



FROM SILT TO SALT
*A MULTICULTURAL TEACHING
GUIDE TO SOUTHCENTRAL ALASKA*

Sophia Butler, Jerry Demmert, Shaun Nesheim,
Meghan O'Leary, Reuben Seidl, Mason Shearer



Peter Pappas
Editor

FROM SILT TO SALT: A MULTICULTURAL TEACHING GUIDE TO SOUTHCENTRAL ALASKA

This book is one title in a six-book series - a collaborative project of the UAS MAT 2016 -17 cohort.

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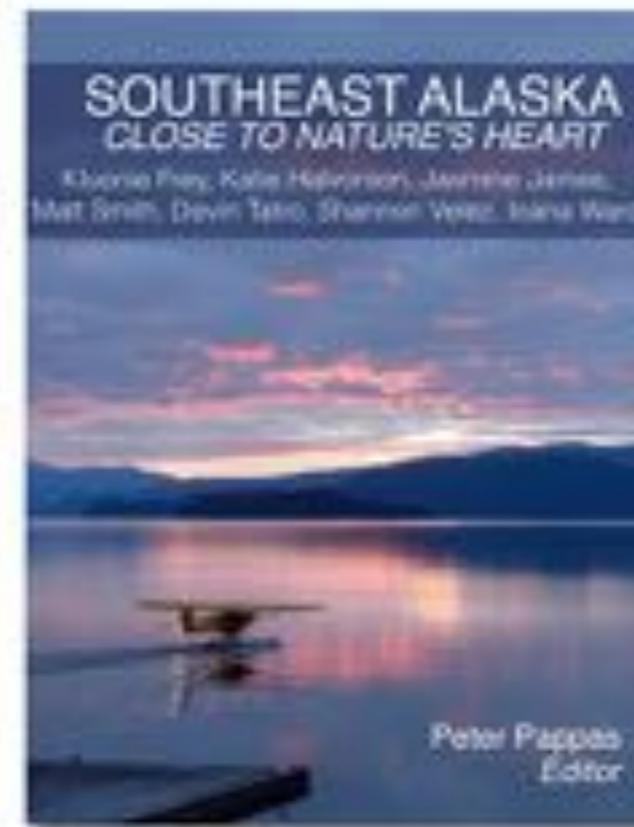
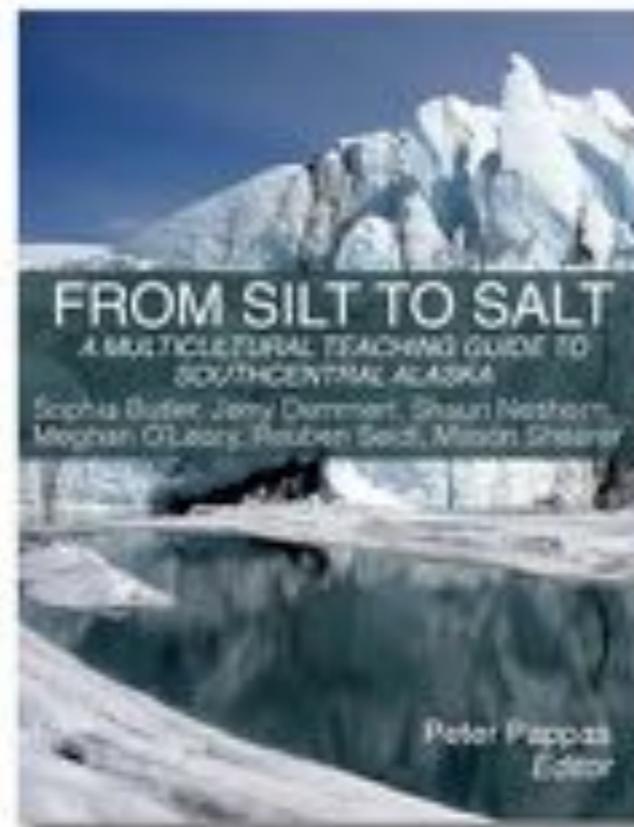
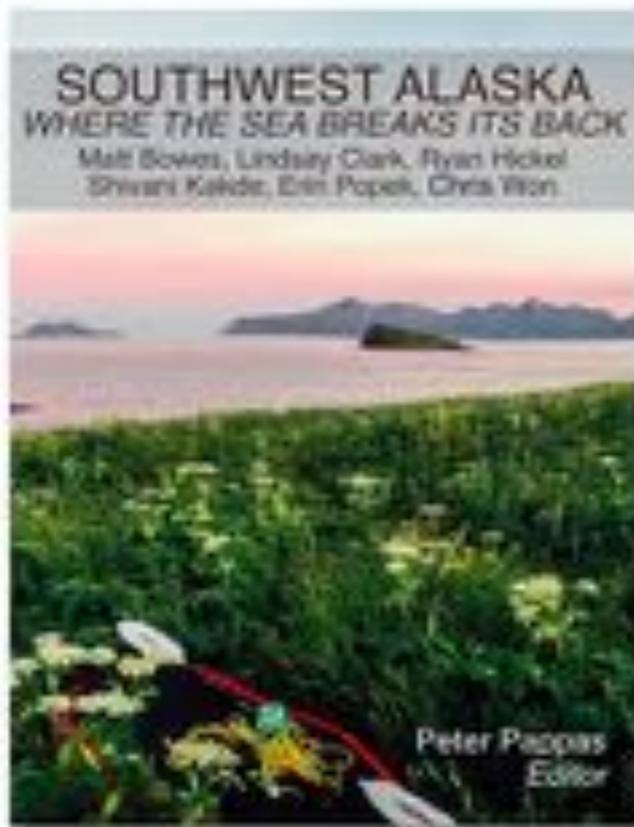
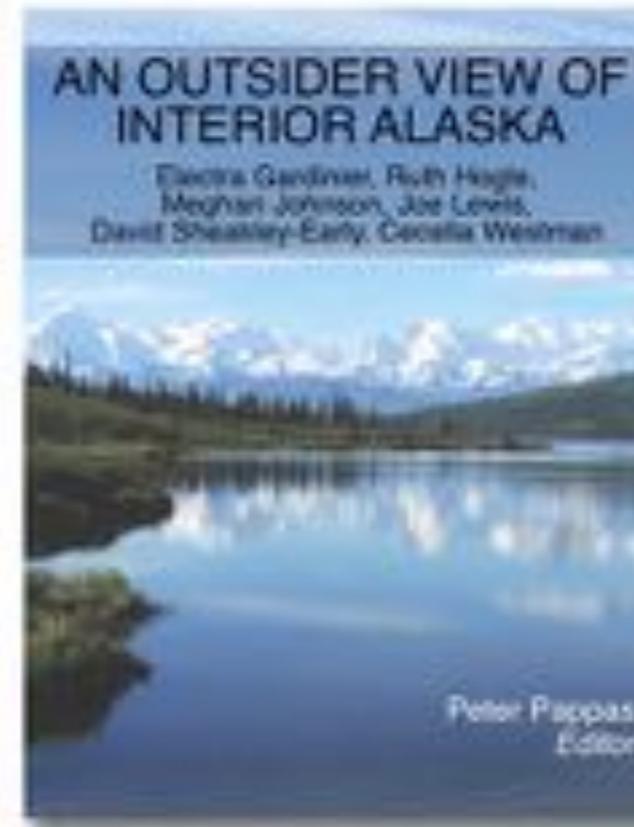
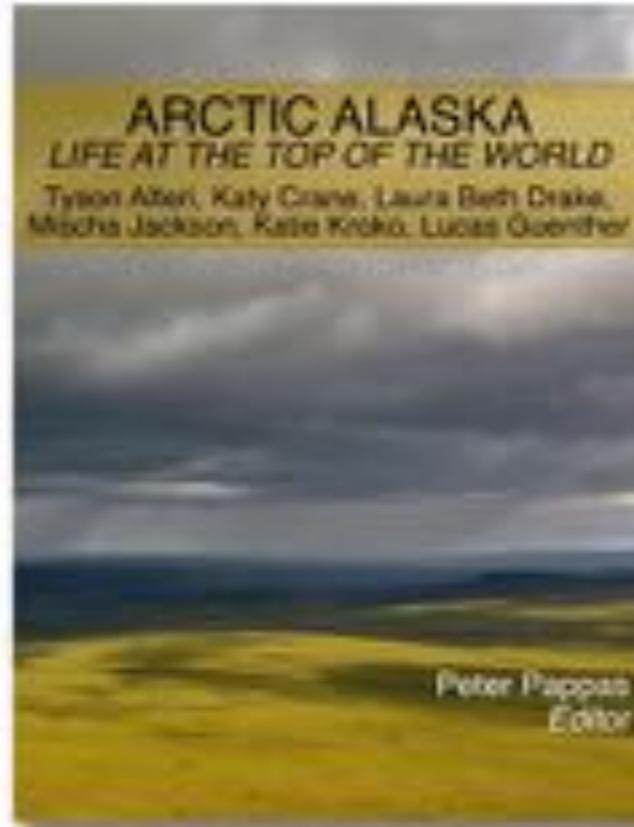
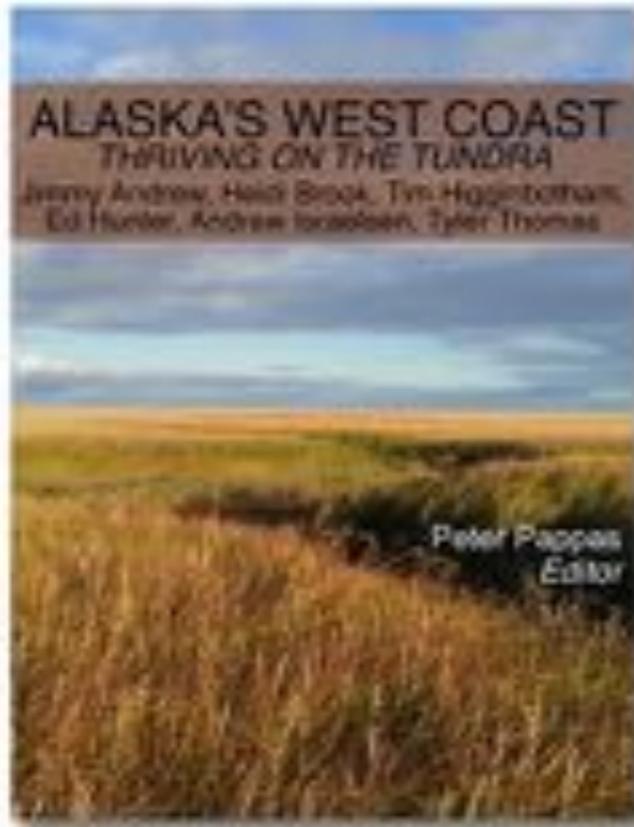
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~ 2016

