CHAPTER 5. WORKED COBBLES—YAAMAT ALLUURNGASQAT

This group of tools includes objects manufactured from cobbles—typically waterworn pieces of greywacke, granite, sandstone, and pumice, or chunks of collected material like scoria or siltstone. Some pieces are formally shaped by chipping or pecking (Table 5.1). Others are unmodified stone used in tool manufacture. Unmodified pieces often show use wear—evidence they were employed to break apart, grind, or abrade materials or shape tools in production. This use wear can make an object look like a formally shaped tool. For example, tabular pieces of siltstone used as whetstones are often ground along the edges creating a rectangular object. The Alutiiq term for these groups of tools is *yaamat alluurngasqat*, altered rocks.

Chipped Tools*	Pecked Tools	Unmodified Tools**
Anchor	Adze - grooved splitting	Abrader
Biface Abrader	Artwork / Sculpture	Burnishing Stone
Box Lid	Lamp	Gaming Ball
Cobble Scraper	Line Sinker	Hammerstone
Cobble Spall	Maul	Hearth / Box Slab
Net Sinker	Pecked Rod	Hone
U-shaped Abrader	Plummet	Line Weight
Ulu-shaped Scraper	Story Rock	Pigment Grinder
		Pigment Stone
		Whetstone

Table 5.1. Subclasses of cobble tools

*Includes cobble debitage (cobble cores, cobble scrap)

**Unmodified pieces of stone employed as tools, often displaying use wear

Figure 5.1. Temporal distribution of cobble tools (debitage not included)

		OCEAN BAY		KACHEMAK			KO	IIAG								
	Cobble Tools	7500	7000	6500	6000	5500	5000	4500	4000	3500	3000	2500	2000	1500	1000	500
	Anchor													?		
	Biface Abrader															
ed	Cobble Scraper															
qqi	Cobble Spall															
ъ	Net Sinker															
	U-shaped Abrader															
	Ulu-shaped Scraper															
	Adze (grooved splitting)															
	Artwork (sculpture)															
_	Lamp															
ked	Line Sinker		?													
Ъес	Maul															
-	Pecked Rod															
	Plummet															
	Story Rock															
	Abrader															
р	Burnishing Stone															
fie	Gaming Ball															
odi	Hammerstone															
E L	Hone															
	Pigment Grinder															
	Whetstone															

Cobble tools are widely present in Kodiak Alutiiq assemblages (Figure 5.1 and Table 5.2). Tools from each subclass (chipped, pecked, unmodified) occur throughout Alutiiq history including the historic period. Between the subclasses, however, there is some temporal patterning. Large pigment grinders (both the mano and metate pieces) are common in Ocean Bay sites, but rare in later assemblages. Chipped cobble tools are common in Kachemak tradition sites due to the widespread use of cobble spalls for butchering tasks in the Early Kachemak and the widespread use of notched cobble net sinkers in the Late Kachemak. Similarly, the size and variety of pecked stone objects increases through time, with more and larger pecked stone objects in the Koniag tradition. In part, this reflects increases in the sizes of houses and boats built by craftspeople. Multi-roomed structures and large open skin boats required more woodworking and the shaping of larger elements. Mauls and grooved splitting adzes are added to tool assemblages at this time. In each subclass there is also temporal patterning in some tools.

English	Alutiiq	Comment					
Chipped Cobble Tools—Ilaiyar	ngasqaq (chipped one)						
Anchor	Kicaq ^m						
Biface Abrader	Keligtusqak ^c (intentional dual)	"thing(s) for continually scraping"					
Box Lid	Patuq ^m						
Cobble Core	Qukaa ^c	"It's middle/center", for any type of core					
Cobble Scrap	Calleq*	"piece of debris"					
Cobble Scraper	K'ligsuuteq ^c	"carving tool"					
Cobble Spall	Seg'suuteq ^c	butchering knife or fillet knife					
Net Sinker (notched pebble)	Kitsuuteq ^c						
U-shaped Abrader	K'liguasuuteq ^c	"kind of a carving tool"					
Ulu-shaped Scraper	Ulukaruaq ^c	"kind of an ulu"					
Pecked Cobble Tools— Pu'ugturngasqaq (pecked one)							
Adze (grooved splitting)	TupuuRuq ^m						
Artwork (sculpture)	Canamasqaq ^c	"a made thing"					
Lamp	Naniq ^m , Laam'paaq ^m						
Line Weight	Kicauteq ^m , Kitsuuteq ^c						
Maul	MuRut'uuruasinaq ^c , Mulut'uuruasinaq ^c , MuRut'uurpak ^c	"big hammer"					
Pestle	Ciisuun ^c						
Plummet	Kitsuuteq ^c						
Rod	Ipegca'isuuteq ^c , Ip'gca'isuun ^c	"something to make an edge"					
Story Rock	Quliyanguaqutaq ^c						
Unmodified Cobble Tools							
Abrader	Rasqaq ^m	"hollowed one?"					
Burnishing Stone	Rirsuuteq ^c						
Gaming Balls	Mayaciingcuk ^c						
Hammerstone	Mulut'uuk ^m , MuRut'uuk ^m	"hammer"					
Hearth / Box Slab	Kenerwigem Estinaa ^c	"fireplace's wall"					
Hone	Ipegca'isuuteq ^c , Ip'gca'isuun ^c	"something to make an edge"					
Line Weight	Kicauteq ^m , Kitsuuteq ^c						
Pigment Grinder	Uiteram Ciisuut'ra*	"tool for grinding ochre"					
Pigment Stone	Qetaq ^h *	term for paint, charcoal, ochre					
Whetstone	Minguutaq ^m , ipegucaq ^m	"something to make an edge"					

Table 5.2. Alutiiq terms for cobble tools

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

* = suggested term needing additional review

Chipped Cobble Tools—Ilaiyarngasqaq (chipped one)

The chipped cobble and chipped stone industries are both reductive. They rely on breaking apart stone to create sharp working edges. However, these industries also have distinct differences. Chipped stone tools are made of cryptocrystalline rocks that are roughly flaked and then shaped through more controlled forms of percussion. In contrast, chipped cobble tools are made of large pieces of granular stone, particularly greywacke. This material is roughly flaked but not finished further (Figure 5.2). The initial process of tool creation is the same for both industries, and both create a set of debitage that includes cores, flakes, and shatter. However, as the intended tools are different, we label analogous by-products with distinct names. Flakes of greywacke or chert are all technically flakes. However, we call unmodified greywacke flakes cobble spalls (a flake suitable for use) or cobble scrap (a flake not suitable for use). Only a flake of cryptocrystalline rock is called a flake.



Figure 5.2. Artifacts associated with cobble spall production.

