site (AM711)



Kachemak tradition ground point from the Uyak Site (AM3)



Alutiiq Technological Inventory—Ground Stone Tools



Kachemak tradition ground point from the Kiavak Site (AM3)—Three Saints Bay style



Koniag tradition medial ridge ground point from Settlement Point (AM33)

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Labret	<b>Alutiiq Names</b>	Qerllum mallarsuutic, Kulutruaq
<b>Industry</b>	Ground Stone	<b>Activity</b>	Adornment
		<b>Function</b>	Jewelry
<b>Common Materials</b>	Coal, slate, limestone, sandstone		
<b>LxWxD (cm)</b>			
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag <input type="checkbox"/> Alutiiq
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Uyak site, Old Karluk, Karluk One
	<input checked="" type="radio"/> No/Unknown		
<b>Description</b>	<p>Labrets are a type of jewelry worn through a hole, or several holes, pierced in the face. They first appear in Kodiak assemblages about 2500 years ago, during the Late Kachemak tradition and are commonly through the Koniag tradition. They are uncommon in historic assemblages as they disappeared after contact.</p> <p>Labrets come in many shapes, sizes and material- both organic and inorganic. Stone examples are often made of coal, although limestone and slate were also used. Many are shaped a bit like a top hat and others like a pulley. All have a decorative end (distal) that sticks through the lip or cheek and is visible on the face, as well as a proximal end that rests inside the mount against the cheek. Sometimes the proximal end is flared (has a broad flange) to keep the piece in the mouth (e.g., top hat styles). Other times there is a groove between in distal and proximal sides to accomodate the cheek.</p> <p>Ground stone collections also include labret preforms roughly shaped piece not yet ground to a fine finish.</p> <p>Labrets are often show on faces decided in petroglyphs, masks, dolls, and incised pebbles.</p>		
<b>References</b>	Steffian, Amy F., and Patrick G. Saltonstall, 2001, Markers of Identity: Labrets and Social Organization in the Kodiak Archipelago. Alaska Journal of Anthropology 1(1 & 2):1-27.		
<b>Last Update</b>	05/31/2021	<b>Updated By</b>	Amy Steffian

Alutiiq Technological Inventory—Ground Stone Tools

LABRETS



Coal, slate, ivory, and bone labrets from Settlement Point (AM33).



Coal and slate labrets from AFG-004



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Line Weight / Jig Weight		<b>Alutiiq Names</b>	Kicauteq, Kitsuuteq	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Fishing	<b>Function</b>	Line weight
<b>Common Materials</b>	Slate, sandstone				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Outlet site, Karluk One, Settlement Point		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>A variety of small, minimally modified stones appear to be simple line weights for jigs. These tend to be oblong pebbles with a ground groove around one end for attaching the line. Sometimes this groove creates a knob.</p> <p>The Yup'ik used such weights to help jig for small fish (Nelson) and similar pieces from the Alaska Commercial Company Collection at the Hearst Museum (Graburn et al 1996 Plates 234 -236) demonstrated how the fishing line was set into the groove and tied in place on the line with the hook dangling below. Most of the line weights of this type from Kodiak are made of bone (Knecht 1995:189 plate 22 a-b; Saltonstall 1997; Clark 1974 plate 23 s-t) and have a knob at the end of the groove where line could be wrapped to secure the line onto the weight. However, a few stone jig weights have also been found. Clark (1974:plate 23 v) pictures a rod with a groove around one end that looks like it would have worked like a plummet, and a similar piece was found in the Early Kachemak component at Zaimka Mound. Perhaps the best example comes from the settlement Point site and is made from slate with a slot for the line running the length of the piece with an encircling line to facilitate securing the weight onto the line.</p> <p>The example from the Outlet site is a small ovoid piece of sandstone that has been carefully ground to shape on all surfaces. It is encircled around the long axis with a groove around .25 cm deep. Unlike other stone jigs from Kodiak it lacks a knob or groove at either end to secure it to the line, and the groove extends all around the piece – not just down one side. Nonetheless, if the fishing line was wrapped all the way around the piece then there would have been no need for a knob or encircling groove.</p> <p>Another type of line weight, found at Karluk One, is a small greywacke pebble with a natural hole through the center. The hole has a lining of birch bark to help secure a line.</p>				
<b>References</b>	Knecht, Richard A., 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.				
<b>Last Update</b>	05/31/2021		<b>Updated By</b>	Amy Steffian	