Cover image: *Mouth of the Matanuska Glacier* by [Sbork](#)

MULTICULTURAL ALASKA SERIES / UAS MAT 2016 COHORT



University of Alaska Southeast Masters in Teaching Students Sophia Butler, Jerry Demmert, Shaun Nesheim, Meghan O'Leary, Reuben Seidl, and Mason Shearer, have written this book for those interested in Alaska, particularly educators.

It includes lesson plans focusing on place-based and multicultural education as well as a detailed introduction to Southcentral Alaska, the most populated and varied region in the state.

~ Sophia Butler, Jerry Demmert, Shaun Nesheim, Meghan O'Leary, Reuben Seidl, Mason Shearer ~ 2016

In This Land by Mason Shearer

Natives sing. Speak their histories through stories.
Population maintained by sea otters,
alders heal wounds, physical wounds.
And yet,
Alder can't heal wounds formed
by oil spills and world wars.



The University of Alaska Southeast (UAS) secondary Master of Arts in Teaching (MAT) program convened a new cohort of 37 students from many different corners of the world and from all walks of life in June 2016. The students share many characteristics, not the least of which, is the desire to be the best possible middle or high school teachers for Alaska's students. The first two courses in the UAS MAT program are Perspectives in Multicultural Education and Alaska Studies, both mandated by the state of Alaska for all teachers in the state. The decision was made to integrate these two courses in a project-based approach culminating in the publication of this book

Through a variety of activities students learned about different regions of Alaska and, in teams of six or seven, wrote an introduction to the region suitable for a new teacher to gain background knowledge about the tremendous diversity in the geography, history, cultures and languages across the state. Students learned about the characteristics of culturally responsive teaching (CRT) by closely examining the Alaska Standards for Culturally Responsive Schools and listening to master teachers share their best CRT lessons and strategies. Students were then asked to create a CRT lesson plan based in the Alaskan region they studied. The books are organized into six volumes for each of Alaskan six regions - one chapter devoted to regional history and one chapter featuring the six or seven CRT lesson plans related to that region.

~ Angie Lunda, Adjunct Instructor, Perspectives in Multicultural Education and Peter Pappas Adjunct Instructor, Alaska Studies University of Alaska Southeast

Alaskans live in a land of extremes. A land mass of 586,412 square miles, makes Alaska equal in size to one-third of the rest of the United States. With only 731,449 people, we have one of the lowest population densities in the world. Exacerbating the issue; many communities are accessible only by air, water or technology, making technology a vital link to education in rural and remote communities.

For thousands of years, Alaska has been home to indigenous people of multiple unique cultures and languages. Native villages throughout the state depend on a subsistence economy based on traditional uses of the land and its resources for their livelihood. These traditional ways of living, passed down through the generations, define the culture and describe what it takes to live and thrive in what can be a harsh environment. Alaska Native people want to ensure that the education of their children continues to provide the learning they need to maintain their culture and language and to support healthy Native communities.

The University of Alaska Southeast takes our commitment to providing culturally relevant, place based education for Native as well rural and remote students in Alaska. Our MAT Secondary teacher candidates and their faculty have worked hard to share research from original sources documents and the wisdom of our Native Elders in a format easily accessible in all classrooms. We hope that you enjoy their work and are able to use it in your own classroom. Gunalchéesh for your time and commitment.

~ Deborah E. Lo, Ph.D.
Dean, School of Education and Graduate Studies
University of Alaska Southeast



1
**SOUTHCENTRAL
ALASKA**

Sophia Butler
Jerry Demmert
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Meghan O'Leary
Reuben Seidl
Mason Shearer



Sleeping Lady, Anchorage [1]

SOUTHCENTRAL GEOGRAPHY

Southcentral Alaska is perhaps the most varied and diverse geological area in the state. This diversity has sustained Alaska native people for thousands of years. The region has attracted many newcomers and now holds over half the population of Alaska. Influenced by the ocean, the climate is typically mild with winter temperatures averaging around 10 degrees fahrenheit and summer temperatures around 60 degrees fahrenheit.

INTERACTIVE 1.1 Plate Tectonics in Motion



Plate tectonics and volcanic activity push up sheer cliffs and mountains all along the coastline, and these forces continue to shape the land. Here the Pacific plate slides under the North American plate, opening up the Aleutian trench, one of the deepest parts of the Pacific Ocean. At the same time, the tectonic motion pushes up the mountains and causes volcanic activity in Mt. Spurr, St. Augustine and Mt. Redoubt just to name a few. Mt. Redoubt is one of the most active volcanoes in Alaska, with the last eruption ending in 2009. Volcanologists predict more activity in the near future. Earthquake activity however, is harder to predict though they are frequent in this area due to plate-tectonic movement. The Earthquake of 1964 was notable because of its size and impact on Southcentral Alaska.

INTERACTIVE 1.2 Southcentral Geographic Landmarks



Click on map to discover the prominent, mountains, volcanoes, rivers, and ranges of this region.

On March 27, 1964 at 5:36pm an Earthquake registering 9.2 on the Richter scale shook Southcentral Alaska for about 4 minutes. Damages caused by the Great Alaskan Earthquake totaled between 300 and 400 million dollars. The resulting tsunami achieved a maximum wave height of 70 meters (250 feet), claiming 197 lives.
(Click Image below to See in Full Screen) [2]



Glaciers have carved this land for thousands of years, and the few glaciers that remain continue to shape it. The largest ice field contained completely in the United States, the Harding Ice Field, resides in the region and is one of the last remnants of the Pleistocene Ice Age. The land areas long since uncovered from ice, are now old-growth forests of towering spruce trees, with devil's club and blueberries in the undergrowth. Where glaciers have receded more recently, transitional forests of alder, cottonwood and other deciduous trees provide food and habitat for moose, bears, and many bird species. The glaciers send silty freshwater into the sea making the water appear milky green, but this water is full of nutrients. The nutrients feed large plankton blooms, which form the base of a rich and diverse marine habitat. This habitat is home to many whale species, sea lions, seals, otters and many species of fish. Inland, the mountains taper down to rolling grasslands or marshy areas, which eventually build back up into some of the tallest mountains on earth, the Alaska Range, home of Denali.

INTERACTIVE 1.3 McCarty Glacier



McCarty Glacier has receded almost 10 miles since the first picture was taken. Drag cursor over photo to see what it looks like now. [3]

GALLERY 1.1 Flora and Fauna of the Southcentral Area



[4] New Growth forests are made up of birch, alder and cottonwood trees. They attract many different land species, such as moose, bears, and birds.

