

Qayat Igait—Kayak Designs & Making Pigment

Kodiak Alutiiq Qayat—Kayaks and Maritime Traditions

Grade: Upper Elementary School (Grades 4 & 5)

Time: 5 Days

Lesson Description: Students learn about Alutiiq *qayat*—kayaks, explore *qayaq*—kayak decoration, and create their own pigments to paint personalized decorations.



Image: Kayak Designs. Drawing by Chloe Ivanoff, *Unigkuat* Kodiak Alutiiq Legends.

Alutiiq Vocabulary*	Art Elements	Art Principles	Content Connections
<i>Qayaq</i> —Kayak <i>Qayat</i> —Kayaks <i>Igait</i> —Design <i>Salaq</i> —Clam shell <i>Aigaq</i> —Human hand <i>Agyaq</i> —Star <i>Kiani</i> —Charcoal <i>Tan'eryluni</i> (N)/ <i>Tamlarluni</i> (S)—Black <i>Kraasirluni</i> —Paint, Color <i>Kawisqaq</i> —Red <i>Qatesqaq</i> (N), <i>Qat'sqaq</i> (S)—White <i>Cungaq</i> , <i>Cungasqaq</i> —Blue/Green <i>Qayanguaq</i> —Single-hatched <i>Qayaq</i>	<input checked="" type="checkbox"/> Line <input checked="" type="checkbox"/> Shape <input checked="" type="checkbox"/> Color <input checked="" type="checkbox"/> Value <input checked="" type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input checked="" type="checkbox"/> Pattern <input checked="" type="checkbox"/> Rhythm/ Movement <input checked="" type="checkbox"/> Proportion/ Scale <input checked="" type="checkbox"/> Balance <input checked="" type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	AK Science Standards AK Art Standards AK Cultural Standards

*(N)=northern way of speaking Kodiak Alutiiq, (S)=southern way of speaking Kodiak Alutiiq

Kit Includes:

- *Unigkuat* Kodiak Alutiiq Legends book – *Qayat Igait*—Kayak Designs story
- *Qayat Igait*—Kayak Designs Template for Painting

Materials Needed:

- Charcoal from a fireplace or fire pit, or charcoal briquettes from the store
- Grinding rocks or mortar & pestle
- Paper plates and small paper cups
- Paintbrushes & water
- Measuring spoons ($\frac{1}{4}$, $\frac{1}{2}$, & 1 teaspoons)
- Eye droppers or other tools to dispense small amounts of water
- Pencils & watercolor paper
- Various binding agents – Wesson oil, coconut oil, honey

Extension activity materials:

- Artificial gut skin (sausage casings)
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Objectives and Assessment Criteria:

Students will learn...

- About Alutiiq *qayat* and their decoration,
 - How to use natural materials to make black pigment,
 - How adding varying amounts of liquids to pigments can make paint of different consistencies
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Alaska State Standards:**Science Standards**

- 5-PS1-2 Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. [Clarification Statement: Examples of reactions or changes could include phase changes, dissolving, and mixing that form new substances.] [Assessment Boundary: Assessment does not include distinguishing mass and weight.]
- 5-PS1-3 Make observations and measurements to identify materials based on their properties. [Clarification Statement: Examples of materials to be identified could include baking soda and other powders, metals, minerals, and liquids. Examples of properties could include color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, and solubility; density is not intended as an identifiable property.] [Assessment Boundary: Assessment does not include density or distinguishing mass and weight.]
- 5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances. [Clarifying Statement: Share finding from the investigation.]

Art Standards

- Anchor Standard #1: Generate and conceptualize artistic ideas and work.
- Anchor Standard #2: Organize and develop artistic ideas and work.
- Anchor Standard #7: Recognize and analyze artistic work, including those from diverse cultural traditions.
- Anchor Standard #11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

Cultural Standards

- A. Culturally knowledgeable students are well grounded in the cultural heritage and traditions of their community.
 - D. Culturally knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.
 - E. Culturally knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them.
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Cultural Relevance:

Qayaq Use

For thousands of years the *qayaq* was one of the most important tools in Alutiiq communities. Carefully crafted and well-maintained boats were a lifeline and allowed Alutiiq ancestors to harvest fish and sea mammals, travel and trade great distances, and carry families and supplies.