Greywacke beach cobbles are the foundation of the chipped cobble industry. Other coarse-grained rocks are occasionally used, but greywacke is ubiquitous. Craftspeople reduced waterworn round or oblong beach cobbles into cobble spalls with a large hammerstone (generally another cobble). The sharp-edged cobble spall is the intended final product of this

process. These tools are typically hand-sized with substantial amounts of cobble cortex. We classify examples that show use wear as split cobble scrapers. These easily produced tools from widely available material are the Swiss Army Knife of Alutiiq prehistory. They are useful for many cutting and scraping tasks and were widely used. Occasionally, cobble spalls were reduced further, retouched to create a shallow u-shaped edge that is often damaged by use. We call these tools 'u-shaped abraders' and suspect they were a form of scraper used on rounded objects, perhaps branches and/or animal bones.

This set of tools is strongly associated with the food drying and smoking activities of the Early Kachemak, particularly cod processing. In the Early Kachemak layers of the Horseshoe Cove site smoke-processing features were filled and surrounded with nothing but cobble tools and quantities of cod bones (Saltonstall and Steffian 2006).

Other chipped cobble tools are modestly shaped pebbles (Figure 5.3). For example, net sinkers, a very common artifact in Kachemak assemblages, are typically flat, oblong pebbles of greywacke or slate that have been chipped on their long ends. A couple of quick strikes to the end of the pebble produced a useful tool. Similarly, small, narrow greywacke pebbles are occasionally chipped all around their edge, creating the look of a rough biface. Based on usewear, these appear to be some form of abrader. We call these tools biface abraders, and they are common in the Koniag tradition.

In short, chipped cobble tools are minimally worked pieces of locally abundant, waterworn, beach rock that have been transformed into utilitarian tools. They are widely present in prehistoric assemblages especially those of the Early Kachemak tradition.



Figure 5.3. Examples of chipped cobble tools.

U-shaped Abraders Box Lid Biface Abrader



English Names	Anchor	Alutiiq Names	Kicaq
Industry	Chipped Cobble Activity Boating	Fund	ction Secure boat
Common Materials	Slate		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 📄 Kachemak	🗸 Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Karluk One	
Description	These large slate slabs or grey wack cobinotched just at the ends, others have note they are much larger and heavier. The phenet sinker and an anchor to illustrate the s	bles are notched like ches on all four side oto on the following size difference.	e a net sinker to hold a line. Some are s. These tools look like net sinkers, but page provides a comparison between a
References	Steffian et al. 2015		
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ANCHOR



Greywacke anchor and net sinker from Karluk One compared.



English Names	Biface Abrader	Alutiiq Names	Keligtusqak—thing for continually scraping
Industry	Chipped Cobble Activity Manufacturin	ng Func	tion Tool Making
Common Materials	Greywacke		
LxWxD (cm)	4 to 7 cm long		
Tradition	Ocean Bay Kachemak	✓ Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found K No/Unknown 	arluk One	
Description	This is a distinct class of chipped cobble to cobbles of greywacke bifaces. Only the en- surfaces of the stone. These tools show e appears abrasive (hence the name). They	ool, made by bifacia dge of the cobble is dge utilization. The may have been sc	aly chipping the edges of small, narrow a worked, with cortex visible along both ey are blunted with bifacial wear that rapers or wedges.
References	Steffian et al. 2015		
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BIFACE ABRADER



Biface abraders from Karuk One (both photos).





English Names	Box Lid	Alutiiq Names	Patuq
Industry	Chipped Cobble Activity Cooking/S	torage Fund	ction Covering an slate box
Common Materials	Slate		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 🔄 Kachemak	Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Settlement Point	
Description	These artifacts are trimmed slate shingle rectangular shape with a roughly circula Settlement Point site on Afognak Island pecked hole is presumably a hand hole, box lids made from wood have a similar Another example of a lid from Settlemer hole. The pieces are trimmed to fit toget The manufacture of these tools is simila lack grinding.	es - pieces of slate th r hole chipped throug and at least one was a place to insert fing shape and a hole in t point has two slate her. r to the early stages of	at have been chipped into a square or h the center. Examples were found at the covering a slate slab storage box. The ers to lift the lid off a box. Much smaller the center for either a knob or a string. slab pieces, each with a semi-circular grip of working slate for grinding, but box lids
References	Saltonstall, Patrick G., 1998, Cooking an Point, Afognak Island. Paper presented Association, Anchorage.	nd Storage in the Ear at the 25th Annual m	ly Koniag Period, A View from Settlement neeting of the Alaska Anthropological
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BOX LID



Slate box lids from Settlement Point (AM33)



English Names	Cobble Core	Alutiiq Names	Qukaa—It's middle / center
Industry	Chipped Cobble Activity Manufactur	ing Func	tion Tool Making
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	🗹 Ocean Bay 🛛 🔽 Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	Yes Example Sites Found	Kashevaroff site, Zai	mka Mound, Horseshoe Cove
	No/Unknown		
Description	Cobble cores are greywacke beach cobb remove large flakes, creating cobble spa modification into U-shaped abraders. The just a single flake removed. Others are e nodules of greywacke from which additio on cobble cores.	les that display evide lls for use as expedie ese include cobbles i xpended; they have nal large flakes cann	ence of reduction. They have ben struck to ent cutting and scraping tools or spalls for n various stages of reduction. Some have had multiple flakes remove leaving a not be struck. Cortex is commonly present
References	Saltonstall, Patrick G. and Amy F. Steffia Papers in Alaskan Field Archaeology, Nu	n, 2006, The Archae mber 1. Bureau of Ir	ology of Horseshoe Cove, Occaisional ndian Affairs Alaska Region, Anchorage.
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COBBLE CORE



Cobble cores from the Kashevaroff site (AM724)



English Names	Cobble Scrap	Alutiiq Names	Calleq—piece of debris
Industry	Chipped Cobble Activity Manufac	turing Fun	ction Debitage from Tool Making
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	🕑 Ocean Bay 🛛 🔽 Kachemak	V Koniag	Alutiiq
Miniature	Yes Example Sites Foun	d Kashevaroff site, Za	imka Mound, Horseshoe Cove
	No/Unknown		
Description	Cobble scrap is debitage—the by-proc some beach worn cortex from the sou purposeful reduction.	duct of producing cobb rce cobble, and angula	le spalls. Cobble scrap generally displays ar fractured edges provides evidence of
	The difference between cobble scrap a while spalls tend to be discoidal and h Cobble scrap is analogous to 'shatter'	and spalls is that scrap ave a 'useable' edge th in the chipped stone to	o appears to be angular and unusable, nat often shows use wear (cobble scraper). col category.
References	Saltonstall, Patrick G. and Amy F. Ster Papers in Alaskan Field Archaeology,	ffian, 2006, The Archae Number 1. Bureau of I	eology of Horseshoe Cove, Occaisional ndian Affairs Alaska Region, Anchorage.
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COBBLE SCRAP



Cobble scrap from the Kashevaroff Site, AM724



Cobble scrap (circled) in comparison to hammerstone, cores, spalls, and scrapers.