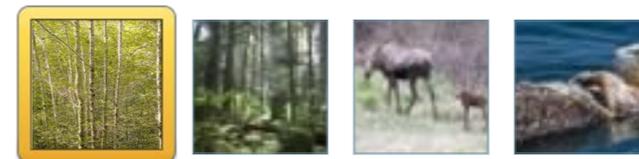


Photo Credits:

- [1] "The Legend of the Sleeping Lady." Alaskan Rumors. 19 June 2014. Web. 27 June 2016. https://c2.staticflickr.com/6/5523/11044190966_2a63ce9b2b_b.jpg
- [2] "Newspaper Clippings from the 1964 Alaska Earthquake at Gwennie's - Georneys." Georneys Site Wide Activity RSS. Web. 27 June 2016. <https://i.ytimg.com/vi/rw9HZMagcb8/maxresdefault.jpg>
- [3] Ulysses Sherman Grant, USGS photo library July 7th, 1909. https://upload.wikimedia.org/wikipedia/commons/1/1c/McCarty_Glacier.jpg
- [4] "Red Alder near Waddell Creek in Big Basin Redwoods." Flickr. Yahoo!, n.d. Web. 27 June 2016. https://c1.staticflickr.com/3/2353/2011959339_194a6836ce_z.jpg?zz=1
- [5] "Old-growth Forest." Wikipedia. Wikimedia Foundation, n.d. Web. 27 June 2016. https://upload.wikimedia.org/wikipedia/commons/f/f3/Tongass_national_forest_juneau_img_7501.jpg
- [6] Bowman Tim, U.S. Fish and Wildlife Service <http://www.public-domain-image.com/free-images/fauna-animals/deers/moose-and-elk/moose-and-calf-animals-in-forest-725x508.jpg>
- [7] "Adult Sea Otter (Enhydra Lutris) in Morro Bay, CA - This Is One of My Better Photos." Flickr. Yahoo!, n.d. Web. 27 June 2016. https://c1.staticflickr.com/3/2132/2112207670_a603821171_b.jpg

Video Credits:

"Plate Tectonics." Originally from BBC Film "Earth the Power of the Planet", 3 Sept. 2010. Web. 24 June 2016. <https://www.youtube.com/watch?v=ryrXAGY1dmE>

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Fig. 1. Technological progression of fishing lures and netting needles of the Dena'ina. (1)

INDIGENOUS PEOPLES AND TECHNOLOGIES

Due to the incredible diversity of the region, different groups of Alaska Natives used technology and resources in many different ways. Several tribes outside of the Southcentral region influenced many aspects of how technology was used. Over time, two main divisions developed: Alutiiq and the Dena'ina. The Alutiiq/Sugpiaq people partially reside in the Kenai Peninsula, Prince William Sound, and the Eastern Aleutian Island region. They were influenced by the Aleuts of the Aleutian Islands and the Yup'ik of Western Alaska. The other main group, the Dena'ina, who settled in the Anchorage, Matanuska-Susitna and Copper River Valleys, were influenced by Athabascans and Yup'ik.



Yup'ik influences are visible in many of the tools used by the Dena'ina and Alutiiq people. This Tlaabaas skin scraper is

MOVIE 1.1 Using a Bashla, or Tlaabaas



<http://denaina.anchagemuseum.org/multimedia/using-a-bashla.html>

GALLERY 1.2 Kayaks (qayaq) of the Alutiiq/Aleut and Birch-bark canoe of the Dena'ina



Model of a cleft bow qayaq (top right). The Alutiiq qayaq was also known as a bidarka, which comes from a Russian word. The open boat, designed to hold more people, is known as a anyak. (3)



The Alutiiq resided in coastal villages or settlements along the edges of rivers and lakes. As such, their technology was centered around the water and its resources. Transportation across bodies of water was made possible by kayaks (qayaq). The kayaks had a unique split bow, allowing for increased safety, speed, and seaworthiness. The frames of the kayaks, and other boats, were typically made from wood with sinew lashings. The hull was comprised of bark and animal skins, which added flexibility to the craft and made it more stable in rough waters. This enabled the Alutiiq to journey into different bodies of water and harvest a wider

diversity of resources. After Russian contact, the Alutiiq kayaks often featured a third seat for Russian fur-traders.

Historically, the Dena'ina resided more inland than the Alutiiq and had nautical technology better suited for calmer waters. Their primary boat was a birch-bark canoe, designed to provide quick and easy travel across rivers, lakes, and streams. The canoes were made from wooden frames, birch-bark coverings, and spruce root lashings. Their light build, shallow draft, and ease of repair made them perfect for use in the Dena'ina region.

Alutiiq clothing was made from animals, primarily skin and gut material from marine mammals. Precise sewing techniques ensured that their garments were waterproof, which was essential in the marine environment. Ornamental and decorative features were fashioned from puffin beaks, bone, and natural dyes.



Created by Joe Harrison
from Nook Project

Tap on icons
for more



Created by Norbert Kucera
from Nook Project

Dena'ina clothing was also made from animal byproducts, but they came from the skins of caribou and moose. Ceremonial clothing was often decorated with intricate beading and needlework.

Fishing and hunting technologies were similar between the Alutiiq and Dena'ina people. Both groups used fish traps, hooks, weirs, and nets to harvest fish. They also used spears to hunt marine and terrestrial mammals. Traditionally, tools in both cultures were made from rocks, wood, and bone. Russian influence introduced metal materials to tool making.

The Alutiiq/Sugpiaq people believe that animals that present themselves for harvest deserve respect. To fully respect the animal, the Alutiiq must utilize as much of the animal as possible. They have subsisted on bears, fish, and whales and ate the meat for sustenance, manufactured weapons and tools from bone, and manipulated the hide into clothing, baskets, and building materials.

INTERACTIVE 1.4 Alutiiq whaling with poison harpoons



<https://www.youtube.com/watch?v=llZxloUSfsl>

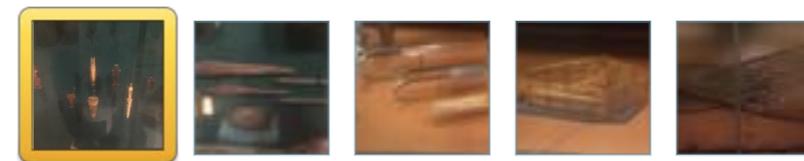
In order to hunt, the Alutiiq used spears to hunt bears and harpoons to hunt whales. They covered their hunting weapons with poison made from crushing the monkshood plant. It would slowly paralyze the animal.

The Dena'ina also lived entirely off the land and made use of all parts of their environment. They would hunt, fish, and gather plants and berries. As the centuries passed, and different technologies

GALLERY 1.3 Technology and tools of the Alutiiq and Dena'ina



Arrowheads and spear tips of the Alutiiq people. (11)



became available, the Dena'ina's tools and weapons advanced, but the traditional beliefs and values remained the same. During winter hunting trips, snowshoes were used to keep balance and traction. They were designed to distribute the user's weight to allow more control when walking across snowpack.



Alutiiq/Sugpiaq house made with a wooden frame covered in sod. (16)

Alutiiq winter households, known as ciqluaqs, had driftwood frames, walls covered in sod, and a thatched-roof covered in grass. Ciqluaqs accommodated an average of eighteen people. The main room of a ciqluaq contained a stone-lined hearth centered in the room that was used for cooking and heating. The ciqluaq was connected to private rooms that were used for sleeping, storage, and steam baths.

The Dena'ina living structures ranged from tents for traveling to log cabins for shelter at summer fish camps and winter hunting grounds. In order to survive winter, they implemented a unique technology to protect their seasonal resources harvested in the summer. They kept their supplies in elevated caches, away from winter predators like foxes and weasels. This practice is still common today.

References

Crowell, Aron, Amy F. Steffian, and Gordon L. Pullar. Looking Both Ways: Heritage and Identity of the Alutiiq People. Fairbanks, AK: U of Alaska, 2001. Print.

"Unangax & Alutiiq(Sugpiaq) Cultures of Alaska." Unangax and Alutiiq(Sugpiaq). N.p., n.d. Web. 23 June 2016. <<http://www.alaskanative.net/en/main-nav/education-and-programs/cultures-of-alaska/unangax-and-alutiiq/>>

["Alutiiq Fact Sheet \(Sugpiq, Chugach Eskimos\)." Facts for Kids: Alutiiq People \(Sugpiaq, Koniag, Chugach Eskimos, Suk\). N.p., n.d. Web. 23 June 2016. <http://www.bigorin.org/alutiiq_kids.htm>](http://www.bigorin.org/alutiiq_kids.htm)

United States. National Park Service. "Wassillie Trefon Dena'ina Fish Cache." National Parks Service. U.S. Department of the Interior, n.d. Web. 24 June 2016. <<https://www.nps.gov/nr/feature/places/13000348.htm>>

"Alaska History And Cultural Studies." Alaska Native Heritage Center. Alaska Humanities Forum, n.d. Web. 27 June 2016. <<http://www.akhistorycourse.org/alaskas-cultures/alaska-native-heritage-center/athabascans>>.