Alutiiq Technological Inventory—Ground Stone Tools

LINE WEIGHT



Greywacke pebble from Karluk One with a natural hole through the center and a lining of birch bark.

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Nose Ring		<b>Alutiiq Names</b>	Paciiruam kulutrua'a, maitaq	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Adornment	<b>Function</b>	Decorative (for clothing?)
<b>Common Materials</b>	Coal, red shale, slate				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Old Karluk, Aleut Town, Crag Point		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>Artifacts reflecting personal adornment are common in the last 2000 years of Alutiiq history. There are a variety of nose ornaments, typically made of wood. However, a distinctive type of nose ring is found in Late Kachemak assemblages is made of ground stone. These rings are small, crescent-shaped and taper in thickness (thin) toward a narrow opening that fits snugly over the nasal septum. These pieces would have sit closely against the upper lip and did not require any piecing to wear (as later forms seem to have).</p>				
<b>References</b>	Steffian, Amy F., 1992a, Archaeological Coal in the Gulf of Alaska: A View from Kodiak Island. Arctic Anthropology 29(2):111–129.				
<b>Last Update</b>	09/26/2021		<b>Updated By</b>	Amy Steffian	



Alutiiq Technological Inventory—Ground Stone Tools

NOSE RING



Coal nose ring from Old Karluk (AM258)



