

The Alutiig Seasonal Cycle



- Inside the smallest ring: family activities around the year.
- Inside the middle ring: plants and animals gathered throughout the year.
- Inside the largest ring: the types of animals hunted at different times of the year.
- Outside the largest ring: the locations and conditions of various plant and animal resources during the yearly cycle.

Taquka'asinaq – THE GREAT BEAR



Ivory pin with a bear carving, Three Saints Site, Kodiak Island.

The brown or grizzly bear is the largest land mammal in North America. The Kodiak Archipelago is home to more than 3,000 of these enormous creatures, which have long been a source of food and materials for Alutiiq/Sugpiaq people. Bears were once the only large land mammal available to Kodiak hunters until deer, elk, mountain goats, and reindeer were introduced in the 20th century. In addition to meat and fat, bears provided gut for waterproof clothing, sinew for thread, hair for decorating clothing, bone for tools, teeth for jewelry, and hides for bedding. Inside the warmth of a sod house, people sat on bear hides to sew, make tools, and play games. And in the evening, families wrapped themselves in the plush fur for sleeping.

In classical Alutiiq society, people hunted bears in winter and spring, but not during the salmon season, when their meat tasted strongly of fish. Before the introduction of firearms, Alutiiq hunters harvested bears with bows and arrows, slate spears, snares, and deadfall traps. Some were killed in their dens. Others were taken with traps placed in streams, or ambushed along habitually used trails.

The Aliaskans [people of the Alaska Peninsula], like the Koniagas [people of Kodiak Island], always send their best hunter alone against bears. He takes the bow and just two stone-tipped arrows ...

G. Davydov, Russian naval officer, 1802-03

Bear hunting required great caution. Men cleansed themselves in a steam bath before the hunt, wore clean clothes to hide their smell, and never bragged about their kills. A bear might be listening!

In the early 20th century, hunters from around the world flocked to Kodiak in search of trophy brown bears, and Alutiiq men became famous for their expertise as guides. In the 1940s, however, much of the Kodiak Island became a National Wildlife Refuge, and bear hunting was seriously restricted. Some of these restrictions were lifted in recent years, allowing Alutiiq people to hunt bear for subsistence purposes once again.

LEARN MORE:

Kodiak Island and its Bears, 2004, by Henry Dodge. Great Northwest Publishing, Anchorage.

The History of Bears on the Kodiak Archipelago, 2003, by Larry Van Daele, Alaska Natural History Association, Anchorage.

Saqullkananek Pililuni – BIRDS: AS RESOURCES



Birds are an abundant and valuable natural resource in the Kodiak Archipelago, as sources of both food and raw material. Alutiiq/Sugpiaq people hunted marine birds, waterfowl, and even raptors for their meat, skins, feathers, beaks, talons, and bone. Spring bird eggs have long been a favorite fresh food.

Alutiiq people harvested eagles and geese with fish-baited snares set in feeding areas. They hunted ducks and seabirds from kayaks using special bird darts, or on land with bows and arrows, or braided sinew nets. Seabirds could also be collected at coastal rookeries. Using ropes made of sea mammals skin, hunters repelled down the rocky cliffs, snatching seabirds from their roosts.

Although birds contributed less to the annual diet than foods like salmon or sea mammals, they were of great economic importance. With few land mammals in the Kodiak Archipelago, bird skins were the primary material for clothing. Alutiiq women fashioned long, hoodless parkas from the hides of puffins, cormorants, and even eagles. Alutiiq people did not tan bird skins, but washed, scraped, and chewed the pelts to clean and soften them for clothing. The number of pelts needed for a parka varied by species and garment design. One source reports that it took 150 cormorant neck skins to create a ceremonial parka. Another notes that 10 eagle skins could be made into a coat.

Bird feathers, *culut*, were also used to fletch arrows, stuff mattresses, make brooms, start fires, and decorated a variety of objects, from gut skin raingear and basketry, to hunting hats and ceremonial masks.



Wooden bird carving, AD 1400–1750, Koniag, Inc. Collection, Karluk One Site.



Petroglyph from Cape Alitak, Kodiak Island.

TUNNGAQ – PUFFIN

There are two varieties of puffins—*tunngat*—in the Kodiak region: the tufted puffin (Latin: *Lunda cirrhata*) and the horned puffin (Latin: *Fratercula corniculata*). These stout little birds live in near shore waters, nesting on rocky cliffs. Puffins are small, weighing up to two pounds. Although Alutiiq people ate their meat—which is reported to taste like tuna fish—they also used puffins for raw material. Puffin skins made warm, water-resistant parkas; puffin bone could be carved into small tools like needles and awls; and their bright orange beaks created rattles and decorated clothing.

Pisucillpet – HUNTING TRADITIONS



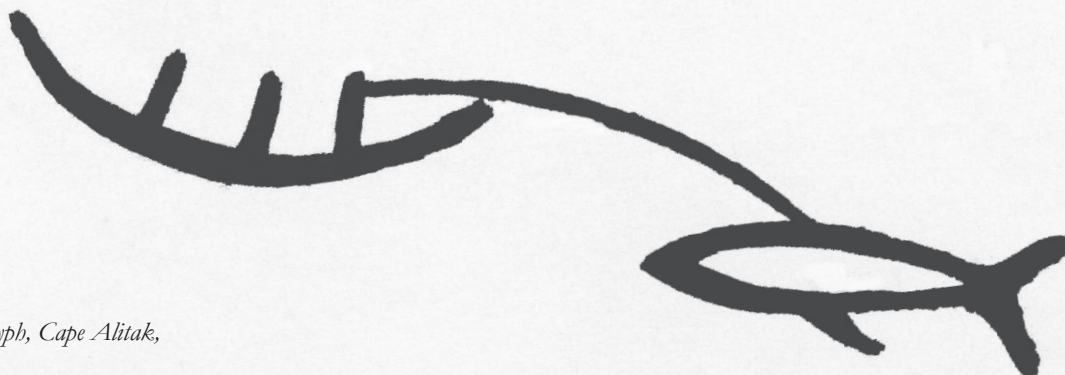
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THEY HUNT WHALES WITH POISON SPEARS.

Among the Alutiiq/Sugpiaq people, whaling was a dangerous activity, shrouded in secrecy and steeped in magic. Whalers were a special class of men, who lived apart from everyday society. They were considered dangerous, more like spiritual entities than human beings, for their ability to land enormous sea mammals. The title of whaler was hereditary and passed through certain elite families. Each whaler maintained a secret cave where he stored hunting gear and prepared for the chase. Here he acted out hunts with model kayaks and prepared deadly hunting poisons.