"Aleut & Alutiiq." Alaska Humanities Forum: Alaska History & Cultural Studies. Alaska Humanities Forum, n.d. Web. 27 June 2016. <<http://www.akhistorycourse.org/alaskas-cultures/alaska-native-heritage-center/aleut-alutiiq>>.

Photos

1. Lil Fish hooks by Nick Dennis. (Upper Kuskokwim Athabaskan),



HISTORY AND CULTURE



NATIVE FISHERMAN WITH DIP NET. [1]

PEOPLE

Living a semi-nomadic existence, the Athabascan people of Southcentral Alaska held no formal tribal organization, although they did develop eleven distinct languages. Their diets consisted largely of caribou and moose. During spring migrations to salmon streams and rivers, their diets were supplemented with berries and other edible plants.

The Dena'ina had developed a semi-nomadic hunting existence as well, but, distinct from interior Athabascans, they had more access to the sea with its abundant resources. Seasonal harvesting of salmon was their main food resource. Whole villages, ranging in population sizes from approximately 50 to 200 people, moved to summer fishing sites to stock up in preparation for the winter. The Russians brought with them diseases which unleashed rampant epidemics among Alaska native people in the 19th century. With resiliency, the Dena'ina survived. Many modified their lifestyle to take part in economy of the rising fur trade.

From the Alaska Peninsula to Prince William Sound, the Alutiiq language is

GALLERY 1.4 People



Berries are a major supplement to the Athabascan diet. [2]



Cook Inlet Region, Inc.

Cook Inlet Region, Inc. (CIRI) is one of thirteen for-profit Alaska Native regional corporations established by the Alaska Native Claims Settlement Act (ANCSA) of 1971, which addressed the question of aboriginal land claims in Alaska. Encompassing an area of Southcentral Alaska from the Brooks Range to the Kenai Peninsula, CIRI is charged with promoting the economic, educational, and social well being of its approximately 8,700 shareholders. They are comprised primarily of Athabascan, Iñupiat, Yup'ik, Alutiiq, Southeast Indian, and Aleut descendants. Their main fields of economic interest are petroleum and construction services.



[5]

Health Care for Alaska Natives

Access to health care for Alaska's Native population faces unique challenges, as approximately 140,000, or ½ of Alaska Natives, live outside of Anchorage, in remote areas where roads simply do not exist. As such, air travel is critical for medically underserved areas. Patients fly on small planes to regional airports, where they catch larger commercial jets to Anchorage. Otherwise, village residents often wait weeks or months for specialists to make their rounds throughout remote Alaska.

Managed in cooperation between the Alaska Native Tribal Health Consortium and Southcentral Foundation, the Alaska Native Medical Center (ANMC) was established in Anchorage in 1997. Serving more than 180 Alaska Native clinics throughout Alaska, the ANMC is a not-for-profit, 380,634 sq. ft. facility with 150 beds.



[6]

AGRICULTURE

The Dena'ina, residing in the Matanuska-Susitna Valley, used to carry goods between the Cook Inlet and Copper River areas. In the 1920s, gold and coal miners settled the region and stimulated an outside population growth. Two-hundred farming families were given parcels of land, by lottery, to work. The region is the largest agricultural area in Alaska. It grows produce for local farmers markets, as well as for the produce contests at the Alaska State Fair.

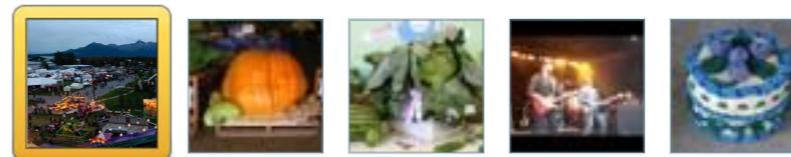


The Mat-Su valley shaded in brown. [7]

GALLERY 1.5 Alaska State Fair



The state fair occurs at the end of August through the first week of September. Located off the Glen Highway in Palmer, the fair showcases a variety of exhibits from artwork to animals, baked goods and the famous giant vegetable contest. [8]



FISHING

While Alaska natives have subsisted on fishing for thousands of years, the Prince William Sound fisheries opened its first salmon cannery in 1887. The operations quickly expanded and, by the 1964 earthquake, numerous canneries had pulled and exported millions of pounds of salmon, crab, and clams. The earthquake, along with resource exploitation, destroyed those fisheries. The herring fisheries started in 1914 but the Exxon Valdez oil spill in 1989 devastated the herring populations, leaving the future of the fishery questionable. The oil tanker Exxon Valdez ran aground on Bligh Reef spilling more than 11 million gallons of crude oil into Prince William Sound. The devastation wrought by the spill left the future in question for commercial, sport and subsistence fisheries - all of whom depend on the salmon and herring catch.

GALLERY 1.6 Fishing



A map of the Prince William Sound in relation to Southcentral Alaska. [12]



INTERACTIVE 1.5 Dipnetting in the Kenai River



A popular tradition in the region is dipnetting. The dip-netting season runs from late June through July. Alaskans harvest between 130,000 and 540,000 annually. Seasonal limit is 25 salmon plus 10 salmon for each additional household member. [15]

RECREATION

Residents of the area partake in myriad sports and recreational activities, both in the winter and in the summer. Pastimes vary greatly depending on the season and local topography. Some of the most popular are hiking, biking, camping, skiing and sledding.

GALLERY 1.7 Summer Recreational Activities



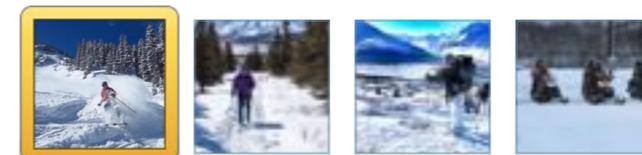
Hiking is a common summer activity in the neighboring mountain ranges. [21]



GALLERY 1.8 Winter Recreational Activities



Skiing and snowboarding are the most popular winter activities. [24]



PEOPLE OF TODAY



Tap logo
for more



GALLERY 1.10 Military in Southcentral Alaska



GALLERY 1.9 Oil

[16]



The town of Valdez is at the end of the Trans-Alaska Pipeline. It first started pumping oil in 1977. The oil boom contributed to the spike in population in both Valdez and Anchorage. [17]

In June of 1940, the military first started to mark their presence in Anchorage with Fort Richardson, an Army base, and Elmendorf Air Force base. Since World War II, Southcentral Alaska has been a strategic military location. [19]



REFERENCES

INFORMATION RESOURCES

About the Mat-Su: The Matanuska-Susitna Valley | Mat-Su CVB. (n.d.). Retrieved June 21, 2016, from <http://www.alaskavisit.com/about-mat-su/>

Alaska Native Claims Settlement Act. (n.d.). Retrieved June 27, 2016, from https://en.wikipedia.org/wiki/Alaska_Native_Claims_Settlement_Act

Alaska State Fairgrounds. (n.d.). Retrieved June 21, 2016, from <http://www.alaskastatefair.org/site/#alaska-state-fairgrounds>

Alutiiq / Sugpiaq | Alaska Native Language Center. (n.d.). Retrieved June 27, 2016, from <https://www.uaf.edu/anlc/languages/as/>

Alyeska Resort. (n.d.). Retrieved June 21, 2016, from <http://www.alyeskaresort.com/resort/about.aspx>

Anchorage, Alaska. (n.d.). Retrieved June 26, 2016, from https://en.wikipedia.org/wiki/Anchorage,_Alaska#Demographics

“Athabascan ceremonies and religion.” Project SLAM. 395 Whittier St., Juneau, AK 99801. 16 June 2016.





2
SOUTHCENTRAL LESSONS

HYBRID LEGENDS

by Shaun Nesheim

Southcentral Alaska legends compared with Western fairy tales.

Objective: Students will be able to write a short, hybrid story/legend combining elements from already-familiar stories (e.g. fairy tales) and Alaska Native legend. Students should be able to identify the characters and values in their story and how they relate to other stories.

For more information on Alaska cultural standards or how to implement this in a classroom, click [here](#).

Background Knowledge:

Talk about fairy tales/myths/legends/folklore students already know: note the characters involved, their traits, and the values that are presented in each story. Include sufficient wait time.