Red shale nose rings from AFG-004

# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

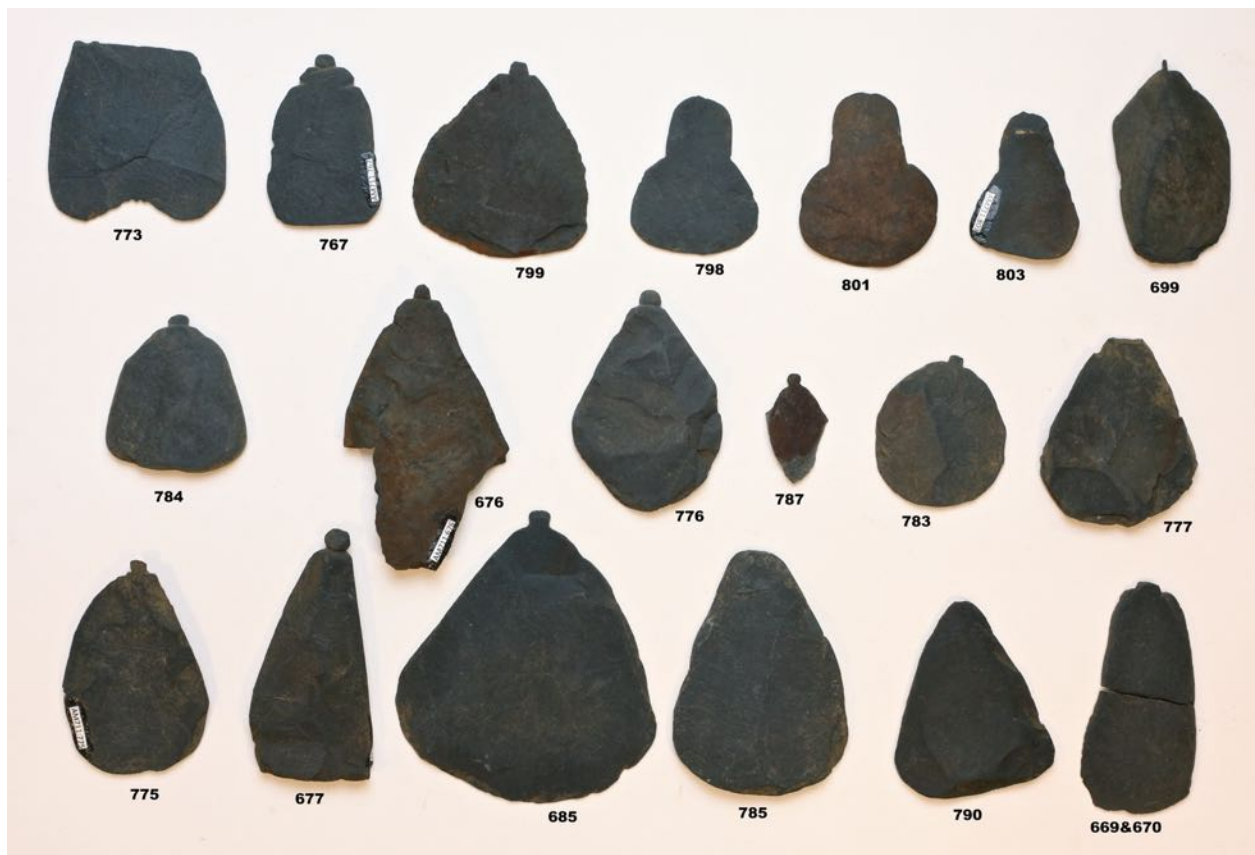
<b>English Names</b>	Pendant		<b>Alutiiq Names</b>	Uyamillkuaq	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Adornment	<b>Function</b>	Decorative (for clothing?)
<b>Common Materials</b>	Slate				
<b>LxWxD (cm)</b>					
<b>Tradition</b>	<input type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Kumluk		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>Artifacts reflecting personal adornment are common in the last 2000 years of Alutiiq history. Pendants are among the items that may have been worn as jewelry or used to decorate clothing (akin to the way puffin beaks were used on clothing?). Two types of ground stone pendants are recorded in Kodiak sites, but others may be present given the diversity of adornment objects .</p> <p>At the Kumluk site, archaeologists found more than two dozen thin leaves of slate chipped to shape and roughly ground to an oval, pear, or tear shape. One has a small drilled hole in the narrow end. The others have a small knob at the narrow end. the knobs are delicate and a number are broken off. Most are ground flat on both surfaces and the edges. One preform is not ground.</p> <p>Another type of pendant is a small rod of slate ground smooth with a hole in the top.</p>				
<b>References</b>	Steffian, Amy F., and Patrick G. Saltonstall, 2014, Prehistoric Settlements of the Midway Bay Peninsula, Old Harbor, Alaska. Report prepared for the Old Harbor Native Corporation. Alutiiq Museum and Archaeological Repository, Kodiak.				
<b>Last Update</b>	05/31/2021		<b>Updated By</b>	Amy Steffian	

Alutiiq Technological Inventory—Ground Stone Tools

PENDANTS



Pendants from the Kumluk Site (AM711)— left: drilled; below: knobbed.





# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Slate Core	<b>Alutiiq Names</b>	Qukaa—It's Middle / Center
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<b>Industry</b>	Ground Stone	<b>Activity</b>	Manufacturing	<b>Function</b>	Debitage
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<b>Common Materials</b>	Slate
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<b>LxWxD (cm)</b>	
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<b>Tradition</b>	<input checked="" type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq
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<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	
	<input checked="" type="radio"/> No/Unknown		