Qayaq Shape

The Alutiiq managed the dangerous waters of the Gulf of Alaska with the specialized design of their *qayat*. An upturned bow cuts through the waves, and a flexible wooden frame helped the boat slip through rough waters. A well-oiled sea mammal hide covered the frame like a glove and was held on with waterproof stitching. *Qayat* could have one, two, or three hatches. A *qayanguaq*—single-hatched *qayaq* was the most common. People used these boats daily for traveling, fishing, and hunting fast animals like porpoises and whales.

Special Designs

Alutiiq people painted designs on many traditional objects. Sometimes they painted themselves, decorating their skin with tattoos and body paint. Specialized *qayaq* tools like paddles and bailers, and hunting and fishing gear used while in a *qayaq* were often decorated with beautifully painted designs. These designs could be spiritually powerful. An Alutiiq legend from 1872, *Qayat Igait*—Kayak Designs, shares how people began to paint their *qayaq* covers with special images.

“...he built a qayaq—kayak with one hatch and painted one side of the qayaq red and the other side black. On the cover of the qayaq, he painted the following images. On the front left, he painted a large clam salaq—shell, on the front right, a human aigaq—hand, on the back left, an agyaq—star, and on the other side, a qayaq. He repeated the same figures on his float and the palm of his hands.”

(Full legend available in Unigkuat - Kodiak Alutiiq Legends and attached to this lesson plan)

Why did paddlers add designs to their qayat? The images were symbols of helping spirits, powerful ancestors, or important accomplishments in the hunter's life. The symbols provided support for hunters as they pursued animals in windy waters. Alutiiq people often used circles on hunting gear. These images represented both an eye and a passageway. Vision is important for hunters and the circle image suggests the ability to see and find animals. The circle is also a passageway into other worlds, like the sea world where animal spirits live.

Traditional Colors

Black, white, red, and blue/green are the central colors recognized in the Alutiiq language. They are also the most common colors in Alutiiq artwork. Alutiiq people made black paint from a variety of raw materials.

Black Paint

Before the availability of commercially manufactured pigments, the Alutiiq people created paints from plants and minerals. Sometimes they ground charcoal and mixed it with oil or blood to make black paint. Another way to make black pigment was by collecting a specific stone from cliff faces, or it could be produced from copper ore. Artists ground these materials into fine powders using stones, and then stored them in small skin bags. To make paint, they mixed the powder with a binder of water, blood, oil, or even fish eggs.

Artists applied paint to objects with their fingers, a small stick, or a paintbrush made with animal hair. Archaeologists studying late prehistoric village sites have found small, decorated handles with a tiny knob on one end. Bristles may have been tied to these delicate knobs for fine painting.



Create:

Day 1

- Ask students if they have ever seen or been in a *qayaq* before. What are the features of the boat (e.g., low to the water, long and narrow, designed to be paddled). Follow up by asking students if they have seen or been in an Alutiiq-style *qayaq*. What do they think might be the features of an Alutiiq *qayaq*?
- Share the video:
 - *Alutiiq Consultants on Kayak Collaboration* (Peabody Museum of Archaeology & Ethnology) [YouTube: 4:30]
<https://www.youtube.com/watch?v=ETPHuyKICnY>
- Share the video:
 - *Uncovering Kayaking Traditions* (30:26), from the Alutiiq Museum's Fall Lecture series in 2016 - <https://vimeo.com/185088462>
 - How was the *qayaq* acquired? By whom?
 - What stitch was used to sew the *qayaq*?
 - What type of hair is sewn into the *qayaq*?
 - What was the seal gut/intestines used to make?
 - Why did men know how to sew?
- Ask students to share similarities and differences between *qayat* made today and traditional Alutiiq-style *qayat*. This can be done in groups with a comparative graph or as a whole class on the board. Here are some examples:
 - Many modern *qayat* are made by machines with materials like plastic, fiberglass, and carbon fiber. Alutiiq *qayat* are handmade out of wood, animal hides, and sinew.
 - Many modern *qayat* are made in standard sizes. Each Alutiiq *qayaq* was made to fit the proportions of its owner based on their body measurements.
 - The Alutiiq *qayaq* has a split bow for cutting through the waves. It is expertly designed for the windy waters around Kodiak.
 - Alutiiq people decorated their *qayat* with special symbols. Each one was unique.