New Information:

Read the Alutiiq legend: *The Woman Who Became A Bear*

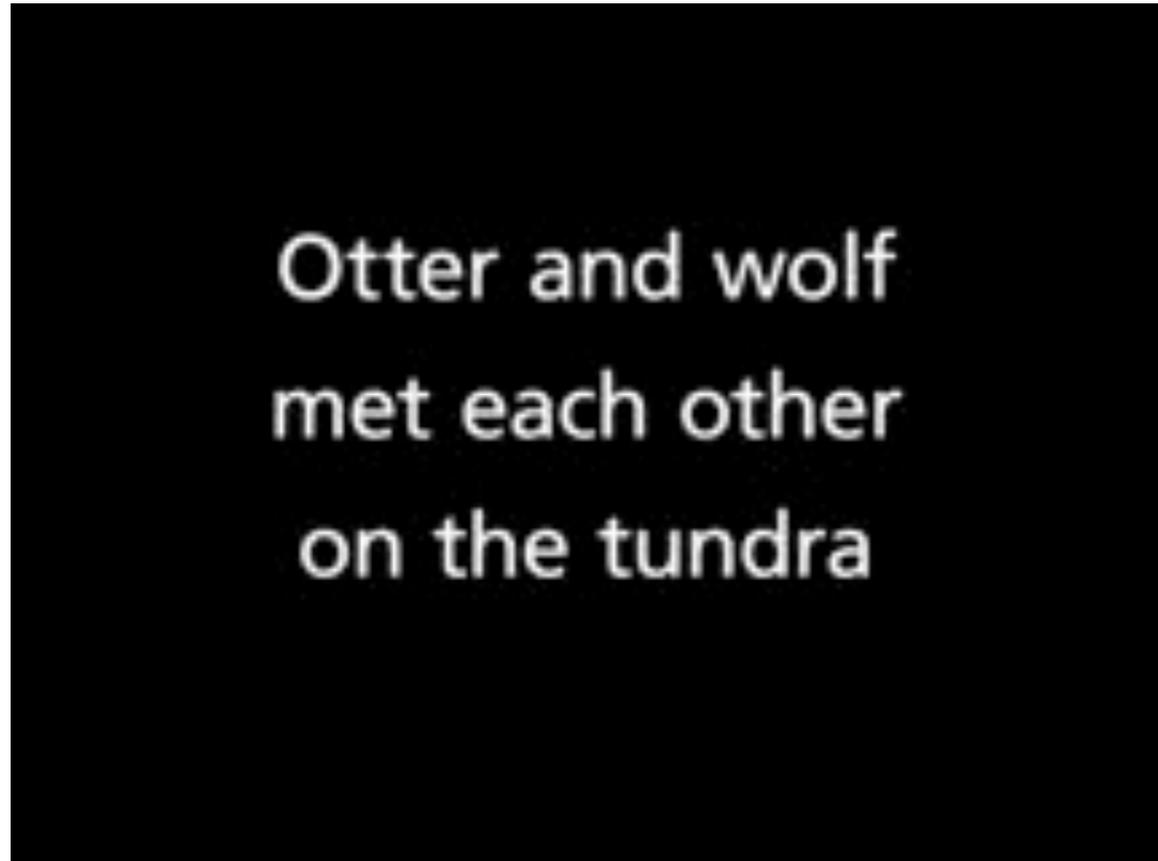
Follow the link: <http://www.afognak.org/files/Archived/Selected%20Stories/BearWoman.pdf>

ESSENTIAL QUESTION: HOW DO STORIES HELP REFLECT PEOPLES' VALUES?

Example: Click to enlarge



MOVIE 2.1 Otter and Wolf



From the Anchorage Museum. <http://denaina.anchoragemuseum.org/multimedia/denaina/otter-and-wolf.html>

Or listen to a Dena'ina story: Otter and Wolf or Sunshine Man.

Note the characters, traits, and values for each of the Alaska Native stories.

Creation: Students write their own story/legend incorporating elements from an Alaska Native story and an already-familiar story of their choice. Incorporated elements could be characters, traits, or values. Students write a paragraph about their own hybrid story explaining where the characters, traits, and values originate.

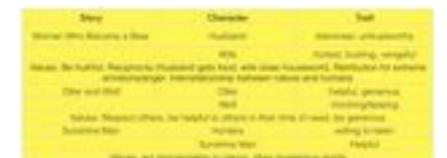
MOVIE 2.2 Sunshine Man



From the Anchorage museum. <http://denaina.anchoragemuseum.org/multimedia/denaina/sunshine-man.html>

There are options available to take this writing one step further: Students can illustrate their own stories as well and share it with younger students; stories could be compiled into a book, the students can act out their story in a play, etc.

Example: Click to enlarge





Lesson by Meghan O'Leary

MAINTAINING DIVERSITY WITH KEYSTONE SPECIES

Content Standards: C.3: develop an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy

Cultural Standard: E. 1. encourages students to consider the inter-relationship between their local circumstances and the global community

Purpose/Objectives/Outcomes:

Students will understand the indirect impact certain species have on maintaining the diversity of ecosystems. Students will also understand that these impacts can have an effect on a broader scale.

The Student will be able to:

Students will be able to identify sea otters as a local keystone species and how their existence in the area maintains biodiversity, effects local fisheries and even climate change.

Begin class with biodiversity game:

Each group of 3-4 students needs:

- 20 red, green, and yellow, M&Ms,
- 4-5 drinking straws,
- record keeping tables.
- 1 paper plate

Assign each student in a group the role of Urchin, Otter or Fish (if groups of 4 assign 2 students as fish). Students will remove certain color M&Ms based on which predator they are. Otters may remove urchins and fish (yellow and red M&Ms), Urchins may only remove kelp (green M&Ms), Fish may remove both kelp and other fish (green and red M&Ms).

Create a mini 'ecosystem' with 5 of each color M&M on the paper plate. Using only a straw, students will have 30 seconds to attempt to remove their designated prey from the 'ecosystem'.

After each round students will record the current numbers of each prey in the system then allow for reproduction (double the remaining numbers of each species), record the new numbers for the beginning of the next round, repeat 4 times.

Notice any patterns? In game 2, reassign the predators as only fish or urchins, with same rules. Notice any patterns?

Game 1 With Otters

Round	Fish	Kelp	Urchins
Initial Numbers	5	5	5
1			
2			
3			
4			
5			

Game 2 Without Otters

Round	Fish	Kelp	Urchins
Initial Numbers	5	5	5
1			
2			
3			
4			
5			

Assessment of student outcomes:

Class or group discussion at the conclusion of the games.

Explore questions:

- What patterns did you notice when playing the games?
- What was different between the first and second game?
- How does a sea otter effect the system as a whole?
- A single species that maintains the diversity of ecosystem is called a “keystone species”. What does “keystone” mean?
- Sea otters indirectly maintain kelp forests by controlling urchin populations. The Russians forced the Alaskan Natives to hunt the sea otters and by the 1900s less than 2000 otters remained along the coast of Alaska. Can you think of any implications that would have happened if sea otters had been hunted to extinction?
- Can you think of any other keystone species?
- How can humans still affect the system?

Homework or Expansion Activity:

Have students watch the provided video to learn more about keystone species. Then research another example of a keystone species and present its ecosystem and food web in a manner of their choosing (e.g through art, poetry, narrative, or model).

More information for Educators

Sea Otters and the Fur Trade

Vitus Bering’s expedition to Alaska in 1741 introduced the Europe and Asian to the wealth that could be made from Alaska’s furbearers. Many of the fur traders stopped at the Commander Islands, home of the stellar sea cow, to resupply after the voyage across the pacific. The sea cow was a source of food and oil for lamps and within 30 years was hunted to extinction by the Russian traders. The Russians moving further east employed the native Aleut and Alutiiq people who were much

INTERACTIVE 2.1 Supplemental video



Explore more on Sea otters and Keystone Species by watching this video taken from <https://www.youtube.com/watch?v=hRGg5it5FMl>

For a PDF version of this lesson, tap here: <http://uasmat.org/student-posts/biodiversity-lesson-plan-pdf/>



Photo- Eric Rolph, <https://commons.wikimedia.org/wiki/File:Double-alaskan-rainbow-airbrushed.jpg>