<b>Description</b>	<p>Slate cores are to the slate working industry what flake cores are to the flaked stone industry, and cobble cores to the cobble industry. By definition slate cores are pieces that show evidence of reduction. However, such cores are not necessarily worked into a preform. Usually they are large slate cobbles that have been battered and show some evidence of reduction or attempt at reduction.</p>
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<b>References</b>	This manual.
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<b>Last Update</b>	05/31/2021	<b>Updated By</b>	Amy Steffian
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# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Slate Rod Hone		<b>Alutiiq Names</b>	Ipegca'isuuteq, Ip'gca'isuun—something to	
<b>Industry</b>	Ground Stone	<b>Activity</b>	Manufacturing	<b>Function</b>	Hone for sharpening slate tools
<b>Common Materials</b>	Slate				
<b>LxWxD (cm)</b>	ca. 10 cm long				
<b>Tradition</b>	<input checked="" type="checkbox"/> Ocean Bay	<input checked="" type="checkbox"/> Kachemak	<input checked="" type="checkbox"/> Koniag	<input type="checkbox"/> Alutiiq	
<b>Miniature</b>	<input type="radio"/> Yes	<b>Example Sites Found</b>	Outlet site		
	<input checked="" type="radio"/> No/Unknown				
<b>Description</b>	<p>One distinctive type of hone is a long, narrow rod of slate. They are like fat pencils and some have a sharp tip (possible for use as an awl), while others are rounded at the distal end. These appear to be hones. Most have multiple, ground facets along their length, suggesting their use as a tool for sharpening the edge of slate objects. These were probably for fine finish work, given their size and the soft, fine-grained nature of the slate. In addition to facets that follow the length of the rod, some have striations perpendicular to the length of the tool showing use wear.</p> <p>It's not clear whether these were purposefully ground, or whether long narrow pieces of slate were selected for use as hones and became ground through use. At least some appear purposefully shaped.</p> <p>The tools are widespread in the Kachemak and Koniag traditions, but they are also among the tools found in early ground slate assemblages found in the Ocean Bay tradition.</p>				
<b>References</b>	Clark, Donald, W., 1997, The Early Kachemak Phase on Kodiak Island at Old Kiavak. Archaeological Survey of Canada, Mercury Series, Paper 155. Canadian Museum of Civilization, Hull.				
<b>Last Update</b>	05/31/2021		<b>Updated By</b>	Amy Steffian	

Alutiiq Technological Inventory—Ground Stone Tools

SLATE ROD HONES



Slate rod hones from Karluk One (AM193)





# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

<b>English Names</b>	Ulu	<b>Alutiiq Names</b>	Ulukaq
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<b>Industry</b>	Ground Stone	<b>Activity</b>	Cooking/Storage	<b>Function</b>	Cutting and filleting
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<b>Common Materials</b>	Slate
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<b>LxWxD (cm)</b>	
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**Tradition**    Ocean Bay    Kachemak    Koniag    Alutiiq

<b>Miniature</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No/Unknown	<b>Example Sites Found</b>	Uyak, Old Karluk, Karluk One, many others
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<b>Description</b>	<p>Ulus area a type of knife used across Esk-Aleut speaking world - often by women. They are sometimes called womens knives or semi-lunar knives . These utilitarian cutting and filleting tools have one long ground sharp edge with an opposing blunted edge to which a handle was often hafted. Historically, they were used to process fish, work hides, and perform a multitude of other domestic tasks.Ulus were made in numerous sizes, and include both giant pieces and miniatures that are likely toys.</p> <p>These tools are common throughout the Kachemak and Koniag traditions and their size and shape change over time.</p> <p>Ulu preforms can be identified by their distinctive shape and material. They have been chipped to shape from slate. Like the ulus, ulu preforms can categorized according to size (small, medium, or large) and shape of blade (curved or straight). In general, the proportion of specimens in each category was similar to the proportions represented by the complete ulus. This supports the idea that site's residents intended to make curved and straight ulus and that the curved ulus are not, for instance, straight ulus that have been resharpened.</p> <p>Like ground point preforms, ulu preforms can be assigned a stage of manufacture. Stage one pieces are chipped to shape but not ground; Stage two pieces are chipped to shape and exhibit some grinding; Stage three pieces are almost finished, but do not have a sharpened edge.</p>
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<b>References</b>	Knecht, Richard A. 1995, The Late Prehistory of the Alutiiq People: Culture Change on the Kodiak Archipelago from 1200–1750 AD. PhD dissertation, Bryn Mawr College, Bryn Mawr, PA.
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<b>Last Update</b>	05/29/2021	<b>Updated By</b>	Amy Steffian
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Alutiiq Technological Inventory—Ground Stone Tools