The pulverized root of the monkshood plant (Latin: *Aconitum delphinifolium*), an herb with many blue, helmet-shaped flowers, was a central ingredient in these poisons. This plant contains a powerful toxin that can paralyze the nervous system and dangerously lower body temperature and blood pressure.

Whalers added spiritually powerful human fat to this chemically potent plant. On Kodiak, fat was taken from the mummified remains of whalers, or stolen from the remains of a male child. When spread on whaling lances, this magical poison was strong enough to paralyze small whales and keep them from fleeing into open water.

In addition to poisoned spears, whalers carried amulets. Talismans included eagle feathers, bear hair, berries, roots, and luminous green stones. These charms were collected privately and each hunter stored his charms in a small bag or box. A story from Afognak Island tells of the great success of a whaler who found a green stone. However, when the hunter fell in love and lost the stone, he could no longer kill game. He and his beloved died shortly afterwards.



*Whaling petroglyph, Cape Alitak,
Kodiak Island.*

Arwarsucipet – WHALING TRADITIONS



The Gulf of Alaska lies on the migratory path of the Pacific Ocean's great baleen whales. Blue, fin, sei, humpback, and gray whales swim by Kodiak each year on their way to and from feeding grounds in the Bering Sea. These annual spring and fall migrations brought some species within reach of Alutiiq/Sugpiaq kayaks. Although challenging to harvest, they were an important subsistence resource. Even a small animal could feed a community for weeks. Whales also provided bone for tools, baleen for baskets, sinew for thread and cordage, and flexible membranes for clothing.

Historic accounts reveal that whalers were a select group of powerful people. Hunting was done from kayaks by men armed with slate lances dipped in a potent nerve poison. Hunters focused on the animals passing closest to shore, particularly those that stopped to rest and feed in coastal fjords. Gray whale cows with their newborn calves, humpbacks, and fin whales were among those targeted, particularly the smaller, more easily killed animals. Once speared, the animals were left to die and wash ashore, a process that took several days. Dead whales were given a drink of fresh water and then butchered on the beach. People anointed themselves with fat and blood to honor the animal and show their gratitude for its sacrifice. This ensured future whaling success.



*Whale petroglyph from Cape
Alitak, Kodiak, Island.*

A WHALING SONG

*After I have killed you, do you want to see me dance?
I would not feel bad if the whale dived with me!
I would not let the whale dive with me!
After I have killed the whale, he will feel fine with all
the people around here!*

Sung by Prince William Sound hunters after spearing a whale.
From the *Chugach Eskimo*, by Kaj Brisket-Smith, 1953:35.

LEARN MORE:

Koniag Eskimo Poisoned-Dart Whaling, 1994, by Aron Crowell. In, *Anthropology of the North Pacific Rim*, edited by W.W. Fitzhugh and V. Chaussonnet. Pp. 217-242. Smithsonian Institution Press, Washington, D.C.

Prehistoric Use of Cetacean Species in the Northern Gulf of Alaska, 1994, by Linda Yarborough. In, *Hunting the Largest Animals*, edited by Allen P. McCartney, Pp. 63-81. Canadian Circumpolar Institute, Edmonton.

Caguyaq – HUNTING HAT



Wooden hats were an essential piece of gear for Alutiiq/Sugpiaq hunters pursuing sea mammals in Kodiak's stormy waters. They transformed kayakers into magical beings with killing powers, and shielded their eyes from sun, rain, and sea spray.

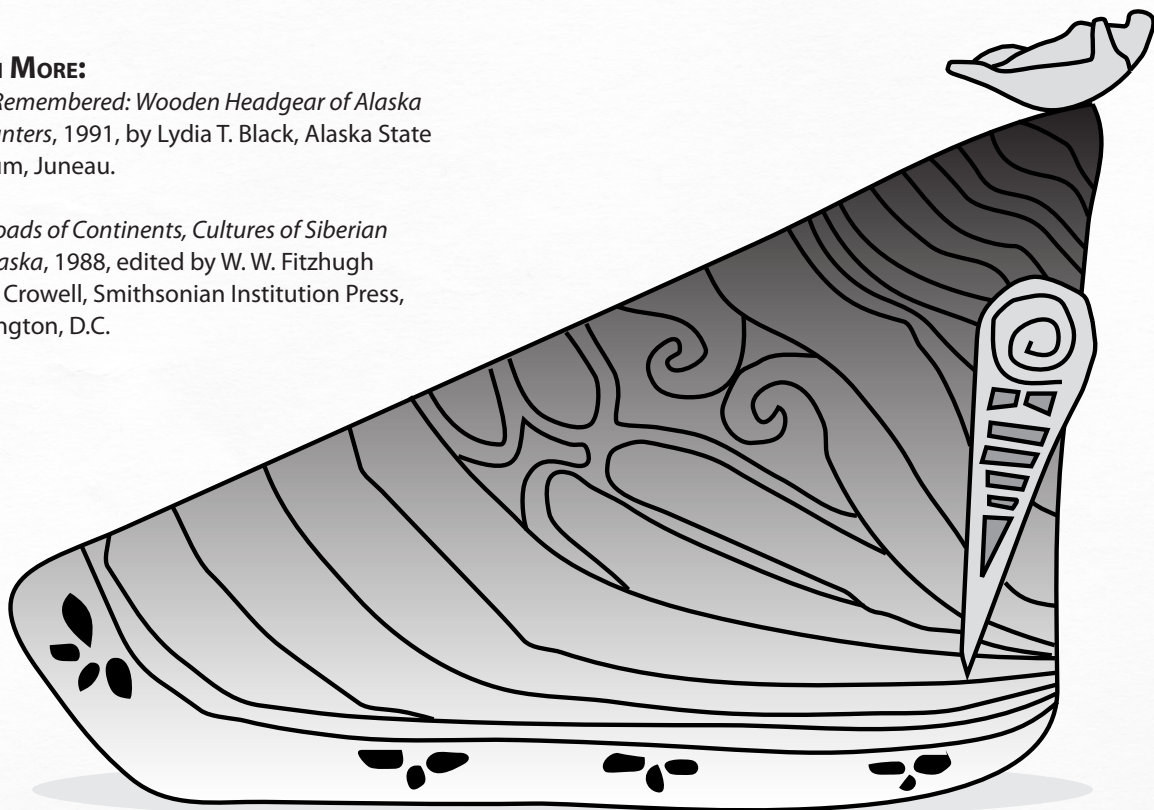
Alutiiq, Unangâ, and Yup'ik peoples, along the Gulf of Alaska and Bering Sea coasts, wore similar hats. There were three common styles, a cone-shaped, closed crown hat (see below); an open-crown visor; and a rounded helmet. Hats and visors were made by carving a single piece of wood to a thin layer that was carefully bent to shape with steam. Helmets were hollowed from a single piece of wood and were often decorated with the face of a seal.