TRADITIONAL MEDICINE OF SOUTHCENTRAL ALASKA

by Reuben Seidl

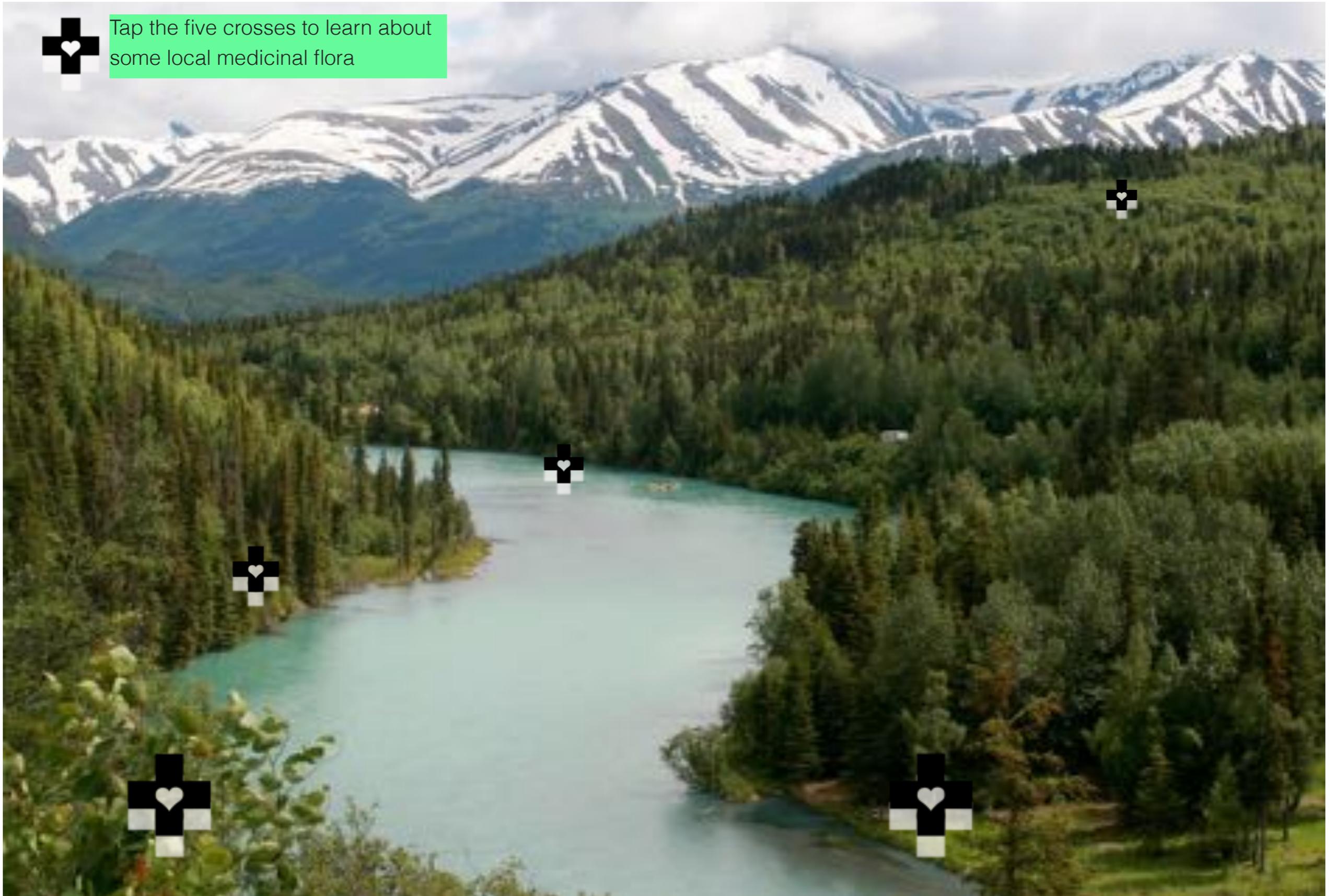
In order to survive, every culture needs to have an understanding of their surroundings. But in order to thrive, they must gain an intimate relationship with the world around them. The Alutiiq and Dena'ina people thrived in the Southcentral region, and their influence is still felt today.

One aspect of entering into a relationship with the environment is the knowledge and understanding of the properties of indigenous plants, or flora. Native plants can have several uses, but the common theme is medical care. The Chinese use local herbs to combat indigestion, eczema, fatigue, and stress. Yachaks in

Ecuador use stinging nettles and herbs to remove toxins from the body and restore balance. Burns, cuts, fractures, infections, pain, indigestion, fatigue, dehydration, and illness have all been treated with traditional medicine. In the following pages, we will go on an exploration through Southcentral Alaska to see how the indigenous people made use of native plants. Teachers, please feel free to make use of the lesson plan within your own classes. It can be accessed [here](#).



Tap the five crosses to learn about some local medicinal flora

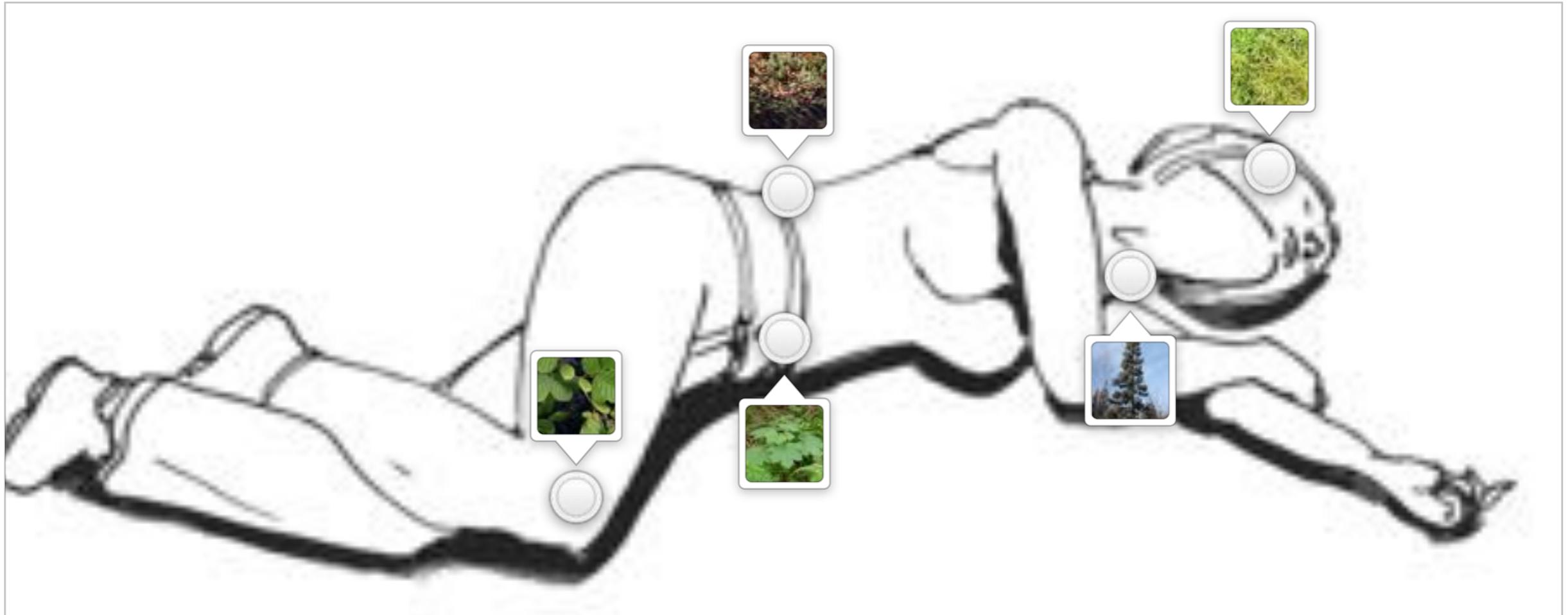


REVIEW 2.1 Testing Your Understanding

Question 1 of 3

Drag and drop the images to the appropriate region of body.

(Hint: Think about common medicinal uses and where they effective on the body)



Check Answer



References and Photo Credit

[Caselli, I. \(n.d.\). Ecuador hospital mixes folk and modern medicine. Retrieved June 28, 2016, from http://www.bbc.com/news/world-latin-america-18483584](http://www.bbc.com/news/world-latin-america-18483584)

Garibaldi, A. (1999). Medicinal flora of the Alaska natives: A compilation of knowledge from literary sources of Aleut, Alutiiq, Athabaskan, Eyak, Haida, Inupiat, Tlingit, Tsimshian, and Yupik traditional healing methods using plants. Anchorage, AK: Alaska Natural Heritage Program, Environment and Natural Resources Institute, University of Alaska Anchorage. <http://accs.uaa.alaska.edu/botany/medicinal-flora-alaska-natives/>

https://tr.wikipedia.org/wiki/Kenai_Yarımadası#/media/File:Kenai_River.jpg, Frank K, (Kenai River)

https://en.wikipedia.org/wiki/Alnus_incana#/media/File:Alnus_incana_rugosa_leaves.jpg (Alder)

<https://www.flickr.com/photos/esagor/2313950146>, Eli Sagor (Spruce)

<https://www.flickr.com/photos/brewbooks/2638506969> , brewbooks (Devil's Club)

https://en.wikipedia.org/wiki/Cranberry#/media/File:Cranberry_bog.jpg (Low-bush Cranberry)



Picture (1). Bombing of Dutch Harbor Alaska in June of 1942.



Image (1) Click on the pencil and scroll down to see the unit outline.