ULUS



Kachemak ulus from the Olga Lakes area (AM571)



Half crescent ulus from Karluk On3 (AM193)

Alutiiq Technological Inventory—Ground Stone Tools



Oblong ulus from Karluk One (AM193).



Straight ulus from Karluk One (AM193).

Alutiiq Technological Inventory—Ground Stone Tools



Ulus with drilled holes for handle hafting from Karluk One (AM193).



Stemmed ulus from Karluk One (AM193).



# Alutiiq Technological Inventory

## Artifact Class Summary Sheet

**English Names**  **Alutiiq Names**

**Industry**  **Activity**  **Function**

**Common Materials**

**LxWxD (cm)**

**Tradition**  **Ocean Bay**  **Kachemak**  **Koniag**  **Alutiiq**

**Miniature**  **Yes**  **No/Unknown** **Example Sites Found**

**Description**

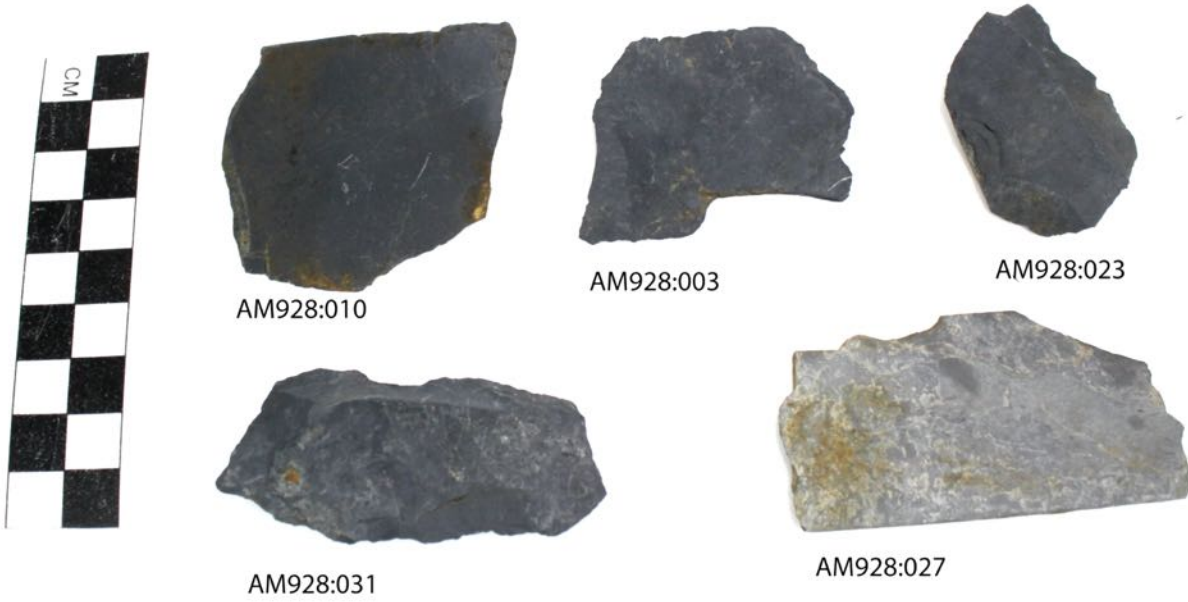
**References**

**Last Update**

**Updated By**

Alutiiq Technological Inventory—Ground Stone Tools

Worked Slate



Fragments of worked slate from Kugyasiliwik Site (AM928)