Each hat was a work of art, reflecting the owner's personality, achievements, and status. Hats were brightly painted with geometric designs, images of sea mammals, and hunting scenes, and elaborately decorated with ivory carvings, beads, woven tassels, feathers, and sea lion whiskers. Each element was rich with symbolism. Some motifs recounted great chases; others referenced helpful bird or animal spirits. Alutiiq Elders recall that hats were embellished over the course of a hunter's life. Elements were added or changed to reflect individual experiences. As such, each hat was highly personalized. Other hats were woven from spruce root, and were similarly adorned.

LEARN MORE:

Glory Remembered: Wooden Headgear of Alaska Sea Hunters, 1991, by Lydia T. Black, Alaska State Museum, Juneau.

Crossroads of Continents, Cultures of Siberian and Alaska, 1988, edited by W. W. Fitzhugh and A. Crowell, Smithsonian Institution Press, Washington, D.C.



Aaquyaq & Arhnaq – RIVER OTTER & SEA OTTER



Kodiak is home to two varieties of otter, the *arhnaq* or sea otter (Latin: *Enhydra lutris*), that inhabits coastal waters, and the *aaquyaq* or river otter (Latin: *Lutra canadensis*), that lives primarily in freshwater lakes and streams, but ventures into the ocean to hunt. Alutiiq/Sugpiaq hunters continue to pursue both animals for their plush fur, which they make into clothing. Otter fur was once a preferred material for elaborately decorated ceremonial parkas. Today, people make warm slippers, hats, mittens, and bed covers from otter pelts.

Alutiiq hunters traditionally captured river otters in deadfall traps weighted with large rocks, or with snares made of flexible sticks. In contrast, they hunted sea otters in kayaks, with groups of men working together. Hunters encircled an animal, shooting at it with bone darts each time it surfaced. Air bubbles indicated the otter's movements. When the animal was exhausted, they captured and clubbed it to death to protect its hide from further damage. Hunting magic was an important part of the chase. Hunters tied amulets of eagle down and red ochre inside their kayaks and dressed neatly out of respect for the animal. Freshly killed sea otters were taken to shore, skinned, given a drink water, and their bones buried or returned to the sea. This act released the animal's spirit, ensuring its reincarnation and eventual return to the hunter.

Alutiiq people have many stories about the playful otter. One legend explains that the sea otter was originally a man. While collecting chitons, he was trapped by an incoming tide. To save himself, he wished to become an otter. His transformation created all otters. Another legend explains the otter's use of both sea and land. When the spirits of the land and sea divided the animal, the otter was left behind. At that time he had a short tail. While quarreling over the otter, the spirits tugged on his tail until it stretched. The otter cried, "Please let me go! I will stay with both of you."

LEARN MORE:

A Time to Dance: Life of an Alaska Native 1988, by Mike Rostad and Larry Matfay, A.T. Publishing, Anchorage.

Aaquyat wamtaartut. – RIVER OTTERS ALWAYS PLAY.

Arhnat pugtataarut. – SEA OTTERS FLOAT.



Otter pictographs (rock paintings) from Kachemak Bay, Kenai Peninsula, Alaska.

Iqallugsurluni Imarmi – OCEAN FISHING



The ocean surrounding Kodiak contains large populations of marine fish. Halibut, cod, and other fish breed and winter in the region's productive, deep waters. As winter storms ease and the weather warms, these fish move into shallow coastal waters to feed. Alutiiq/Sugpiaq fishermen take advantage of this shift to harvest fresh food for their families. Halibut and cod are predictable, delicious sources of spring meals. As in the past, Alutiiq people enjoy marine fish both fresh and dried. Families cut fish into strips and air-dry the meat to eat all year.

Harvesting begins in April and continues through the summer. Today people catch bottom fish with handheld jigs, fishing poles, and commercial gear. In the past, fishermen in skin-covered kayaks used wood and bone fishing rigs baited with clams to lure marine fish. Every rig had a spreader, a wooden bar with a bone hook suspended from each end. At the center of the spreader, fishermen secured a stone weight designed to sink the rig to the ocean floor.

What did Alutiiq fishermen use for line? The thin stems of kelp plants can grow up to one hundred feet long and will stretch dramatically before breaking. Alutiiq craftsmen took advantage of kelp's elasticity to create fishing lines that reached the ocean floor and held struggling fish. When a fish bit a hook, a fisherman pulled it to the surface, killed it with a small wooden club, and tied it to his kayak for the trip home.



Ocean fishing rig. Koniag, Inc. Collection, Karluk One. AM193.

In the historic era, metal hooks and monofilament replaced bone barbs and kelp line. However, the halibut fishing tackle used by anglers today is very similar to the gear Alutiiq ancestors used to pull fish from Kodiak waters.

Iqallugsurluni Kuigmi – RIVER FISHING



Kodiak is home to five varieties of Pacific salmon. Almost every stream has at least a small run of pink salmon, and the region's rivers support spectacular numbers of pink, red, silver, dog, and king salmon. Many waterways are also home to Dolly Varden char, rainbow trout, and steelhead. Because these abundant, widely available, nutritious fish can be harvested in large quantities and stored for winter food, they have fed Alutiiq/Sugpiaq families for thousands of years.

Kodiak's earliest salmon fishermen speared fish with long lances ground from slate. Their stream-side camps are filled with pieces of worked slate, lance fragments, and lance sharpening tools. People probably stood in the water to spear individual fish as they swam upstream.

About 4,000 years ago, Alutiiq ancestors began harvesting salmon with nets. Their settlements lie beside deep river channels, and they are filled with thousands of small, notched stones—oval, waterworn beach cobbles with a chip in each end. These stones were net weights, like the lead line on a modern fishing seine. People tied them to the bottom of a net to sink it and keep it open in the water. Why did Alutiiq people begin using nets? Archaeologists think Kodiak's population was rising. There were more people and fewer places to move. Harvesting larger quantities of salmon helped Alutiiq ancestors feed their communities.