Day 2

- Share with students that the Alutiiq people adorned their *qayat* to provide protection, luck, connection to animals, ancestors, spirits, and personalization. They sewed items into the seams – like beads and hair. They painted designs on the cover. They stored amulets (personal charms) inside.
- Read the legend *Qayat Igaa'it*—Kayak Designs aloud to the class (attached to this lesson plan). Ask the students to describe the symbols the Alutiiq hunter painted on his *qayaq* and what they represented.
- Share examples of Alutiiq designs from the *Painted Elements from Alutiiq and Unangax̂ Hats* handout—attached to this lesson plan.
- Have the students imagine their own *qayaq* designs. What symbols would they use to represent themselves?

- Have students work individually with a piece of white paper and a pencil to draw 4 symbols they would paint on their own *qayaq*—these symbols could represent themselves, their family, an important event, or the activities their *qayaq* would be used for.
- Have students label each symbol with a sentence about its meaning. What does the symbol represent and why is it important?
- Have students present their symbols to their table group or the class.

Day 3

- Explain that Alutiiq artists had to make paint. They couldn't buy paint from a store like we do today.
- Traditionally the Alutiiq people would make black paint from materials available from the land. Have students brainstorm different things in nature that could be used to make the color black.
- Share the different resources with the students along with the Cultural Relevance sections on Traditional Colors and Black Paint.
 - *Alutiit Kraas'kait* Alutiiq Colors handout:
<https://alutiiqmuseum.org/wpcontent/uploads/2024/01/Colors2022.pdf>
 - Alutiiq Word of the Week:
 - Charcoal—*Kiani*q:
<https://alutiiqmuseum.org/collection/Detail/word/148>
 - Black—*Tan'eryluni* (N), *Tamlarluni* (S):
<https://alutiiqmuseum.org/collection/Detail/word/125>
 - Paint, Color—*Kraasirluni*
<https://alutiiqmuseum.org/collection/Detail/word/383>
- Inform students they will be making black paints. They will experiment with adding different amounts of water to charcoal powder to make a watercolor paint. Then they will experiment by adding fatty binding agents to their charcoal powder. They will use these paints to make a charcoal powder paint sampler to paint Alutiiq designs on a paper *qayaq*.
- Have students carefully grind lumps of charcoal in a mortar and pestle or with a rock on a paper plate. Collect the ground charcoal on a paper plate and store it in a zip-lock bag labeled with each student's name.
 - Remind students to be gentle and careful when grinding. This can be a messy process. The more they grind up the charcoal, the less gritty their paint will be.

Day 4

- Return the ground charcoal to each student.
- Hand out small paper cups and paintbrushes. Make watercolor paints with ground charcoal and water. Experiment by adding just a little water (¼ teaspoon) vs. a lot of water (1 teaspoon) to (1 teaspoon) of ground charcoal.
- Students will start making their charcoal powder paint sampler. Direct them to paint a line for each watercolor paint experiment. Further experiment with applying the paint using a brush vs. using your fingers.

- Have the students take notes in pencil onto the sampler explaining each kind of paint.
- Have students create another set of black pigments by mixing a small amount of ground charcoal with a fat (ex: Wesson oil or coconut oil) or try mixing the same amount with honey. If the oil or honey are too stiff, warm them up first.
- Have students paint these pigments onto their Charcoal Powder Paint Sampler, adding labels in pencil.



Photo: Charcoal powder paint sampler with water, oil, coconut oil, and honey applied with brushes and by fingers.

- Have students select their favorite pigment (watercolor or fat-based) to paint their personal symbols on a *qayaq* drawing (template attached).

Close and Assessment:

- Students learned about Alutiiq *qayat* and the ways hunters painted symbols.
- Students designed their own symbols inspired by Alutiiq graphic arts.
- Students created a charcoal powder paint sampler.
- Students painted their personal symbols on the *qayaq* outline.
- Students can identify ways of making black paint from natural materials.

Modifications:

- Students can bring in a variety of natural materials to try and create other black pigments. Try grinding local minerals, rocks, and soils. Use the same method

outlined above to create different shades. Then, create a sampler on watercolor paper noting the variables in pencil.

- Students can experiment with adding charcoal powder to other binding agents like fish eggs or oil.
- Students could try painting on artificial gut skin. You can use sausage casing sheets available from online retailers.
- Students can experiment with which paint sticks best to the gut skin? Water-based pigment or fat-based? Record how long it takes the pigments to dry on the gut. Once dry, are these paints water soluble?



