

## CHAPTER 8. CARVED ORGANICS—*K'LINGASQAQ*

### Organic Preservation in Kodiak's Archaeological Record

Organic artifacts are made from the byproducts of living organisms—bone, ivory, tooth, horn, antler, amber, wood, bark, baleen, shell, hair, horn, grass, sinew, etc. In classical Alutiiq society, most tools were made from organic materials, as these materials are both plentiful and malleable. Every animal harvested for food was also a potential source of raw material. Unfortunately, organic materials are not consistently preserved. Most ancestral Alutiiq sites have little organic preservation (Figure 8.1). Bits of carbonized wood, the charcoal created by ancient campfires, are the only materials found. This is because Kodiak soils are made of weathered volcanic ash, an acidic material that dissolves organic artifacts and garbage (midden) over time.

Figure 8.1. Examples of site preservation.



Despite this general trend, there are three environments that commonly preserve organics—waterlogged deposits, shell middens, and deposits subject to high heat. A small number of sites, like Karluk One (KAR-001) and Malina Creek (AFG-005), have produced spectacular assemblages of wood and fiber artifacts because their deposits were saturated with water. Here a lack of oxygen combined with Kodiak’s cool temperatures prevented even delicate organics from rotting (Figure 8.1). More commonly, organics are found in sites with shell. The calcium carbonate from discarded clam, mussel, and urchin shells moderates soil acidity and preserves bone, antler, and ivory (Figure 8.1). Another way that bone can be preserved is when it is burned at high heat and calcified. Calcified bone is white and brittle and sometimes found at sites without any other form of preserved organics. Calcified bone tends to be fragmented, occur in small pieces, and be found in association with features where burning took place, like smoking pits and hearths. Most calcified bone represents burned food remains. However, researchers sometimes find calcified bone tools (Figure 8.2).

**Figure 8.2. Calcified bone objects from the Outlet site (AM327).**



A site's age and the type of raw material used in artifact manufacture are other factors in the rate of material deterioration. For example, hard materials like sea mammal bone and antler may last thousands of years in the right conditions. More delicate materials like leather or grass decay much more rapidly. Table 8.1 provides a general review of organic raw material preservation on Kodiak based on archaeological observations.

As organic artifacts degrade with time, they are more common in younger sites. For this reason, organic tool inventories from the early millennia of Alutiiq history are less complete than those from late time periods. For instance, wood preservation is present in some late prehistoric sites, both as structural wood and as artifacts, but such preservation is rare in Kachemak

tradition deposits and has yet to be found in earlier sites. Similarly, while bone tools are frequent in Koniag and Kachemak tradition settlements, they are rare in Ocean Bay tradition sites.

**Table 8.1. Relative age of organic materials in Kodiak archaeological sites**

Material	Length of Preservation	Representative Sites
Bone, Antler, Ivory	Up to about 6500 years	Rice Ridge, Uyak, Settlement Point, Karluk One
Shell	Up to about 2500 years	Crag Point, Uyak, Little Friend, Karluk One
Bark, Wood	Up to about 1000 years	Old Karluk, Crag Point, Karluk One, Malina Creek
Baleen, Spruce Root	Up to about 600 years	Karluk One, Malina Creek
Grass, Hair, Horn, Kelp, Leather	Up to about 300 years	Karluk One

There are two broad categories of organic finds in Kodiak sites—samples and artifacts (Figure 8.3). Samples are unmodified pieces of bone, wood, shell, baleen. They represent items brought to a site as food or raw material that were discarded without modification (see Chapter 11). In contrast, artifacts are purposefully modified objects—tools, preforms, the waste created by making artifacts. Like other artifact industries organic tools include both finished tools and waste products, also known as debitage.

**Figure 8.3. Faunal sample from the Malriik site (AM821).**



There are two main organic artifact manufacturing industries represented in ancestral Alutiiq assemblages—carved organics (worked wood and boney materials) and worked fiber (weaving, braiding, cutting, sewing, wrapping). A few fragments of worked leather were recovered from the Karluk One site and represent the skin working arts. The one identifiable

piece is a painted leather mask cover (Figure 8.4). Another was represented by multiple rows of caribou incisors that were likely sewn to a belt (Steffian et al. 2015:276). Although no leather was preserved from this object, neat, parallel rows of teeth mirror women’s belts worn in western Alaska (Fitzhugh and Kaplan 1982:146). However, due to extreme rarity of sewn objects, they are not included in this inventory. At present, sewn objects of animal tissues are best studied through ethnographic collections (e.g., Crowell et al. 2001, Korsun 2010, Varjola 1990).

**Figure 8.4. Painted leather mask cover from Karluk One (AM193).**



## Carving Techniques

Carving was a daily activity in classical Alutiiq society and the way people transformed wood, bark, bone, antler, and ivory into tools and household objects. Through woodworking, Alutiiq people produced many of the objects essential for daily life and recorded their beliefs in masks, amulets, and figurines. Most tools were made by working wood and bone.

Archaeological finds reveal traditional carving techniques. For initial, rough work, craftspeople split driftwood logs open with the help of resilient bone and wooden wedges, pounded with weighty granite mauls lashed to sturdy wooden handles. The resulting planks were cut to length and shaped with a variety of stone adzes tied to handles made of flexible alder branches. Finer carving—shaping and finishing—took place with the aid of small adzes, chisels, drills, and knives. One distinctive type of knife had a rodent incisor (e.g., marmot, beaver) hafted in the side, at a right angle to the wooden handle that left distinctive narrow carving marks (Figure 8.5). Gritty pieces of sandstone helped carvers smooth the surface of objects and remove carving marks. The final step was burnishing, rubbing a smooth stone over the surface of a carving to crush the grain and creates a smooth, polished finish.