About 900 years ago, Alutiiq people intensified their use of salmon again. They built large villages beside productive salmon streams, and stacked stones in nearby waterways to create barriers that captured fish. At the mouths of streams, people built fish pens. Fish entering streams were trapped in these pens when the tide went out. In at least one river, people built weirs—v-shaped walls of stacked stones. Fish swam inside and could not escape. Like their ancestors, Alutiiq fishermen of this time speared salmon, but they used a special fish harpoon. With these technologies, they harvested enormous quantities of fish for food, trade, and winter festivals.



Slate Lance



Notched Stone Net Sinker



Fish Harpoon Valves

Naut'staat Alutiit'stun – PLANTS IN ALUTIIQ SOCIETY



Alutiiq/Sugpiaq people are best known for their use of marine resources—sea mammals and fish harvested with complex technologies like kayaks, harpoons, and nets. Around Kodiak, protein and fat are the central components of a traditional diet, and carbohydrates are eaten in smaller quantities. Yet plants have always been an essential source of food, raw material, medicine, and fuel. Alutiiq people still transform trees, shrubs, and herbs into everything from a shelter to a salad.



Clyda Christensen with a handful of spring greens. Photograph by Priscilla Russell. KANA Collection.

All members of Alutiiq communities participate in plant collecting, although men and women harvest different species.

Men procure plants for raw material—particularly the wood used to fuel fires, smoke fish, and build houses. Women collect plants primarily for food and medicine. Berry picking and vegetable harvesting are often conducted by women and their children. Children learn to respect plants. Overpicking, breaking branches, stepping on plants, or eating too much while you are collecting are considered poor etiquette. Moreover, families own certain collecting spots that they visit each year.

Although most people think of summer as the time to collect plants, Alutiiq people harvest plants throughout the year. In spring, as the landscape begins to green, people gather vegetables like goose tongue, beach lovage, or hemlock parsley from the beach. In the past, this was also the time when fresh, dry grass was cut to provide a clean cover for household floors and sleeping areas. By midsummer, berry picking supplements vegetable collecting. Berry harvesting continues into fall. People often wait to pick certain varieties until October or November, when the first frost sweetens the fruit. In fall and winter, storms

replenish the supply of driftwood collected for fuel. And in late winter, Alutiiq people gather kelp and seaweed to eat, particularly when other sources of fresh food are hard to obtain.

Plants are also an important source of raw materials. Plants once provided lumber, line, lashing material, weaving material, insulation, bedding, and even pigment for paint. Plants are also a central source of medicine. Healers use herbal remedies to treat everything from scrapes and swellings to more serious illnesses like fever, arthritis, and respiratory problems. Carefully collected herbs are used both fresh and dry. They are employed in washes and poultices, or steeped in hot water to create soothing teas. Others are applied in the sweat bath—where steam releases their rejuvenating powers. Healers often offer a small gift to the plants they collected, to help ensure the potency. A strand of thread, a match, or bit of tobacco may be left as a thank you and sign of respect. Gatherers also leave the root system of a plant intact whenever possible to help guarantee future harvests.



TAKE A PLANT WALK

Download the free Alutiiq Plants app to your iOS or Android devices to learn more about Alutiiq plantlore. Or visit the Alutiiq Museum's online plant gallery at <https://alutiiqmuseum.org/learn/plant-gallery>.

Naut'staat Neq'rkaqluki—

PLANTS AS FOOD

Plants remain an important subsistence food in Alutiiq/Sugpiaq communities. Although they are taken in smaller quantities than fish or sea mammals, Alutiiq families look forward to the first green vegetables of spring and to the sweet juicy berries that ripen with summer. Plants are also used as seasoning. Petrushki (beach lovage—Latin: *Ligusticum scoticum*) is a favorite addition to baked salmon. To extend the availability of plant foods, Alutiiq people once stored harvested plants in seal oil in seal stomach containers. They kept others in grass-lined pits or hung them from household rafters to dry. Today, families collect plants to eat fresh, store in the freezer, and make jam and jelly. Here are two favorite Alutiiq plant recipes:

CIITAQ (CHEEDUK) "Something mashed"

courtesy of Patricia Mullan Kozak

1 gallon **salmonberries**
 $\frac{3}{4}$ cup **sugar** (adjust this amount to your taste)
evaporated milk (if desired—it wasn't true *cheeduk* to my dad if it didn't have evaporated milk in it.)

Using a potato masher, mash the berries until they are well crushed and you have a lot of liquid (berry juice). Add sugar and stir until dissolved. Use a soup ladle to put into individual bowl. Add milk if desired. Enjoy!



Salmonberries ripen in the sun. Photo by Sven Haakanson, Jr.

NASQULUK Pickled Bull Kelp

4 cups rings or rectangles cut from **kelp stem**
 $\frac{3}{4}$ cup white **vinegar**
2 $\frac{1}{2}$ cups **sugar**
1 Tbsp **mixed pickling spice**
1 tsp **whole cloves**

Remove outer skin of kelp with peeler and slice into rings or rectangles. Soak the kelp in freshwater for three days, changing the water several times a day to remove the salt. Enclose the spices in a cheesecloth bag and place in simmering vinegar and sugar for five minutes. Remove spices and pour the hot syrup over the kelp. Let stand overnight. Next day, drain off syrup, heat to boiling, and pour over kelp again; let stand overnight. On the following day remove syrup and heat to boiling. Place kelp slices in hot jars, cover with boiling syrup and seal, or store the pickles in a covered crock.

ATTENTION: Information on plant foods is provided for educational purposes. The Alutiiq Museum does not recommend experimentation with wild plants. Any experimentation is done at your own risk.

Ulukaq – ULU



Ulukaq aturluku. – USE THE ULU.

The ulu—or semi-lunar knife—is an important piece of Alutiiq/Sugpiaq technology. Ground from a thin leaf of slate, these knives had a long, v-shaped working edge well designed for butchering fish. Alutiiq women once used ulus to gut, behead, and fillet salmon, which they stored in large quantities for winter. Many slate blades had a wooden handle. Baleen, spruce root, or sinew lashing secured the handle through a small hole drilled in the ulu blade. Some handles had finger grips. Others were decorated with animal carvings.

Ulus first appear in Kodiak’s archaeological record about 4,000 years ago and coincide with the development of net fishing. Archaeologists believe that slate knives were more efficient than smaller chipped stone cutting tools at processing the larger quantities of fish captured with nets. The ulu can be rapidly resharpened, with little damage to the tool, and its smooth surface can be cleaned easily. It also has a long blade perfect for filleting.

Commonly known as the “woman’s knife,” ulus are an item of technology used by Native peoples from Alaska to Greenland. Across this region, men also used ground slate knives—*nuusit*, though these pieces were shaped like a lance with two sharply ground edges. These knives are sometimes called flensing knives, as they were used to strip the blubber from the carcasses of sea mammals.