English Names	Cobble Scraper	Alutiiq Names	K'ligsuuteq—Carving tool
Industry	Chipped Cobble Activity Cooking/S	Storage Fu	nction Cutting and Scraping
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	🗹 Ocean Bay 🛛 🖌 Kachemak	Koniag	🗌 Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Kashevaroff Site, Z	Zaimka Mound, Horseshoe Cove
Description	Cobble scrapers are found throughout create expedient cutting and scraping t cobbles to create a sharp-edge spall. S flake knives from greywacke cobbles. C Kodiak Alutiiq cobble scrapers are almo Cobble scrapers are cobble spalls that shape and almost always have cobble grasped due to their size and the prese distinct from other cutting tools in that t knives). Also known as spit cobble scrapers. Many Alutiiq collections catalogs do no scrapers (used), but use cobble scrape use.	Kodiak's prehistoric r ools. Islanders knock ome of these tools n Others appear to be a ost always made from display use-wear. Th cortex. They tend to nce of smooth cortic hey do not require a t differentiate betwee r as a generic term f	record, and reflect the use of cobbles to ked thick cortical flakes from water worn hay be debitage from creating expedient actual knives (intentionally made pieces). In greywacke. These tools are typically round to oval in be large (hand-sized or smaller) and easily al surface on the dorsal side. They are handle (e.g., slate knives, chipped stone or all large greywacke flakes suitable for
References	Clark 1974:226, Plate 25 Saltonstall, Patrick G. and Amy F. Steff Papers in Alaskan Field Archaeology, N	ian, 2006, The Archa Jumber 1. Bureau of	eology of Horseshoe Cove, Occaisional Indian Affairs Alaska Region, Anchorage,
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Cobble scrapers from Karluk One (dorsal side up)



Coble scrapers from the Ayakulik River region of Kodiak (AM480)



English Names	Cobble Spall		Alutiiq Names	s Qı	upsuuruaq—kind of a knife
Industry	Chipped Cobble Activity	Cooking/Sto	rage Fu	nctio	n Debitage
Common Materials	Greywacke				
LxWxD (cm)					
Tradition	🗹 Ocean Bay 🛛 🗸 Kach	emak	🗸 Koniag		Alutiiq
Miniature	 Yes Example Site No/Unknown 	es Found K	Cashevaroff Site, 2 Nound	Zaimk	a Mound, Horseshoe Cove, Salonie
Description	Cobble spall are found throug to create expedient cutting and create sharp-edge spalls. The potential tools or the debitage Spalls are typically round to or sized or smaller) and easily gr the dorsal side. Many Alutiiq collections catalo scrapers (used), but use cobb use.	hout Kodiak d scraping to se are esse from making val and almo asped due to ogs do not di le scraper a	's prehistoric reco pols. Islanders kn ntially large flakes g cobble scrapers ost always have c to their size and th fferentiate betwee s a generic term f	ord, ar ocked s that s (spa obble ne pre	nd reflect the use of water worn cobbles d thick cortical flakes from cobbles to do not show use wear. They are ills with use wear). e cortex. They tend to be large (hand- esence of smooth cortical surface on bble spalls (unused) and cobble large greywacke flakes suitable for
References	Saltonstall, Patrick G. and Am Papers in Alaskan Field Archa	y F. Steffian aeology, Nur	, 2006, The Archa nber 1. Bureau of	aeolo <u>(</u> India	gy of Horseshoe Cove, Occaisional In Affairs Alaska Region, Anchorage.
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COBBLE SPALL



Greywacke cobble spalls from Salonie Mound



English Names	Net sinker / notched cobble	Alutiiq Names	Kitsuuteq
Industry	Chipped Cobble Activity Fishing	Fun	ction Net weight
Common Materials	greywacke, slate		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 🛛 🖌 Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Foun No/Unknown 	d Outlet site, Old Karl	uk, Tsunami Site, Salmon Bend
Description	Palm-sized, oval to sub-rectangular, w Cobbles are flat or nearly flat. Chippin chipped on each narrow end to create notching creates a u-shaped indentati chipping. Rarely, a sinker will have a t Expediently produced with a hammers Analogous to the lead line on a moder A very common artifact type. Appears much larger than later examples. Net also found in Koniag sites. Piles of small cobbles without notches	vater rounded cobbles of g is often from both dir a notch for tying the s on. In others, the ends hird notch in the middle stone. m seine net. ca., 4,000 BP, in the E sinkers are most comm s are found in sites and	chipped on both ends (bi-notched). ections-both faces of the cobble are inker to the base of a net. In some cases, of the cobble are simply blunted by e of one its long sides (Tri-notched). arly Kachemak. The earliest examples are non in the Kachemak tradition but they are may be net sinker preforms.
References	Clark, Donald W., 2008, Five Seasons 6(1&2):185-197.	s with the Late Kachem	nak, Alaska Journal of Anthropology,
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NET SINKER / NOTCHED COBBLE

Net Sinkers from KAR-310, Karluk Lake



Types of notching found on net sinkers in Alutiiq assemblages





English Names	U-Shaped Abrader	Alutiiq Names	K'liguasuuteq—kind of like a carving tool
Industry	Chipped Cobble Activity Building/We	oodworking Fun	ction Scraping wood or bone?
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	Ocean Bay 🖌 Kachemak	☐ Koniag	Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Zaimka Mound, Salo	onie Mound
Description	U-shaped abraders are defined by Clark made from greywacke cobble spalls. The have a single notch, but some have two deep u to an almost flat edge. They usu Many also have multiple notches, with u- common find in Early Kachemak era site Early Kachemak specimens differ from th The Koniag examples tend to be made fi examples tend to be made on greywacke Early Kachemak specimens is 'bifacial' in Both types (Koniag and Kachemak) were spoke shaves, shaft abraders, or even ta	(1974b:85) as single ey typically have rela or three on the same ally exhibit evidence shaped working edg s. nose of the Koniag E rom slate and have of e cobbles spalls and nature indicating the probably used as s isks bark removal to	e-notched stone slabs. They are typically trively shallow, wide notches. Many tool e piece. However, the notch varies from a of both bifacial retouch and use wear. ged on two side of the tool. They are a very fra illustrated in Clark (1974b:plate 28). deep, round notches. In contrast, older have shallow notches. The notch in the nat the use-wear was in both directions. some sort of wood abrader – perhaps as ols.
References	Clark, Donald W., 1974		
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U-SHAPED ABRADER