Tap [here](#) to see a detailed lesson plan.

THE IMPACT OF WORLD WAR II

BY MASON SHEARER

WHY DO WE, AS HUMAN BEINGS, FEEL THE NEED TO ESTABLISH WHAT HUMAN RIGHTS ARE?

Disclaimer: This lesson plan is designed to provide educators with plan and activity ideas.

This lesson will focus solely on lesson 2: internment camps within Alaska and the similarities to camps in other states.

INTERACTIVE 2.2 One of the many Aleut stories of relocation camps



Click Me!



Image (2)

History of the Aleut people, from Russian rule through WWII, is discussed in testimonies. <https://www.youtube.com/watch?v=AK0qJFPGUcU>

GALLERY 2.1 Aleut Internment Camp at abandoned camp grounds.

More pictures can be found at http://www.sitnews.us/Kiffer/AleutWardLake/062307_aleut_wardlake.html



The Aleut people were only allowed to pack one bag before being evacuated.

Aleut Relocation in 1942 until 1945

In 1942 the Aleut got evacuated from the Aleutian chain after the bombing of Dutch Harbor. Over 800 Aleut were forcefully relocated to abandoned buildings like rundown houses and canneries in southeast Alaska. Through their stay, food shortages, tuberculosis and pneumonia were threats.

During their stay in southeast, the Aleut were not permitted to leave a designated area, with the consequence of never being able to see their homeland again. Many of the people had to learn about the environment and terrain to survive.

In 1942, Southeast Alaska had not made any laws forbidding discrimination of natives.

After seemingly endless days of not knowing when they would be able to return to their homeland, in 1945 the majority were taken home. Casualties ranged around 10% of their population, and many were sick.

Payment for the forced relocation didn't come until 43 years later. Those that endured the camp were paid a few thousand each for property damages and personal losses. Beyond that, certain villages as a whole were paid to compensate for medical needs and building repairs.

Think about how this information will inflict trans-generational trauma on future Aleut generations. Keep this question in mind while continuing onto Japanese internment camps.

Fort Richardson

Fort Richardson, in Anchorage Alaska, is currently the states main military base and was built in 1940. It was originally built to provide security and give the United States a stronger military presence within Alaska.



Image (3)

In early 2016, it came to light that Fort Richardson was a small and short-lived internment camp. only 15 Japanese and 2 Germans were held at this camp. Fort Richardson was poorly constructed for the prisoners. The camp consisted of multiple tents within short proximity to others, but they were fed and given water. Even though the living situation was a bunch of tents on wood, there were guard towers that were estimated to be armed. Fort Richardson's Internment camp was only open for a brief time before relocating those that were being held to an internment camp in New Mexico.



Image (4)

Alice Tanaka Hikido has recently told her and her fathers story. She was a child when the FBI knocked on their front door. Her father left with the men and was one of the 17 held at Fort Richardson. Her and the rest of the family stayed in Juneau until they were relocated to Idaho.

Relate this to the trans-generational trauma of the Aleut. Both stories are being expressed more openly now that 70 years have passed.

GALLERY 2.2 Pictures of Manzanar Internment Camp in California



Executive order 9066: Incarceration of all Japanese-American or Japanese Heritage



Manzanar

Most Japanese internment camps were roughly 10,000 acres. Barbed wired fences and, in most cases, tall wooden guard towers surrounded each camp.

Buildings were commonly separated into different numbered blocks. In Manzanar, each block had a mess hall, laundry room, a latrine and consisted of fourteen barracks that were 20 feet by 120 feet. Barracks were separated into four or six apartments and held approximately 250 people in each block.

Besides the Japanese housing, each camp had buildings for police, medical needs, barracks for those with authority, schools, gyms, and distribution of water.

GALLERY 2.3 Constructing the Camp Activity



One: Give out marshmallows and toothpicks to each group.

Step Two: Assign each group to construct an internment camp structure with one student being the contractor and the other students being the constructors.

Step Three: Have them make a scale and place the watch towers and buildings at an appropriate

Have popsicle sticks in case the students want larger structures.



WORKS CITED

Photographs:

1) "The Atlantic." Atlantic Media Company. N.p., n.d. Web. 27 June 2016

<http://www.theatlantic.com/photo/2011/08/world-war-ii-battle-of-midway-and-the-aleutian-campaign/100137/>

Gallery 1.2)

"Aunt Terry and Manzanar." Pajamadeen. N.p., 26 Aug. 2007. Web. 27 June 2016.

<http://www.pajamadeen.com/domestic-policy/homeland-security/border-security/aunt-terry-and-manzanar>

Images:

- 1) Edit by Daniel Boros
- 2) Books by Jakub Caja
- 3) Blueprint by Oliviu Stoian
- 4) Briefcase by Eric Williamson

"Site of Little-known Japanese Internment Camp near Anchorage Found on Military Base." Alaska Dispatch News. N.p., n.d. Web. 27 June 2016.

<http://www.adn.com/military/article/site-little-known-wwii-internment-camp-near-anchorage-found-base/2016/02/26/>

"Evacuation and Internment, 1942-1945." National Park Service. N.p., n.d. Web. 27 June 2016.

<https://www.nps.gov/aleu/learn/historyculture/unangan-internment.htm>

"Japanese community recalls JBER internment camp." Alaska Public Media. N.p., n.d. Web. 27 June 2016.

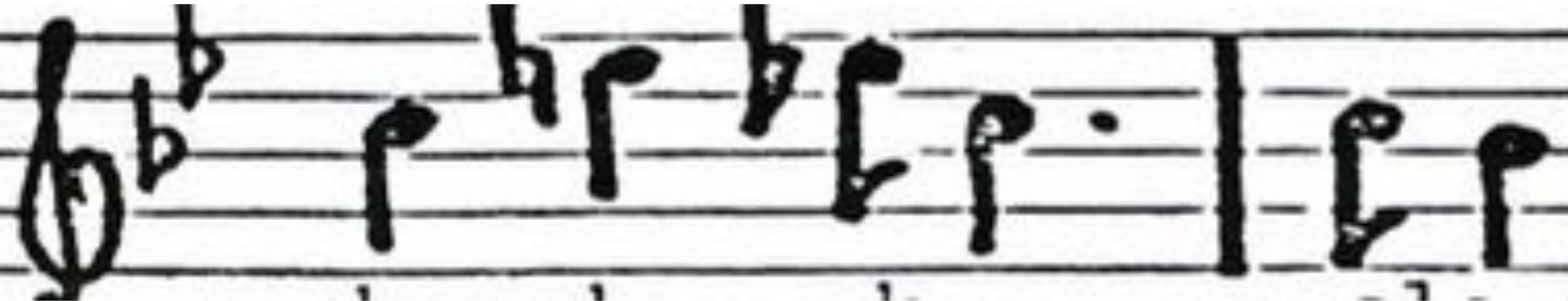
<http://www.alaskapublic.org/2016/02/22/japanese-community-discusses-jber-internment-camp/>

"Japanese American Relocation Camps." The Encyclopedia of Arkansas History & Culture. N.p., n.d. 20 Aug. 2015. Web. 27 June 2016

<http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=2273>

"Unangan Evacuated, Interned during WWII - Timeline - Native Voices." U.S National Library of Medicine. U.S. National Library of Medicine, n.d. Web. 27 June 2016.

<https://www.nlm.nih.gov/nativevoices/timeline/469.html>



Transcription Dena'ina Love Song by Shem Pete, 1915.
<http://denaina.anchoragemuseum.org/multimedia/love-song.html>

MUSIC OF SOUTHCENTRAL ALASKA

Sophia Butler

Both the Dena'ina and the Alutiiq/Sugpiaq people have rich musical traditions that are a part of their dancing, art, and storytelling. In this section, a short introduction to both tribes' music, some listening and viewing resources, and ideas for using this information with students will start to paint a picture of how music reflects traditional values, while also being greatly affected by historical events.

Some ideas for student activities and guiding questions are in the colored rectangles, however, for a complete lesson plan, click [here](#).

Bolded words have definitions that can be found in the glossary!

Essential Questions:

- How are our values reflected in our music?
- How do musicians make creative decisions?
- How are traditions created?

Music of the Alutiiq/Sugpiaq

INTERACTIVE 2.5 Imamsuat Dance (People of the Sea)



Performing a mask burning in Kodiak, AK in 2009
<https://www.youtube.com/watch?v=B4cpqtQffVQ>

What kinds of sounds do you hear?
From where or whom are they coming?
What do you think is being celebrated
in this dance?

The Alutiiq word for music is **cuayaq**. “Cuayaq” is also the word for “drum” in Alutiiq, signifying the importance of the drum to their music and dance.