Slate ulu with a wooden handle, ca. AD 1400–1750, Koniag, Inc. Collection, Karluk One Site.

Alagnaq

Salmonberry



Amarsaq ^(N); *Amaryaq* ^(S)

High Bush Cranberry



Rubus spectabilis Pursh
Rasaceae (Rose Family)

Plant: Salmonberries are one of the first wild fruits available each summer. They grow on prickly shrubs found in open habitats. The plant has dark pink flowers that develop into large, watery, raspberry like berries. The berries are best in July but are often available from mid-June to mid-August.

Food: People use salmonberries in jams, jellies, wine, and desserts like cittaq, a dish made by mashing berries with milk and sugar. People also peel and eat salmonberry stems, suck the nectar from salmonberry flowers, and eat the flowers.

Medicine: Salmonberry leaves and powdered salmonberry bark can be used to treat skin problems. People apply a poultice of the old, dead leaves- collected from beneath the plant – to rashes, cuts, and sores to promote healing. The leaves can be dampened and heated first.

Ecology: An abundance of salmonberries means pink salmon will be plentiful. It also forecasts a snowy winter.

Viburnum edule (Michx.) Raf

Plant: High-bush cranberry (locally Sour Berry, Kalina Berry) is a medium –to- tall upright shrub found in Kodiak’s woods, thickets, and clearings. High-bush cranberry’s small, white, cluster-forming flowers develop into round, red, sour fruit that is quite juicy. The plant has rounded, lobed leaves and smooth, gray bark.

Food: Added to mashed potato akutaaq, puddings, and desserts.

Medicine: High-bush cranberry tea, juice, jelly, syrup, whole and mashed cranberries, and cranberry bark are valued for treating sore throats, colds, laryngitis, and coughs. The berries were also eaten to treat tapeworm. And to relieve menstrual cramps, bleeding, and stomach problems.

Gathering: High-bush cranberries ripen in September and are typically available through October. Some people use the partially ripe berries, those that are not completely red.

(N) Northern Kodiak Alutiiq Dialect

(S) Southern Kodiak Alutiiq Dialect

Qangananguaq

Northern Yarrow



Uriisaq

Angelica



Achillea millefolium L.

Plant: Northern yarrow (locally Squirrel's Tail) is a medium- sized herb of open habitats throughout the Kodiak Archipelago. Its aromatic, fern- like leaves and clusters of white, late blooming flowers, located at the top of its stem, are identifying features.

Medicine: The leafy stems are used as a steam bath switch and/or a poultice to treat aches and pains, sores, cuts, boils, abscesses, toothaches, and broken bones. People also crush the raw roots, wrap them in a hot, moist cloth, and place them on an afflicted area. A tea made from yarrow can be used to relieve cramps, stop internal hemorrhaging, treat heart and kidney problems, relieve hangovers, and ease the side effects of cancer treatments. Drops of the tea can be placed in the eyes and ears to treat ailments. The tea is also said to heal uterine complaints and provide cleansing after childbirth. Breathing the steam from heated northern yarrow plant clears the sinuses.

Angelica lucida L.

Plant: Angelica is a large, very leafy herb with a stout, fleshy stem and small, greenish- white flowers that form a large head. The aromatic plant grows in meadows, on beaches, and along streams throughout the Kodiak Archipelago.

Caution: Plants intermediate in appearance between angelica and the deadly poison water hemlock occur in some areas of Alaska. As such, angelica should never be eaten or applied to cuts or skin abrasions.

Gathering: Angelica is available during the growing season, but it is not preserved because it molds easily. People harvest the plant until its stems turn woody and it leaves yellow and begin to disintegrate.

Medicine: Angelica is highly valued as a steam bath switch and used to relieve aches, pains, and sore muscles. Switching a pregnant woman is said to remove gas from her body. The inner part of the stem and the leaves are rubbed on the skin to heal rashes, sores, pimples, cuts, dry skin, and other skin problems. People also rub angelica stems on swollen or injured areas and over broken bones. The plant is said to contain an oil that heals and revitalizes the skin. People clear their sinuses by splashing hot water on angelica leaves laid on hot steam bath rocks.

Qaataq

Licorice Fern



Ciquq

Balsam Cottonwood, Balsam Poplar



Subsistence Information in Historic Accounts of the Kodiak Alutiiq

Prepared by the Alutiiq Museum for *Nek'rkat* - The Alutiiq Wildfoods Project, 2014

Billings, Joseph - English navigator who served the Russian explorers, came to Alaska in 1789 and visited Kodiak from June 29 to July 6, 1790

Reference: Found in, Merck, C. H., 1980, *Siberia and Northwestern America 1788-1792*. Fritz Jaensch, translator, and Richard A. Pierce, editor. Limestone Press, Kingston, Ontario. See Pp. 199-210.

Quote: "They also collection sour grass (sorrel) and preserve it with whale meat in the following fashion: they dig a pit, and line it with grass, then put in a layer of worrel, then a layer of whale meat, and so on, repeating until the pit is filled." (page 206)

Notes: A few short passages on seasonal subsistence practice and food storage. Much of the Billings account has not been published.

Bolotov - Archmandrite Iosaf, head of the first Russian Orthodox mission to American, arrived on Kodiak in 1794 and stayed until 1798

Reference: Found in, Black, Lydia T., 1977, *The Konyag (the inhabitants of the island of Kodiak) by Iosaf [Bolotov] (1794-1799) and by Gideon (1804-1807)*. *Arctic Anthropology* 14(2): 79-108. See Pp.82-87

Quote: "Birds are hunted by means of nooses and by means of nets woven from whale sinews." (page 85).

Notes: Provides a brief cultural overview with some details on hunting, kayak construction and harvesting practices by season.

Campbell, Archibald - Seafarer who visited Kodiak for about a year from December 1807 to December 1808 and was shipwrecked in Uyak Bay.

Reference: Campbell, A., 1816, *A Voyage Round the World from 1806 to 1812*. Archibald Constable Company, London.

Quote: "In catching seals, and other amphibious animals, these people shew great dexterity and ingenuity. Concealing themselves bellind rocks, they decoy them by throwing a seal skin, blown out like a bladder, into the sea. To this is fixed a line made of the sinew of the whale, by which they draw it to them, when it is followed by the seals, who take it for an animal of their own species. As soon as within reach, they are killed with spears or bows and arrow." (page 115)

Notes: Includes a short description of life in the village of Karluk, where Campbell was cared for after the wreck. Also includes general notes on the fur trade, open skin boats, and bear hunting.