U-shaped abraders from Salonie Mound, AM535



English Names	Ulu shaped scra	iper	Alutiiq Names	Ulukamasqaq K'ligsuun—Ulu-like scraper
Industry	Chipped Stone	Activity Manufacturi	ng Fun	ction Hide working?
Common Materials	Greywacke, Coa	arse Slate		
LxWxD (cm)	5 - 11 cm long			
Tradition	Ocean Bay	✓ Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	⊖ Yes	Example Sites Found	Dutlet, Uyak, Rolling	g Bay, Kiavak, Afognak
	No/Unknow	n		
Description	Ulu shaped tools materials like gri spalls off of grey the natural schis bifacial use. Lik This category of variety of terms them as 'boulde categories seem materials from F 'ulu shaped scra site, seems to ill type IIIa); many but does not illus Plate 27), descri shaped scrapers distinguishing be (stone saws). In seem to be extre	s look like ulus, but were eywacke that do not hold wacke cobbles (see cobb stocity or cleavage of the e the ulus, there are spece f artifact has long been re and attributed many diffe r chips' and 'chipped slate n to subsume what we hat Prince William Sound, de la opers'. Heizer (1956: plat ustrate 'ulu shaped tools' of these might also be wh strate a 'stone saw' that s ibing Koniag materials fro s'. In the same report he etween the two seems to n any case, these tools hat emely common, whatever	obviously not intend a ground edge. The ole spalls above) but material. The edge simens with both str cognized in the Alut rent functions. De L e scrapers', or 'ston ve termed ulu-shap Laguna (1956: Plate e 42a,b,c,f) in his w but calls these piec hat we would term u ounds much like an m the Rolling Bay a also illustrates (197 be a curved (ulu shave been found in be their function.	ded to be sharpened. They are made from ey are not made on conchoidally flaked it from tabular pieces created because of of these pieces is often wor smooth with aight and curved edges. tiiq culture area, but has been classified a aguna (1934: plate 20, 35 & 56) illustrates e saws' (1934: plate 22). All three ed scrapers. In describing archaeological e 16) describes them as 'stone saws' and rite up of Hrdlicka's excavation of the Uyak ces 'chipped and unpolished ulus' (1956:49, ilu preforms. He also describes (1956:46) o 'ulu-shaped tool'. Donald Clark (1974: and Kiavak sites, illustrates them as 'ulu- '4; plate 25) stone saws. His criteria for aped scrapers) vs. straight blade edge oth Kachemak and Koniag contexts and
References	Clark, D. W., 19 Heizer, R., 1956	74		
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ULU-SHAPED SCRAPERS





Ulu-shaped Scrapers from Karluk One, AM193

Pecked Cobble Tools—Pu'ugturngasqaq (pecked one)

This group of cobble tools includes pieces shaped by repeated percussion (Table 5.2, Figure 5.4). Craftspeople used stones to systematically hammer another stone. This pecking process removed tiny flecks of material and shaped objects. The flecks are so small that there is no recoverable debitage associated with this form of cobble working, although preform pieces and hammerstones used for pecking are present. Greywacke is a commonly pecked material, but this part of the cobble industry also includes tools made from granite. Tonalite, a light, greenish grey granite that occurs in dykes around the archipelago was often used for lamps.

Unlike chipped cobble tools, which are quickly made and frequently discarded, pecked stone tool production requires more time, energy, and persistence. Pecking experiments by Sven Haakanson (2019) indicate this is a slow process. They also suggest that craftspeople used two stones. A hammerstone pounded against a pecking stone appears to be the most effective pecking method. There are fewer pecked cobble tools than chipped cobble tools in ancestral Alutiiq sites. We suspect that tools, like lamps, that took many hours to create were specially stored for later use or carried by people as they moved between settlements.

Figure 5.4. Examples of pecked cobble tools.



Lamp Rod Adze



English Names	Splitting Adze	Alutiiq Names	TupuuRuq
Industry	Pecked Cobble Activity Building/W	oodworking Fund	ction Splitting logs
Common Materials	Granite, Schist		
LxWxD (cm)	13 to 30 cm long		
Tradition	Ocean Bay 🗌 Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	○ Yes Example Sites Found	Karluk One	
	No/Unknown		
Description	These adzes are large, heavy pieces typ other very hard stone. Craftspeople took ground them to shape. Splitting adzes ha side), which facilitated hafting to a wood There are two basic shapes of splitting a shaped. The D-shape has a flat bottom a of the piece. They tend to be long and na dorsal surface that stand up above the p tend to be short and thick in comparison working edge (distal tip is v-shaped in cr These are sturdy artifacts used to split lo the Koniag tradition, and appear in the a in size, requiring larger wooden element	bically pecked from w advantage of natura ave at least one (and en handle. adzes in the Karluk O and and a gently arch arrow. Shoe-shaped lane of the dorsal su with D-shape forms. oss section). bgs and perhaps larger rchaeological record s.	rater worn cobbles of granite, schist, or ally shaped cobbles and then pecked and a up to three) grooves along the dorsal (top ne assemblage, D-shaped and shoe- ned top with grooved pecked into the body splitting adzes have pecked ridges on the rface (like the opening of a sneaker). They Both types have a ground v-shaped e pieces of bone. They are found only in at a time when boats and houses expand
References	Steffian et al. 2015		
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PECKED SPLITTING ADZE



Pecked Adzes from Karluk One



Top Left: Shoe-shaped splitting adzes.

Bottom Left: D-shaped splitting adzes

All from Karluk One



English Names	Artwork / Sculpture	Alutiiq Names	
Industry	Pecked Cobble Activity Celebrations	Fund	ction Decorative?
Common Materials	Sandstone, Granite		
LxWxD (cm)			
Tradition	🗸 Ocean Bay 🗌 Kachemak [✓ Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	arluk One, Rice Ric	dge
Description	Sculpted stone is present throughout Kodi shapes and in some cases added artistic s lamps are a well-known example. A selec in relief, as well as three-dimensional scul from this class of object which is reserved identifiable tools. These objects are very re	ak's archaeological sculptural elements tion of these pecke ptures in there bow for art pieces—thre are and highly varia	I record. People pecked stone into useful to functional objects. Late Kachemak d stone tool have surface designs pecked ls. We consider decorated tools separate ee-dimensional sculptures that are not able.
References	Steffian, A. F., editor, 2018, Igaruacirpet—	Our way of making	designs, Alutiiq Museum, Kodiak.
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Pecked Sandstone Figurine from Chirikof Island