GALLERY 2.4 Cuayaq



Drums were typically made from de-haired seal hide, seal bladder, or halibut stomach. <http://naturalhistory.si.edu/lookingbothways/data/objects/200.html>



As Russian and American occupation dominated Alutiiq culture, many Alutiiqs learned to play guitar and accordion, which is present in many recordings of traditional and contemporary songs alike. Much like the Dena'ina, Western harmonies were also added to traditional melodies, like in audio example 1.1.

AUDIO 2.2 Ukut Skuunat



AUDIO 2.1 Ellpet Macaqa



1.1: Traditional Dance Song <http://www.alutiiqlanguage.org/files/lessons/Songs/UkutSkuunat.mp3>

1.2: (You are my Sunshine) <http://www.alutiiqlanguage.org/files/lessons/Songs/Ellpet%20Macaqa.pdf>



The Alutiiq people are currently recovering a lot of music and language, because their culture was so suppressed during Russian and American occupation. Only 35 speakers remain in the world, and some elders don't feel they can share music or language because of historical trauma. For that reason, Alutiiq music is focused on a revival of the language, and often puts Alutiiq words to Western or modern folk songs, as you can hear in the audio examples above.

INTERACTIVE 2.6 Imamsuat (People of the Sea), performs at the National Museum of the American Indian



Listen for the words of his composition and how it might reflect their history

Out of Many Dance Festival, 2013 <https://www.youtube.com/watch?v=TU2skhdU6Bw>

Now, imagine people from a different planet land in your community, observe a family gathering, and want to take some sort of documentation home with them to represent their experience. What kinds of sounds would they hear? How would they write them down?

Students should be able to (individually or in groups) identify certain sounds, musical or non-musical, and talk about how they reflect their cultural values. They can also experiment with trying to write it down so that others can read it!



Photo credit: <http://www.theatlantic.com/photo/2014/03/the-exxon-valdez-oil-spill-25-years-ago-today/100703/>

EXXON VALDEZ OIL SPILL by Jerry Demmert

In March 1989, the Exxon Valdez oil tanker ran aground, causing 11 million gallons of crude oil to spill into Prince William Sound, adversely effecting 1,500 miles of Southcentral Alaska's coastline. There are many aspects to consider when grappling with the far-reaching consequences of the spill, then the largest in U.S. waters. For one, it devastated the sea life of the region, killing untold thousands of seabirds, otters, seals, and whales, as well as many coastal species that depended on those food resources for survival. Secondly, the economy Prince William Sound was disrupted, in many cases for years, as the livelihoods of fisherman, both commercial and sport, depended on the catch of salmon and herring. Furthermore, connection to the land and sea being an

essential and integral part of Alaska Native identity, traditional subsistence fishing was impacted. Exxon spent \$2 billion cleaning up the Exxon Valdez spill, while nearly \$300 million was paid to residents of Prince William Sound. A jury ultimately awarded \$5 billion in punitive damages, but Exxon was able to successfully appeal for 14 years until the U.S. Supreme Court cut the dollar amount to \$500 million.

Nearly three decades after the spill, many scientific, environmental, socioeconomic, emotional, financial, legal, and political implications are left to consider.

For PDF version, click [here](#).

Assessment:

In a class of 32 students, over the course of one week (five one-hour class periods), beginning on Monday, both the human and environmental toll of the Exxon Valdez oil spill will be examined.

At the beginning of the lesson, ask students to write a blog post about what they know about the Exxon Valdez oil spill. Assure the students that this is confidential and will not be shared with anyone else. Their posts may be as short as one paragraph. At the conclusion of the exercise, students will be asked to revisit and revise their original post with what they have learned.

Activity:

Students will determine the monetary value to be paid to victims of the oil spill. This is a hypothetical exercise that deviates enough from



an actual civil trial (no defendant and plaintiff attorneys), but it is an opportunity for students to examine the consequences of Exxon Valdez.

Process:

1. In a class of 32, twenty students will be divided into an even number of teams. These teams will represent interest groups harmed by the oil spill.
2. Encourage the students to have fun with picking who their team will represent (even though it is a serious subject the class is considering). Teams may choose to represent groups such as:
 - a. people (commercial/sport fishermen)
 - b. organizations (tour companies),
 - c. marine mammals
 - d. other
3. Each team is required to prepare arguments during the week for how much of \$5 billion their group should get. In this, they are learning about how the Exxon spill impacted whom they are representing, and putting a dollar value on it. During the hearing, each team will be given ten minutes to provide expert testimony, backing up their claims. Furthermore, it will be noted that only three of the five teams will be rewarded from the \$5 billion, so they should be prepared with clear arguments as to why they deserve the money.
4. Students not representing interest groups will play the judges and the jury. Nine students will serve as the jury, doing their own research during the week on Exxon Valdez, ideally being informed

jurists during the team testimonies. The jury will keep a record sheet, divided into two columns, taking note on the left side as to which team is most deserving, and on the right side, which team is least deserving. At the conclusion of the testimonies, the jury will have three minutes to write any questions they have for three-judge panel.

4. Three students will serve as the judges, each of whom, like those serving on the jury, will do their own research on Exxon Valdez, allowing them to have an understanding of the kinds of testimony they will hear from each of the five teams. During team testimonies, the judges will keep notes, and may ask questions themselves, as well as relating any questions from the jury.

5. The jury will then relocate to another room to consider among themselves how the \$5 billion should be divided. They will have 15 minutes to do this.

6. At the same time, the three-judge panel will go to another room to come up with their own conclusions as to which team should get the money, and how much.

7. Once the jury returns, a foreman (chosen from among themselves) will declare which three of the five teams will get a slice of the \$5 billion.

8. The three-judge panel listens to the jury foreman, but has set aside their own verdict, which they will share at the end.

The interest is in seeing if the judges and the jury agree.

During the week, all students will do their own research, and may even choose to contact, by email, phone, or in person, experts in the community who may provide insight into their case, which they can then use in testimony. This will be particularly helpful to the nine-member jury and the three-judge panel.

Cultural Standards:

Ultimately, this exercise will lead students to discover the value of the environment and the people of a region who earn their livelihood from it. What is the value of oil to the economy of Alaska, and more broadly, on a global scale? In what ways should we balance the need for petroleum-based resources with protecting the environment of Alaska?

Cultural Standard for Educators: E.

<http://ankn.uaf.edu/publications/standards.html>

Guiding Questions for Teachers

- Where does Exxon Valdez fit into the history of oil spills (e.g. Deepwater Horizon, 2010)?
- How as public opinion of the oil industry changed, if at all, as a direct result of Exxon Valdez?
- As a devastating human-caused environmental disaster, how did the Exxon Valdez oil spill affect the mythology of Alaska as a pristine wilderness?
- How did governmental, business, and environmental agencies respond to Exxon Valdez, and in what ways have

References

(n.d.). Retrieved June 29, 2016, from <http://www.theatlantic.com/photo/2014/03/the-exxon-valdez-oil-spill-25-years-ago-today/100703/>

Exxon to Offer Its Arguments To the Jury. (1994). Retrieved June 29, 2016, from <http://www.nytimes.com/1994/08/22/us/exxon-to-offer-its-arguments-to-the-jury.html?rref=collection/timestopic/Exxon> Valdez Oil Spill (1989)

T. (2013). Exxon Valdez Oil Spill: In the Wake of Disaster | Retro Report | The New York Times. Retrieved June 29, 2016, from <https://www.youtube.com/watch?v=VaRdUHrUnBs>

History Channel Exxon Valdez Oil Spill. (n.d.). Retrieved June 29, 2016, from <http://www.history.com/topics/us-states/alaska/videos/history-exxon-valdez-oil-spill>

https://en.wikipedia.org/wiki/Exxon_Valdez_oil_spill

CUAYAQ

Alutiiq word for “drum” and for “music.”

Related Glossary Terms

Drag related terms here

Index

Find Term

Chapter 2 - Music of Southcentral Alaska

K'QENAGA QILANEN

Dena'ina word for “song leader;” someone who is responsible for the songs and occasionally writes new words to existing songs

Related Glossary Terms

Drag related terms here

Index

Find Term

Chapter 2 - Music of Southcentral Alaska

MONOPHONY

Referring to a melody that has only one line sung without accompaniment or harmony. A group of singers singing the same melody is singing monophonically.

Related Glossary Terms

Drag related terms here

Index

Find Term

NUCH'ILGHELI

Plank drum made from spruce, cradled by two people on opposite sides for maximum resonance. It is usually about four feet long and two inches thick. One person has the honor of protecting the drum

Related Glossary Terms

Drag related terms here

Index

Find Term

Chapter 2 - Music of Southcentral Alaska

UNGAPPED SCALES

A scale including more than seven notes, usually with augmented steps and several semitones.

Related Glossary Terms

Drag related terms here

Index

Find Term