Coxe, William - An Englishman who tutored the children of English aristocrats in Russian. Here, he collected and published manuscripts in exploration. He never visited Kodiak.

Reference: Coxe, William, 1780, *Account of the Russian Discoveries between Asia and America to which are added the conquest of Siberia and the History of the Transactions and Commerce Between Russia and China*. T. Caddel, London.

Quote: "Their food consists chiefly of raw and dried fish, partly caught at sea with bone hooks, and partly in rivulets, in bag-nets made of sinews platted together." (page 117)

Notes: Accounts the travels of Russian hunters and merchants to Alaska prior to 1776, translated from a German source. Include an account of Stephen Glotov's overwintering on southern Kodiak Island, one of the earliest visits to Kodiak. Subsistence information is general but contains details on animals pursued and trade patterns.

Davydov, G. I. - A young Russian Naval Officer who visited Kodiak twice between 1802 and 1803. Traveled around the island and spent a winter in the archipelago.

Reference: Davydov, G. I., 1977, *Two Voyages to Russian America, 1802-1807*. Colin Bearne, translator, and Richard A. Pierce, editor. Limestone Press, Kingston, Ontario.

Quote: On porpoise hunting: "This animal breeds near the shore and for some distance away: also off Kad'iak, more on the north side of the island where the Koniagas catch them for food, for the dolphn's meat is quite delicious. They kill them with arrows fired from a board; these have a spear shaft made in a special fashion so that it sticks in the thin skin and fat of this animal." (page 225)

Notes: One of the longest and most detailed ethnohistoric accounts of Kodiak Alutiiq culture. Contains extensive notes on subsistence practice, with seasonal harvesting information, accounts of harvesting different types of fish and game, as well as descriptions of food storage, food preparation, trade and exchange.

Fisher, William J. - A tidal observer for the Smithsonian Institution stationed in Kodiak in 1879. Collected cultural objects and natural history specimens until 1894. Lived on Kodiak till his death in 1903.

Reference: Fisher, W. J., 1899, Notes accompanying collection of useful plants made by W. J. Fisher at Kodiak, in 1899. Volume 1, Entries 1-48. SIA Acc. 12-038. Smithsonian Institution Archives, Washington, D.C.

Quote: "Fritullaria Kamschatkensis. Russ. Saranah. Aleut. Lā-git. Used as an article of food by Natives. The bulbs are boiled, mashed and after a liberal supply of seal or whale oil has been thoroughly mixed therewithin, it is put away for winter use." (#3)

Notes: Handwritten journal notes describing Kodiak plants and their uses, some with Alutiiq terms.

Gideon, Heirmonk - An educated member of the Russian Orthodox clergy whoserved as a missionary on Kodiak from 1804-1807.

Reference: Found in, Black, Lydia T., 1977, *The Konyag (the inhabitants of the island of Kodiak) by Iosaf [Bolotov] (1794-1799) and by Gideon (1804-1807)*. *Arctic Anthropology* 14(2): 79-108. See Pp. 87 - 103. Also published as a book: Gideon, Hiermonk, 1989, *The Round the World Voyage of Hiermonk Gideon*, Lydia Black, translator, and Richard A. Pierce, editor. Limestone Press, Kingston, Ontario.

Quote: "Once the hunter notices such a whale, he approaches to the distance not more than three sazhen' and tries to aim his spear below the side fin called locally last. If the hunter misses the side fin, he aims at the back fin or tail [fluke]. The wounded whale dives for the sea bottom. If the spear hit accurately, the whale will be dead and come to the surface on the third day; if the spear hit to the rear of the side fin, toward the tail, the whale carcass will surface on the fifth or sixth day; if the spear was placed under the back fin, then the carcass will float not earlier than on the eighth or ninth day." (Page 68)

Notes: One of the best accounts of Alutiq culture made by a person who spent a great deal of time in Alutiq communities. Focuses on social life but includes details on sea otter, bird, and whale hunting, as well as trade.

Holmberg, Heinrich J. - A Finish naturalist and amateur ethnographer who visited Kodiak from April - October, 1851.

Reference: Holmberg, H. J., 1985, *Holmberg's Ethnographic Sketches*. Marvin W. Falk, translator, and Fritz Jaensch, editor. University of Alaska Press, Fairbanks

Quote: "Halibut is caught with the aid of a wooden hook, as with the Tlingits. But the fishing line which is used to catch cod, found throughout the year around Kodiak, also deserves mention here. It consists of two un-evenly long bones, which are tied together with whale sinews to form an angle of 45 degrees. The longer piece is connected by a foot-long rope with one end of a stick, on the other end of which is tied a similar length of rope containing a weight (usually a roundstone). The fishing line is tied at the middle of the stick. The whole apparatus is let down 50-to 60 fathoms until the weight touched the bottom of the sea. When the hungry cod tries to devour the baited line, it naturally gets caught on the protruding barbed hook and pulls on the line so that the weight lifts every time, thereby showing

Notes: Holmbergs account provides a broad cultural review with some good original information from his visits with Alutiq people. However, he also synthesizes materials from earlier accounts.

Description of whaling, plant use, seasonal harvesting practices, and sea mammal hunting are all featured.

Huggins, Eli Lundy - A soldier in the U.S. Army stationed in Kodiak following the US purchase of Alaska, from 1868 to 1870.

Reference: Huggins, E. L., 1981 *Kodiak and Afognak Life 1868-1870*. Edited by Richard A. Pierce. Limestone Press, Ontario.

Quote: "A hoop is fastened around the top of the manhole, to which the bottom of a waterproof shirt is tightly bound. Upon seating himself in the boat, the native puts on this shirt, tying it at the throat and wrists, and thus becomes as if were an integral part of the boat." (page 4)

Notes: Journal entries and correspondence fill a large part of this book, but the first 35 pages are a narrative account of Huggins time in the Kodiak region with many details on Alutiiq life. This includes discussions about kayaks, marine fishing, fox hunting, and sea otter hunting.

Kashevarof, Vasilii Ivanovich - Russian explorer who visited Kodiak in the 1830s.

Reference: Black, Lydia T., 1990, Vasilii Ivanovich Kashevaroff manuscript from 1833. MS on file Alutiiq Museum & Archaeological Repository Library, Kodiak.