Pecked Granite face from Karluk



Pecked, ground and incised sandstone object from Rice Ridge



Pecked stone object from Rice Ridge



English Names	Lamp		Alutiiq Names	Naniq, Laam'paaq
Industry	Pecked Cobble	Activity Manufactur	ing Fun	Iction Household light and heat
Common Materials	Sandstone, Granite	e (tonalite), Greywacke	e	
LxWxD (cm)				
Tradition	🗹 Ocean Bay	Kachemak	V Koniag	Alutiiq
Miniature	• Yes Ex	ample Sites Found	Zaimka Mound, Kas	shevaroff site, Uyak site, Karluk One
	🔿 No/Unknown	L		
Description	Pecked oil lamps a from sandstone col shaped (a long trian side of the their box Arctic oil lamps and oil lamp. In later tim time there was mor lamps were only us In the Ocean Bay to such as greywacke but typically have a made. They have a There are also fist- Over time, Alutiiq la lamps show peckin designs that are ge of the lamp. These up above the oil an clearly made from I Koniag tradition lan up to 4 cm across. look remarkably like front – a wide and f on their outer bowls	re found in Alutiiq sites obles and they are car ngle with one straight wl indicating that they d reflects a lack of woo nes, Alutiiq lamps had re wood available. Housed for light. radition, boat shaped l e and a greenish grey g thin, rounded rim. Ma a pecked bowl on the s sized lamps that were amps become larger a g. Late Kachemak era cometric, anthropomor lamps may also have d might have served a beach cobble nps are easily recogni. They occur in many si e early 20th century be flat notch pecked throus s.	s from all time period refully shaped inside and one pointed en had multiple wicks od – houses had to only one wick set o uses typically have amps were replace granite known as to any late Ocean Bay surface of an otherw designed to by car and more carefully s a lamps are frequen phic, and zoomorph . The protuberance as a wick rest. Som zed by their very sta izes, from truly enou- ed pans. These lam ugh the rim These lam	 ads. The earliest lamps are typically made e and out. These early lamps are boat d, like a skiff). They are burned down each along the edges. This is also typical of East be both heated and illuminated with a stone on a wick shelf at the tip of the lamp. By this large hearths for heating and cooking, and ad by oval lamps pecked from harder rocks malite. These tools vary a great deal in size and Early Kachemak lamps are simply vise unmodified waterworn beach cobble. ried by travelers. haped. The insides and outsides of the tly decorated (see Heizer 1956). Bas-relief nic were pecked into the bottoms and sides are inside of the bowl likely would have stuck the of these lamps are enormous. They are andardized oval shape with a flat, wide rims rmous examples to toy-sized pieces, and ps also have a distinctive wick shelf at the lamps are only rarely decorated with motifs
References	Heizer, Robert, 195 Press, Berkeley.	56, Archaeology of the	Uyak Site, Kodiak	Island, Alaska. University of California
	Steffian, A. F., edito	or, 2018, Igaruacirpet–	-Our way of making	g designs, Alutiiq Museum, Kodiak.
Last Update	05/13/2021		Updated By	my Steffian

LAMPS



Boat-shaped Ocean Bay lamps of sandstone from Zaimka Mound and the Kashevaroff site.



Miniature lamps from Karluk One (AM193)



Decorated lamp from Afognak Island—style suggests a Kachemak piece.



Stone lamp with bas-relief carving on the bottom showing the head of a seal. The rim-style of this lamp suggests a Koniag tradition piece. AM925.



Koniag tradition lamps from Karluk One



Simply made lamps and a lamp preform from Karluk One (top row, AM193) and a lamp preform from Nunakakhnak (center, AM257).



English Names	Line Weight	Alutiiq Names	Kicauteq, Kitsuuteq
Industry	Pecked Cobble Activity Fishing	Fund	ction Line Weight
Common Materials	Granite, Greywacke		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 🛛 🖌 Kachemak	C Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Zaimka Mound, Little	e Island site, Blisky site
Description	Line weights are found throughout Kodia fishing—sinking a rig to the ocean floor. greywacke beach cobbles and pecked w Karluk One, had a think piece of kelp se Line weights tend to be about fist-sized w axis. We identified at least four varieties 1) One pecked groove encircling the cot but a few examples have a groove aroun 2) Pecked grooves at either end of the c cobble. Instead, they have pecked groove at the center of each axis. 3) An encircling groove around the width the sinker like a plummet. 4) A small pecked notch at the long ends Clark, Donald. W., 1997. The Early Kach Survey of Canada, Mercury Series, Pap	Ik's archaeological re They are commonly rith a variety of groov t into the groove, per with one or more pec in the museum's coll oble. This groove is ty nd their width (short a obble. These sinkers res on the end a sma s at the ends of the I of the cobble and a s of the cobble, some	ecord and are thought to be for marine made from waterworn granite and es to hold a line. One example, found at haps to help keep a line secure. ked groove across either their long or short ections. //pically along the long axis of the cobble, axis) s don't have a groove encircling the entire ill way down the face of the cobble on ong axis, but a few have 4 grooves - one groove at one end - perhaps to suspend times with chipping too.
Last Update	05/22/2021	Updated By	mv Steffian

Alutiiq Technological Inventory—Pecked Cobble Tools

LINE WEIGHT



Groove around horizontal axis

Groove around vertical axis

Line weights with an encircling groove from Karluk One (AM193)



Alutiiq Technological Inventory—Pecked Cobble Tools

Line weights with end and side grooves from Karluk One (AM193)



Line weights with a groove around the horizontal axis and over the end Karluk One (AM193).



Minimalist line weights–with a small pecked and/or chipped notch at the ends from Settlement Point (AM33)



English Names	Maul	Alutiiq Names	MuRut'uuruasinaq, Mulut'uuruasinaq, MuF
Industry	Pecked Cobble Activity Building/We	oodworking Fund	ction Hammer
Common Materials	Granite, Greywacke		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 📄 Kachemak	Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Karluk One	
Description	These tools were used a hammers to drive typically heavy and made of granite, althous diagnostic, occurring in late prehistoric K hammer". Like line weights, mauls are water worn of to have a groove around three sides —be cobble is pecked flat and features a sma presumably for hafting to a sturdy woode pounding. A few examples have pecked decoration face of a bird.	ve wedges for splittir ough greywacke exa oniag tradition sites. cobbles with pecked oth long axises and a ll knob (nipple-like) in en handle. Many mau s, including an exam	ng logs and pound stakes. They are imples are also found. They are temporally The Alutiiq term for these tools means "big grooves. The difference is that mauls tend across one end. On the other end, the in the center. These features are als have one flat side on their long axes for aple shown on the next page that features a
References	Steffian, Amy F., Marnie A. Leist, Sven D 2015 Kal'unek—From Karluk, Kodiak Al University of Alaska Press, Fairbanks.	. Haakanson, and Pautiiq History and the	atrick G. Saltonstall Archaeology of the Karluk One Site.
Last Update	05/22/2021	Updated By	my Steffian

MAULS





Mauls from Karluk One (AM193)