**Figure 8.5. Water scoop with marks left by an incisor carving tool, Karluk One (AM193).**



Worked bone fragments show a variety of carving techniques. As with slate working, some objects were chopped and snapped to create smaller, workable pieces (Figure 8.6). Carvers used an adze to chop away fragments around the circumference of a long piece of wood or bone, creating a sort of groove or thin area around the material. Then they applied force to the ends to snap the piece into two at the chopped location. Another technique was to groove a bone to remove slices or slivers. To do this, carvers worked with a sharp-edged stone tool to cut into bone (Margaris 2006:209-210). This bone working technique is also recorded in the assemblage of bone debitage recovered at Colony Ross. Alutiiq conscripts lived and work at this Russian outpost in northern California in the 19<sup>th</sup> century (Wake 1999:196-198).

The debitage pieces created by carving are typically categorized as worked fragments. In some cases, it is also possible to identify a carving technique—e.g., broken, chopped (hacked), shaved (finely carved), grooved and splintered (cf. Clark and Thomas 1953), ground, cut, sawed, and burnished. There are also other forces that can shape and alter bone. Animals like dogs may chew on bone. Dogs were a part of Alutiiq communities for centuries (West and Jarvis 2015) and dog chewed and/or digested bone can be hard to distinguish from a purposefully modified bone.

**Figure 8.6. Chopped and snapped bone fragments (left) and groove bone fragments (right) from the Settlement Point site, AM33. Photos courtesy of Amy Margaris.**



Another distinctive woodworking technique, paired with carving, is steam bending. Wood is a naturally elastic material that can be molded into many shapes with pressure, moisture, or heat. Alutiiq ancestors bent wood as part of making boat parts, quivers, hats, visors, mask hoops, rattles, and household containers of many sizes (Figure 8.7). This technique is widely represented in collections with wooden artifacts and illustrates the importance of bending as a manufacturing technique. Many bentwood objects are parts of larger, composite artifacts (e.g., a kayak cockpit, a rattle hoop, a vessel rim) whose other parts are made by carving. For this reason, we have not separated carved items also bent with steam into a separate category.

The first step in wood bending is to create a very thin plank of wood. In this plank, carvers sometimes cut kerfs or small notches to help the wood flex and provide space for compression along the edge as the wood bent. How did Alutiiq people bend wood hundreds of years ago? It is possible they worked with steam in a *maqiwik*, or steam bathhouse, like neighboring Yup'ik people. Many late prehistoric houses had a small, low-ceilinged room devoted to steam bathing. People carried hot rocks into these rooms and splashed them with water to create steam for washing and perhaps wood working. Steaming can also be done in pits. In southeast Alaska, carvers softened wood in pits packed with hot rocks and seaweed and then filled with water (Stewart 1984:88-92).

Figure 8.7. Bentwood vessel from Karluk One (AM193), two views.



### Classes of Carved Tools

To organize the 124 classes of carved organic items in this inventory, we divided them into broad functional groups: Collecting, Fishing, Hunting, Boating, Building, Manufacturing, Cooking & Storing, Steam Bathing, Playing, Warring, Gaming, Adornment, and Spiritual Life. These sections provide a way to group like items. Each section begins with a graphic that provides a quick visual summary of the tools in that section—as a guide to the items included. Because the preservation of organic tools is so variable, we have not attempted to create charts showing the temporal distribution of tools. Instead, we note known temporal trends in the individual tool descriptions. A few temporal trends for organic artifacts also appear in Table 2.4.

Alutiiq tools can have multiple functions and fit into multiple functional categories. For example, a comb used to straighten grass for weaving (a manufacturing aid) may also be a hair comb (an adornment item). We recognize this issue and note overlap where it is known. Additionally, there are a few wooden tools for which we have not determined a function. These are unique items that need further study (Figure 8.8).

It is also important to recognize that reusing and recycling materials is an Alutiiq tradition and a practice evident in tools assemblages. Salvaging, recycling, and reusing are essential components of Alutiiq spirituality. In the Alutiiq world, animals are smarter than people. Sea mammals, ducks, and salmon give themselves to people who must in turn demonstrate their respect. Thrift is an essential component of this relationship. By utilizing resources carefully, including every part of an animal, people show their appreciation and help to ensure a future supply of game.

This sense of thrift includes recycling. Alutiiq people are well known for reusing objects and materials. Archaeologists note this in ancient tool collections. Alutiiq craftspeople ground broken slate ulu fragments into lances and arrows, created fire starters from old kayak parts, and used the broken bases of wooden containers as cutting boards. Rather than discarding valuable material, craftspeople reused it to create another item. In this circumstance we classify the object by its most recent use and note earlier uses in catalog comments. The notes are also a good place for observations like repairs, paint, carved decoration, a refit with a fragment of another object, and other unique characteristics (Figure 8.9).

Figure 8.8. Some wooden object of unknown function.





Figure 8.9. Examples of unique characteristics on carved objects from Karluk One (AM193, wood objects), and the Uyak Site (AM3, bone harpoon – bottom photo).