Quote: "The most substantial fox catch is taken by means of traps [the trapping season] in all sections of the Kad'iak District takes place between early September and the first snow fall." (page 14)

Notes: This unpublished document translated by Lydia Black dates to 1833 and discusses Russian colonial settlements and facilities on Kodiak Island and include information on resource harvesting under the Russian artel system - fishing, trapping, bird hunting, whaling, and the ground squirrel industry.

Khlebnikov, Kiril Timofeevich - Russian American Company official who traveled widely in Alaska and California in the first decades of the 19th century.

Reference: Khlebnikov, K. T. 1994, *Notes on Russian America. Parts II – V: Kodiak, Unalashka, Atkha, the Pribylovs*. Translated by Marina Ramsay, edited by Richard Pierce. Limestone Press, Kingston, Ontario.

Quote: "The parkas are stitched differently, depending on the size of the bird skins. Fifty murre skins are used, 40 tufted puffins and 30 horned puffins. An adroit hunter obtains from 300 to 500 birds. The meat is eaten by the Aleuts during the hunt, and they stock up with dried meat for the winter." (page 27)

Notes: Describes hunting parties generally and bird hunting and squirrel hunting specifically during the period of Russian rule on Kodiak.

Langsdorf, Georg Heinrich - A German naturalist and a physician who visited Kodiak briefly in 1805 and again in 1806.

Reference: Langsdorf, G. H. 1993, *Remarks and Observations on a Voyage Around the World from 1803–1807*. Victoria J. Moessner, translator and annotator, Richard A. Pierce, editor. Limestone Press, Kingston, Ontario.

Quote: "The Aleuts are excellent, adept marksmen. They usually set out in several baidarkas to hunt sea otter. As soon as they see an animal, they surround it and it seldom escapes, for, just like whales and seals, it has to surface from time to time to breathe fresh air." (page 39)

Notes: Langsdorf considers the size and character of Kodiak's population, but also reports on

Lisianski, Uri - Officer in the Imperial Russian Navy who visited Kodiak in 1802 and again in 1803 in support of the Russian American Company's commercial pursuits. Traveled widely in the archipelago.

Reference: Lisianski, U., 1814, *A Voyage Round the World, 1803-1806*. N. Israel Amsterdam and Da Capo Press, New York.

Quote: "As it was low water, all the people residing there, were busily employed along the beach in search of shell-fish, which constitute their chief food during this season of the year . . ." (page 173)

Notes: An early and detailed account of Alutiiq lifeways with information on shellfish use, bird hunting, whaling, sea otter hunting, seal hunting, fishing, hunting technology, and boats.

Merck, Carl Heinrich - A German naturalist who visited Kodiak for a week in the summer of 1790 with the Billing Expedition.

Reference: Merck, C. H., 1980, *Siberia and Northwestern America 1788-1792*. Fritz Jaensch, translator, and Richard A. Pierce, editor. Limestone Press, Kingston, Ontario.

Quote: "From February, March to April they hunt on the southern side for fur seals (Atyk). From May to June there follows the actual hunt of the sea otter (Akhua). During June and July they go after whales (Asuk), sea lions (Adakhluk), sea pigs [porpoise] (Mangak), seals (Shunk), and young birds." (page 105)

Notes: As a naturalist, Merck describes the natural environment in detail, but also considers Alutiiq social and ceremonial life. Subsistence information includes seasonal hunting activities, boats, fishing, plant use, and cooking.

Petroff, Ivan - A Russian born U.S. army soldier, language expert, and writer who studied Alaska history. He visited Kodiak in October of 1880 while working for the US Census and in 1881 was posted at Kodiak as a customs collector. He stayed on the island for 4 years.

Reference: Petroff, I. 1884, *Report on the Population, Industries, and Resources of Alaska*. Department of Interior, Census Office, Government Printing Office, Washington, D.C.

Quote: "The dried fish is generally stored in the dwellings, being piled up along the walls; but if the supply is great it frequently happens that the floor is covered with them several feet high . . ." (page 231)

Notes: Petroff synthesizes information from earlier ethnographic accounts and is known to have fabricated information. However he lived on Kodiak for ca. 4 years and provides a detailed account of Alutiiq lifeways. This includes considerable information on subsistence.

Sarychev, Gavril Andreievich - visited Kodiak for a week in the summer of 1790 with the Billing Expedition.

Reference: Sarychev, G., 1806 *An Account of A Voyage of Discovery to the North-east of Siberia, the Frozen Ocean, and the North-east Sea*. Richard Phillips, London.

Quote: "Their baidars, or principal canoes, are double the size of those of the Aleutians, but much shorter, being commonly double-seated, and often only single-seated, with a short oar, like a shovel." (page 18)

Notes: Very limited ethnographic detail, confined to a couple of pages - 17 and 18.

Sauer, Martin - Joseph Billings personal secretary who visited Kodiak for a week in the summer of 1790 with the Billing Expedition.

Reference: Sauer, Martin, 1802, *An Account of a Geographical and Astronomical Expedition to the Northern Parts of Russia*. A. Strahan, London.

Quote: ". . . a river from a lake fell into the sea west of Kodiak, and that they carried their boats over a low mountain to an inlet, which communicated with Bristol Bay. This was known to the Russian hunters and several natives, who, in confirmation, said, that they obtained the tusks of the Walrus, or Morzsh, from the opposite shore of Alaska: their

Notes: Includes information on use of shellfish, long distance trade, whaling, traditional meals, seasonal harvesting, halibut fishing,

Shelikov, Gregorii I. - Russian merchant who led the conquest of the island and established the Russian American company presence. Lived in the archipelago for almost two years between 1784 and 1787.

Reference: Shelikov, G. I., 1981, *A Voyage to Russian America, 1783-1786*. Translated by Marina Ramsey, and edited by Richard A. Pierce. Limestone Press, Kingston, Ontario.

Quote: "The the rivers they catch fish by making stone weirs. They spear the fish with gaffs similar to spears, in the blunt end of which is a hollow into which is placed a barbed point from bone, stone, or iron tied with sinew to the shaft." (page 54)

Notes: Historical narrative of Shelikov's time on Kodiak, with limited ethnographic information. One major paragraph on hunting and fishing, another on meals.

Wrangell, Ferdinand P. - Visited Kodiak in July of 1818 for about two weeks and then again at some time during his tenure as director of Russian American Company between 1829 - 1835.

Reference: Wrangell, F. P., 1980, *Russian America Statistical and Ethnographic Information*. Mary Sadouski, translator, Richard A. Pierce, editor. Limestone Press, Kingston, Ontario.