Decorated Maul from Karluk One (AM193) with the face of a bird



English Names	Pestle	Alutiiq Names	Ciisuun
Industry	Pecked Cobble Activity Cooking/Sto	brage Fund	ction Grinding and mashing
Common Materials	Greywacke		
LxWxD (cm)	ca. 11 cm tall		
Tradition	🗌 Ocean Bay 🛛 🔽 Kachemak	🗌 Koniag	☐ Alutiiq
Miniature	○ Yes Example Sites Found	Pestikoff Collection	(AM
	No/Unknown		
Description	A small pestle, shaped like a stove pipe h likely that the manufacturer took advanta Pestles from the Koniag tradition is simila This tool features a wide, flat base (distal section. The edges of the top of the hand slightly convex.	at, is pecked from g ge of a similarly sha rly shaped and mad end) that tapers to le (proximal end) of	greywacke. This is a rare artifact and it is ped beach cobble to create this tools. de of wood. a cylindrical handle with a round cross the handle are rounded and the top is
References	This manual.	Undated By	

PESTLE



Pecked stone pestle from the Pestrikoff Collection





English Names	Pummet	Alutiiq Names	Itsuuteq
Industry	Pecked Cobble Activity Fishing	Fun	ction Line Weight
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 🛛 🔽 Kachemak	Koniag	☐ Alutiiq
Miniature	Yes Example Sites Found	Zaimka Mound, Littl	e Island site, Blisky site
	No/Unknown		
Description	Plummets are oblong, waterworn beach Sometimes the groove simply encircles plummets the groove is enhanced to cro These tools are thought to be line weigh are found only in the Early Kachemak tro in size and weight.	cobbles with a groov the top of the cobble eate a distinctive, sm ts for marine fishing adition. They are typi	ve pecked around the top of one end. (like the groove on a line weight). On other hall knob at the top of the cobbled. and they are temporally diagnostic. They ically made of greywacke and range widely
References	Clark, Donald. W., 1997. The Early Kacl Survey of Canada, Mercury Series, Pap	nemak Phase on Koo er 155. Canadian Mu	diak Island at Old Kiavak. Archaeological useum of Civilization, Hull.
Last Update	05/22/2021	Updated By A	my Steffian

PLUMMETS



Grooved plummet from the Blisky site



Knobbed plummets from Zaimka Mound (left), and the Little Island Site (Right)



Plummets preforms (early stage of manufacture) from Little Island and Mitk'sqaq Angayaq sites.



English Names	Pecked Rod Alutiiq Names	
Industry	Pecked Cobble Activity Manufacturing Function	
Common Materials	Greywacke, Slate	
LxWxD (cm)		
Tradition	🗌 Ocean Bay 📄 Kachemak 🖌 Koniag 📄 Alutiiq	
Miniature	Yes Example Sites Found KAR-310 No/Unknown	
Description	This is a distinctive tool type identified at the KAR-310 site in 2019, a late Koniag tradition fish camp the outlet to Karluk Lake. The function of these tools is unknown. However, these objects are long narrow pieces of greywacke and slate pecked along at least two sides of their length. This pecking appears deliberate, designed to rough up the edges of the stone. It is uniform along the edges and concentrated in a couple of locations like the damage incurred by using a hammerstone. Perhaps these are some form of line weight, pecked to improve attachment of a line?	at
References	Kodiak Island, Alaska. Report prepared for Koniag, Inc., Alutiiq Museum, Kodiak.	ι υ ,
Last Update	05/13/2021 Updated By Amy Steffian	Γ

PECKED RODS



Pecked Rods from KAR-310, Karluk Lake



English Names	Story Rock	Alutiiq Names	Quliyanguaqutaq
Industry	Pecked Cobble Activity Festival	Fund	ction Ceremonial?
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 🔄 Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	○ Yes Example Sites Found	Karluk One	
	No/Unknown		
Description	This large rock / small boulder was collect pecked, circular pits (ranging from 2 to 7 depressions and pitting marks from their t	ted from the beach cm) and one natural manufacture are vis	by the Karluk One site. It had fourteen I hole. The pits are shallow, cupped ible.
	This artifact strongly resembles pitted pet boulders around the coast of Kodiak.	roglyphs - cupped d	lepressions pecked into stationary
	The function of this object is unknown, buused in a traditional performance at a win	t a Russian source ter festival.	mentions a stone painted with red spots
References	Steffian, A. F., editor, 2018, Igaruacirpet–	-Our Way of Making	g Designs. Alutiiq Museum, Kodiak.
Last Update	05/13/2021	Updated By Ar	my Steffian

STORY ROCK



Story Rock from Karluk One (AM193).

Unmodified Cobble Tools

This group of cobble tools includes pieces of naturally occurring stone employed in tool making (Table 5.2, Figure 5.5). These pieces are not modified before use, but they are typically altered from use. Hammerstones are a common example. Alutiiq craftspeople selected water-rounded beach cobbles of greywacke to use in chipping and pecking other types of tools. Often, these cobbles show battering at their ends or along their edges, indicating they were used to break apart chert nodules or greywacke cobbles. Another common find are pieces of stone that have been worn by abrading—chunks of fine-grained rock like siltstone and sandstone that illustrate tools were rubbed against their surfaces to shape and sharpen.

Sometimes pieces of unmodified stone will not show use-wear. These may be intended or lightly used tools. However, their presence in an archaeological site, out of their naturally occurring context, indicates they were carried to the location for a purpose. We record such pieces as tools based on knowledge of their used equivalents. For example, a piece of pumice that does not show signs of abrading is classified as an abrader based on its assumed purpose.



Figure 5.5. Examples of unmodified cobble tools.

Pigment Grinders Hone Gaming Balls



English Names	Abrader	Alutiiq Name	s Rasqaq—hollowed one
Industry	Other Inorganic Activity Manufact	uring Fu	nction Finishing the surface of an object
Common Materials	Pumice, Scoria, Sandstone		
LxWxD (cm)			
Tradition	🗹 Ocean Bay 🛛 🗸 Kachemak	🖌 Koniag	Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Old Karluk, Amak	Site, Uyak Site
Pescription	Abraders are pieces of gritty stone, usu to smooth the surface of objects. These They are irregularly shaped and variabl Pumice pieces that have been used for wears down quickly. Sandstone pieces show two types of w grooves, where an object like a needle, object creating channels in the material rectangular from heavy use.	ally sandstone, pun e tools are common e in size. abrading will displa ear. Some are dishe an awl, a harpoon, . Sometimes pieces	hice, or scoria, that were used like sandpaper and found throughout the prehistoric record. y one of more flat surfaces, as the material ed from sanding. Others have distinct a shaft, etc. has been rubbed against the of sandstone will become faceted or even
Last Update	05/22/2021	Updated By	Amy Steffian

Alutiiq Technological Inventory—Unmodified Cobble Tools

ABRADER

Left: Abraders, Old Karluk (AM258); Right: Pumice and scoria abraders, Amak Site (AM544)



Large sandstone abrader, Uyak site (AM3)





English Names	Burnishing Stone	Alutiiq Names	Rirsuuteq
Industry	Other Inorganic Activity Manufacto	uring Fu	nction Finishing the surface of an object
Common Materials	Banded chert, greywacke, slate		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 📄 Kachemak	V Koniag	Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Karluk One	
Description	These artifacts are typically made of wa green to grey stone. They fit nicely in th —objects used to smooth the surface of scratching) the grain of the material, or these stones often exhibit battering from hones from burnishing stones and they These tools are found in the Koniag tra Mission of the store of the stor	ater worn pebbles of ne hand and are obl f caved bone and we used as a hone to p n light use as a ham were both probably dition assemblages.	a very smooth, distinctly banded, olive ong. They are thought to be burnishing tools ooden objects by flattening (but not ut a final edge on a cutting tool. The tips of merstone. It is impossible to differentiate used inter-changeably.
Last Update	05/22/2021	Updated By	Amy Steffian

BURNISHING STONE





Burnishing stones from Karluk One (AM193)



English Names	Gaming Ball	Alutiiq Names	Mayaciingcuk
Industry	Pecked Cobble Activity Gaming	Fund	ction Game piece
Common Materials	Greywacke, granite, clay		
LxWxD (cm)	ca. 4cm in diameter		
Tradition	🗌 Ocean Bay 🛛 🖌 Kachemak	✓ Koniag	☐ Alutiiq
Miniature	○ Yes Example Sites Found	Karluk One, Flies an	nd Grass
	No/Unknown		
Description	Gaming balls are spherical pieces of ste yaamaq or kakangaq. They tend to occ spheres of greywacke and granite—wa small number of these pieces are molde unfired. They are lumps of clay made in clay to make it maleable. There is no ev	one or clay thought to ur in archaeological si ter worn stones likely ed clay. The clay exat to balls and dried. Cr vidence of temper.	have been used in a tossing game—like ites in clusters. Most are unmodified collected from the beach. However, a mples are also spherical and appear raftspeople probably added water to the
l act lindate			
Last update	05/09/2021		mv Steffian

Gaming Balls from Karluk One.





English Names	Hammerstone	Alutiiq Names	Mulut'uuk; MuRut'uuk — Hammer	
Industry	Chipped Stone Activity Manufacturing Function Hammer			
Common Materials	Slate, greywacke, metatuff, rhyolite, gra	nite		
LxWxD (cm)				
Tradition	🗌 Ocean Bay 🔄 Kachemak	🗌 Koniag	☐ Alutiiq	
Miniature	○ Yes Example Sites Found ○ No/Unknown	Old Kiavak, Kumluk	, Karluk One, Salonie Mound	
Description	Alutiiq hammerstones are generally bea classified according to size, shape, and hammerstones in different stone working knapping, and net sinker notch creation	L ch worn cobbles with use wear. We recogi g industries—slate w	n at least one battered edge. They are nize four types based on the use of orking, cobble tool production, flint	
	 knapping, and net sinker notch creation. (1) Large cobbles are used as hammerstones for working greywacke cobbles and creating spalls. (2) Small round hammerstones were used to chip cryptocrystalline rocks. These tools often who battering on the end. This class can overlap with the large hammerstone used to break apart cobbles. (3) Oblong, rod like hammerstones were used to break slate as a first stage in making ground stone tools (preform shaping) and may also have been used as tools for pecking cobbles. These hammerstones usually have battering at the tips – or just down from the tip on the side . (4) A less common types of hammerstone was used to notch beach pebbles to make net sinkers. These are thin slate or greywacke beach shingles with battering wear along the thin edge. However, given the relatively few hammerstones found at these sites that are capable of creating a thin notch most net sinkers were probably created by battering the notch of one netsinker against the notch of another. (5) The final hammerstone category is used for bipolar reduction (either red ochre nodules, slate or chalcedony). It is a slate or grewacke cobble that is flat on one side – in the middle of the flat side there are battering marks. Obviously the hammerstone was used to pound something – probably a piece of slate to create thin sheets of slate suitable for the production of ground slate tools, or, possibly in a late prehistoric site, a chalcedony nodule to create sharp shards. 			
References	I his manual			
Last Update	05/22/2021	Updated By	my Steffian	

HAMMERSTONES



Small round hammerstones for flint knapping from Old Harbor (AM711) and Old Kiavak (AM597)



Large greywacke hammerstone for cobble working from Salonie Mount (AM535) – battered on end and side



Oblong greywacke hammerstone for slate working (AM711)



English Names	Hearth / Box Slab	Alutiiq Names
Industry	Other Inorganic Activity Cooking/Storag	ge Function Building household features
Common Materials	Slate	
LxWxD (cm)		
Tradition	✓ Ocean Bay ✓ Kachemak	Koniag 🔄 Alutiiq
Miniature	 Yes Example Sites Found Set No/Unknown 	tlement Point, Flies and Grass, Uyak Site
References	Alutiiq craftsmen used Kodiak's sturdy, wide occurring slabs for a variety of building purper although a few may display some evidence of to line floors, build storage boxes, create head burial or cache pit. They are found in sites da historic period. Slate slabs have not typically been collected Alutiiq Museum's collections—for example, a	by available slate as a building material, employing naturally oses. These slabs are typically thick and untrimmed, of shaping through rough chipping. These slabs were used arths and slate slab feature, and even sometimes cap a ating from the middle of the Ocean Bay traditions to the by archaeologists, but there are some examples in the a slate slab storage box from Settlement Point.
	Association, Anchorage.	
Last Update	05/29/2021	Updated By Amy Steffian

HEARTH / BOX SLAB



Slate slabs lining a hearth at the Flies and Grass site (KAR-276; AM571).