Quote: "Every spear bears a distinguishing mark, recognizable by the owner who speared the whale and by other hunters." (page 27)

Notes: Very little ethnographic information on the Alutiiq recorded, and mixed in with information on the Unangan. However, Wrangell presents some information on sea mammal hunting.

Polypodium glycyrrhiza D. C. Eaton
=*Polypodium vulgare* L. subsp. *Occidentale* (Hook). Hulten

Plant: Licorice fern, characterized by widely spaced fronds or 'leaves' that are green throughout the year, grows on tree trunks and rocks in the Kodiak Archipelago. It is often found on rocky sea cliffs, where it is accessible during the winter as well as the summer.

Gathering: This plant remains green in winter and is most frequently used during that season.

Medicine: Alutiiq people use licorice fern fronds to relieve severe arthritis and to treat broken bones and sprains. Some people soak the leaves in hot water in the steam bath and place them on the afflicted area, either directly or in a cloth. Other people dice the leaves, simmer them in a small amount of water, and then mix the water and leaves with rubbing alcohol. In earlier days, human urine took the place of rubbing alcohol. An alternative to simmering the leaves is to place them raw in the liquid. After the mixture soaks for a while, it is ready to be rubbed on the ailing person.

Populus balsamifera L.
Populus trichocarpa Torr. & A. Gray

Plant: Cottonwood is a very large, soft-wooded, deciduous tree that may reach one hundred feet tall. Its heartwood, which becomes hollow with age, is covered by thick deeply grooved, grayish brown bark. Other distinguishing features are large winter buds covered with an aromatic resin and large, heart-shaped leaves that turn yellow in the fall. Its flowering catkins produce many tiny seeds with numerous cotton-like hairs.

Medicine: People added ash from cottonwood bark ash to snuff (iqmik) and used to treat toothaches. Some people use cottonwood bark to drain the ears.

Fuel: Cottonwood is preferred for smoking fish because it produces a slow burning, smoky fire that imparts a good flavor. It is not normally used to heat homes but may be used as tinder.

Material: Cottonwood was used to make fish drying poles. Cottonwood bark was carved into toys, gaming pieces, plates, net floats, labrets, animal figurines, and maskettes. An old cottonwood log on the beach was used as a cooking container for cooking gull eggs, meat, and fish. Hot rocks were dropped into the cooking water to heat it.

Nasquluq

Bull Kelp



Imanit; Tapernat

Beach Rye, Beach Grass, Lyme Grass



Nerocystis luetkeana (K. Mertens) Postels et Ruprecht

Plant: Bull kelp is a very large seaweed with a long, largely hollow stipe or stem with an inflated bulb at the end. Long blades or leaves trail from above the bulb. The plant grows abundantly in Kodiak's near shore waters.

Food: Stems of small bull kelp can be eaten raw. Bull kelp is also made into pickles and relish.

Material: Hollow sections of bull kelp stipe can be used to siphon water from boats. Thinner parts of the stipe were once used for fishing line, net making, and as rope for securing boats and climbing on cliffs. The stem also served as a whip. The bulb serves as a target in the bow and arrow game ruuwarluni, and pieces of bull kelp are ammunition for children's popguns. Bull kelp is also a garden fertilizer.

Leymus mollis (Trin.) Pilg. = *Elymus arenarius* L.

Plant: The single most important grass species for the Kodiak Alutiiq is beach rye. This tall, stout grass of coastal beaches has long, thick flower clusters and long, wide, flat leaves.

Material: Used as roofing material, insulation for clothing, houses, and food storage pits, mattresses, to cover floors, as a surface for cutting fish and game, for steam bath switches, and as a weaving material. People weave mats, mittens, socks, cups, backpacks, and other items from beach rye. The roots and rhizomes are collected to make taariq, scrubbers used in the steam bath.

PitRuus'kaaq

Beach Lovage



Cukilanarpak

Devil's Club



Ligusticum scoticum L. subsp
Hultenii (Fernald) Calder & R. L. Taylor

Plant: Beach lovage has small, pinkish to white flowers that form clusters at the top of roundish, toothed leaflets that occur in threes and remind some people of parsley. The herb's fleshy stem, which may reach two feet, often has a reddish base. Beach lovage grows along the Kodiak's seashores.

Gathering: People pick beach lovage soon after it appears in May and harvest it throughout the summer, until the leaves yellow and begin to decay. When it flowers, in late June and July, people typically pick just the nonflowering stems. This plant is air-dried by hanging bunches upside down.

Food: Beach lovage is a popular wild food. People add the fresh and dried leaves and stems to a variety of fish dishes- boiled fish, soups, and fish patties. Some people wrap beach lovage around a whole fish before baking. Others cook the herb as a vegetable or add it raw to salads.

Medicine: Tea made from beach lovage can ease kidney troubles.

Oplopanax horridus (Sm.) Miq.
= *Echinopanax horridum* (Sm.) Decne. & Planch.

Plant: Devil's club is a large shrub with dense prickles and spines; very large, rounded, lobed, indented leaves; and pyramid-like clusters of red berries. It occurs throughout the Kodiak Archipelago except in the southwestern region.

Medicine: Mashed Devil's club root was used to relieve joint pain and gout, and a tea from the root used for rheumatism. A tea made from the inner bark treated tuberculosis, colds, fevers, congestion, coughs, and stomachache, and in recent times, diabetes. Charcoal from the burned devil's club root was applied to inflamed eyes in a poultice.

Uruq

Mosses



Culuguat Weg'et

Cotton Grass



Sphagnum spp. and other varieties

Plant: Mosses are unusual plants. Unlike most plants, they absorb water through their leaves and stems. They do not have roots or a system that transports nutrients. They grow in dry, moist, and wet ground, on trees and rocks, and in freshwater. People in the Kodiak Archipelago divide moss into two categories: tree mosses and ground mosses.

Medicine: Used to treat pneumonia in the steam bath.

Material: Elders remember gathering, washing and drying moss for use in diapering babies, as toilet paper, and as absorbent material for menstruating women. People also used moss as insulation for houses and clothing, material for camp bedding, camouflage for snares and traps, to cover graves, to remove the hair from seal skins, to fill leather balls for laptuuk, and as a wick for an oil lamp.

Eriophorum spp.

Plant: Cotton grass grows in low-lying, wet habitats. Each stem has a fluffy, white, seed head and very thin, grass-like leaves.

Medicine: Cotton grass tufts can be placed in the outer ear to treat an infection. In the steam bath, people put a hot poultice of tufts on the ear. This releases the plant's natural, healing oils and melts earwax.

Material: Cotton grass tufts can be twisted to make a wick for a stone oil lamp.