Slate slab box with a two-piece lid from Settlement Point (AM33)



English Names	Hone	Alutiiq Names	Ipegca'isuuteq, Ip'gca'isuun
Industry	Chipped Cobble Activity Manufactur	ng Func	tion Tool sharpening
Common Materials	Greywacke, Granite, Slate		
LxWxD (cm)			
Tradition	🗌 Ocean Bay 🛛 🖌 Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	Yes Example Sites Found	Karluk One	
	No/Unknown		
Description	These common tools are used to shape a typically long, narrow, waterworn cobbles fit nicely in the hand. Some show use we been used to abrader other tools. Hones abrading. There is another, distinctive typ shape (see ground stone).	and sharpen the edg of greywacke or gra ear—striated or polis made of softer mate e of hone - slate rod	es of ground stone tools. They are anite—unmodified rod-shaped pieces that hed areas on the surface where they have rial like slate may exhibit facets from s that appear to have been ground to
References	Knecht, Richard A., 1995, The Late Preh Archipelago from 1200–1750 AD. PhD di	story of the Alutiiq P ssertation, Bryn Mav	eople: Culture Change on the Kodiak vr College, Bryn Mawr, PA.
Last Update	05/22/2021	Updated By Ar	ny Steffian

HONE



Hones from Karluk One (AM193)

Alutiia	🌯 Alutiiq Technolo	рс
ARCHAEOLOGICAL REPOSITORY	Artifact Class Summary	/ Sł
English Names	Line Weight / Jig Weight	Alι
Industry	Ground Stone Activity Fishing	
Common	Slate, sandstone	

ical Inventory

heet

nglish Names	Line Weight / Jig V	Weight	Alutiiq Names	; Kicauteq, Kitsuuteq
Industry	Ground Stone	Activity Fishing	Fu	nction Line weight
Common Materials	Slate, sandstone			
LxWxD (cm)				
Tradition	Ocean Bay	Kachemak	Koniag	☐ Alutiiq
Miniature	O Yes Ex	xample Sites Found	Outlet site, Karluk	One, Settlement Point
	No/Unknown			
Description	Another type of lin through the center	e weight, found at Kar	luk One, is a small g of birch bark to he	greywacke pebble with a natural hole Ip secure a line.
				Deceles Culture Oberge on the Kediek
References	Knecht, Richard A Archipelago from	, 1995, The Late Preh 1200–1750 AD. PhD d	iistory of the Alutiiq issertation, Bryn M	People: Culture Change on the Kodiak awr College, Bryn Mawr, PA.
Last Update	05/31/2021		Updated By	Amy Steffian

LINE WEIGHT

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





English Names	Ochre Grinder	Alutiiq Names	Uiteram Ciiwia
Industry	Other Inorganic Activity Manufacturi	ng Func	ction Grinding pigment
Common Materials	Greywacke		
LxWxD (cm)			
Tradition	🗹 Ocean Bay 🛛 🗹 Kachemak	🗌 Koniag	☐ Alutiiq
Miniature	Yes Example Sites Found	(OD-1130	
	No/Unknown		
Description	Pigment grinders are two-piece tools. The which pigment was ground with hand-hele grinders range in size from a round pebbl of these tools who extensive use-wear fro abrasion marks from grinding. Large, gre and typically have at least one flat surface and bottom, making the tool look a bit like Transitional Kachemak deposits at KAR-0 were rolled, perhaps with the palm, to cru that may represent damage from breaking Pigment - e.g., ochre, molybdenite - may from Ocean Bay tradition sites.	ey include slabs of h d cobbles (a grinder) e that fits in the pain m grinding. The sla ywacke grinders are a sometimes, there a hockey puck. Sn 065 have grounding sh small pieces of p g apart a piece of pig be stuck to the cobb	ard stone like greywacke (a tablet) on) of greywacke or granite. The hand held in to a hand-size beach cobble. Both part ib (tablet) often has a dished area and e characteristic of the Ocean Bay tradition are opposing ground surfaces (e.g., top nall, spherical grinders from the around their circumfrance, suggesting they igment. Some of these also have pitting gment for grinding. oles. This is particuarly true of examples
References	Steffian, Amy F., and Patrick G. Saltonsta 2014 Prehistoric Settlements of the Midv the Old Harbor Native Corporation. Alutio	ll vay Bay Peninsula, (Museum and Archa	Old Harbor, Alaska. Report prepared for aeological Repository, Kodiak.
Last Update	05/22/2021	Updated By Ar	ny Steffian

Alutiiq Technological Inventory—Unmodified Cobble Tools

PIRGMENT GRINDER



Ochre Grinder (base and handheld grinding stones) from Old Harbor area (AM711)



Pigment grinders (base and handheld grinding stone) from KAR-065 (AM1004)



English Names	Pigment Stone		Alutiiq Name	es 🛛
Industry	Other Inorganic Activity	Manufacturi	ng Fi	unction Creating paint
Common Materials	Ochre, Molybdenite			
LxWxD (cm)				
Tradition	🗹 Ocean Bay 🛛 🗸 Kac	hemak	✓ Koniag	Alutiiq
Miniature	○ Yes Example Si	tes Found	Jyak site, Old Ka	rluk
	No/Unknown			
Description	Small pieces of ochre, moly ground pigment appear in si appear faceted if they have l chalk.	odenite and o tes. They are been ground	ther soft material typically small w on multiple sides	s were ground to create paint. Pieces of ith one or more ground surface. They can . They look like discarded pieces of sidewalk
References	Steffian, Amy F. (editor), 201	8, Igaruacirp	et—Our Way of N	Making Designs. Alutiiq Museum, Kodiak.
Last Update	05/29/2021		Updated By	Amy Steffian

WHETSTONES



Piece of ground mineral (Molybdenite?) from Old Karluk



English Names	Whetstone	Alutiiq Names	Minguutaq, Ipegucaq—something to make
Industry	Other Inorganic Activity Manufactur	ng Fun	ction Sharpening slate tools
Common Materials	siltstone, sandstone, greywacke, slate		
LxWxD (cm)			
Tradition	🗸 Ocean Bay 🖌 Kachemak	🖌 Koniag	☐ Alutiiq
Miniature	 Yes Example Sites Found No/Unknown 	Outlet site, AFG-215	5, Rolling Bay, and many others
Description	Whetstone are sharpening tools. Alutiiq of used to abrade the edge of a slate point of examples are tabular - flat, roughly rectan evidence of grinding (smooth surface, fin bottom. It is possible that these stones we were selected for their size (hand-sized of are bar-shaped piece of sandstone. Unlike abraders, which are typically rubber rubbed again the whetstone. These are common tools found in the arc Koniag tradition. This is the period that co	examples are typica or knives to create a ngular pieces of pale e striae) on at least ere purposefully sha r smaller) and shap ed against a tool to s haeological record f bincides with substa	Ily made of fine grained stones that are a sharp, beveled working edge. Many e greenish siltstone that have clear one surface and often both the top and aped, but it appears more likely that they ed as a result of use. Some whetstones sand it (like sand paper), the tool edge is from about 5500 years ago through the ntial slate working.
References	Clark, Donald W., 1974, Koniag Prehisto W. Kohlhammer, Stuttgart. (see page 93)	ry. Tubinger Monogr	aphien zur Urgeschichte, Band 1. Verlag
Last Update	05/22/2021	Updated By	my Steffian

WHETSTONES



Whetstone from the Old Harbor Area (AM711)



Whetstone from the Outlet Site