Photo: Paint on artificial gut/sausage casing sheet, water-based pigment (left), oil, coconut oil, and honey-based pigments (top to bottom).

Additional Resources:

- Video: How to forage for Natural Pigments! [Jyotsna Pippal: YouTube] (4:36)
<https://youtu.be/-TTEjbK-YhQ?si=g80WwpRq2nLna3mG>
- *Igaruacirpet*—Our Way of Making Designs book developed by the Alutiiq Museum—Chapter 4, Painting
- Alutiiq Arts: Carving: <https://alutiiqmuseum.org/alutiiq-people/art/arts-blog/carving/>
- *Keligcipet* — Carving Traditions: <https://alutiiqmuseum.org/wp-content/uploads/2023/10/CarvingTraditions2022.pdf>
- *Percipet* — Bending Traditions: <https://alutiiqmuseum.org/wp-content/uploads/2023/12/BendingTraditions2022-copy.pdf>
- Alutiiq Arts: Graphic Arts: <https://alutiiqmuseum.org/alutiiq-people/art/arts-blog/graphic-arts/>
- *Namiutat*—Graphic Arts: <https://alutiiqmuseum.org/wp-content/uploads/2023/10/GraphicArts2022.pdf>
- Amutat Database: Kayak: <https://alutiiqmuseum.org/collection/Search/amutatObjects?search=kayak&view=images&l=all>

- Alutiiq Word of the Week Archive: Kayak—Qayaq
<https://alutiiqmuseum.org/collection/Detail/word/303>
- Alutiiq Word of the Week Archive: Prow, Bow—Qayam cuunga
<https://alutiiqmuseum.org/collection/Detail/word/563>
- Alutiiq Word of the Week Archive: Measure—Uspelluku
<https://alutiiqmuseum.org/collection/Detail/word/665>
- Alutiiq Word of the Week Archive: Two-hatched Kayak—Qayarpak
<https://alutiiqmuseum.org/collection/Detail/word/601>

Quyanaa—Thank you.

This lesson plan was produced with generous support from a Maritime Heritage grant from the Alaska Office of History and Archaeology and the National Park Service.



Qayat Igaa'it Kayak Designs

Once near a cape at the entrance to a bay, there lived a marine animal about the size of a cat that would capsize all the **angyat–open skin boats** that went around the cape. The Alutiiq people considered this place very dangerous and stayed far away from the cape, not daring to come close. One day, a young Alutiiq man decided to kill the animal. To do this, he built a **qayaq–kayak** with one hatch and painted one side of the *qayaq* red and the other side black. On the cover of the *qayaq*, he painted the following images.

On the front left, he painted a large clam **salaq–shell**, on the front right, a human **aigaq–hand**, on the back left, an **agyaq–star**, and on the other side, a *qayaq*. He repeated the same figures on his float and the palm of his hands. Then he took a spear with which he had killed five men and left without telling anyone about his plans. In the place where the animal was supposed to be, he heard a sort of whispering, then a lapping. Then he saw the animal moving toward his *qayaq*. “Against me,” he said, “you cannot do anything.” Then he showed the large clam *salaq* and said, “You see this figure, the *salaq*? It is the power of the sea, which can seize you.” Showing the human *aigaq*, he said, “You see this *aigaq*, it is the power of man, who can seize you.” Now while displaying the *agyaq*, “You see this *agyaq*, it shows you the power from higher up, which can also seize you.” And finally showing the *qayaq*, “You see the *qayaq*, it shows you how it can contain you.”












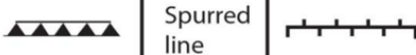


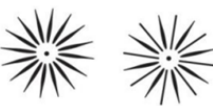

While he was speaking, the animal was circling the *qayaq*. The Alutiiq man grabbed the spear with which he had killed five men, and throwing it, killed the animal. He took the animal’s body to the shore and spent the night there. When he returned to the village, everybody thought he was dead. He did not tell anyone that he had killed the beast at first. Then he asked who in the village would go with him toward the cape. When everyone refused, he decided to tell them he had killed the animal.

To remember this event, people paint figures on the *qayaq* to protect them if they meet a monster at sea.

Adapted from an Afognak Island legend told to Alphonse Pinart by Nikkepon Celeznoff in 1872, from a translation by Céline Wallace. Pinart Papers, Bancroft Library, University of California Berkeley. See also, Koniag, Inc. (2008:63).

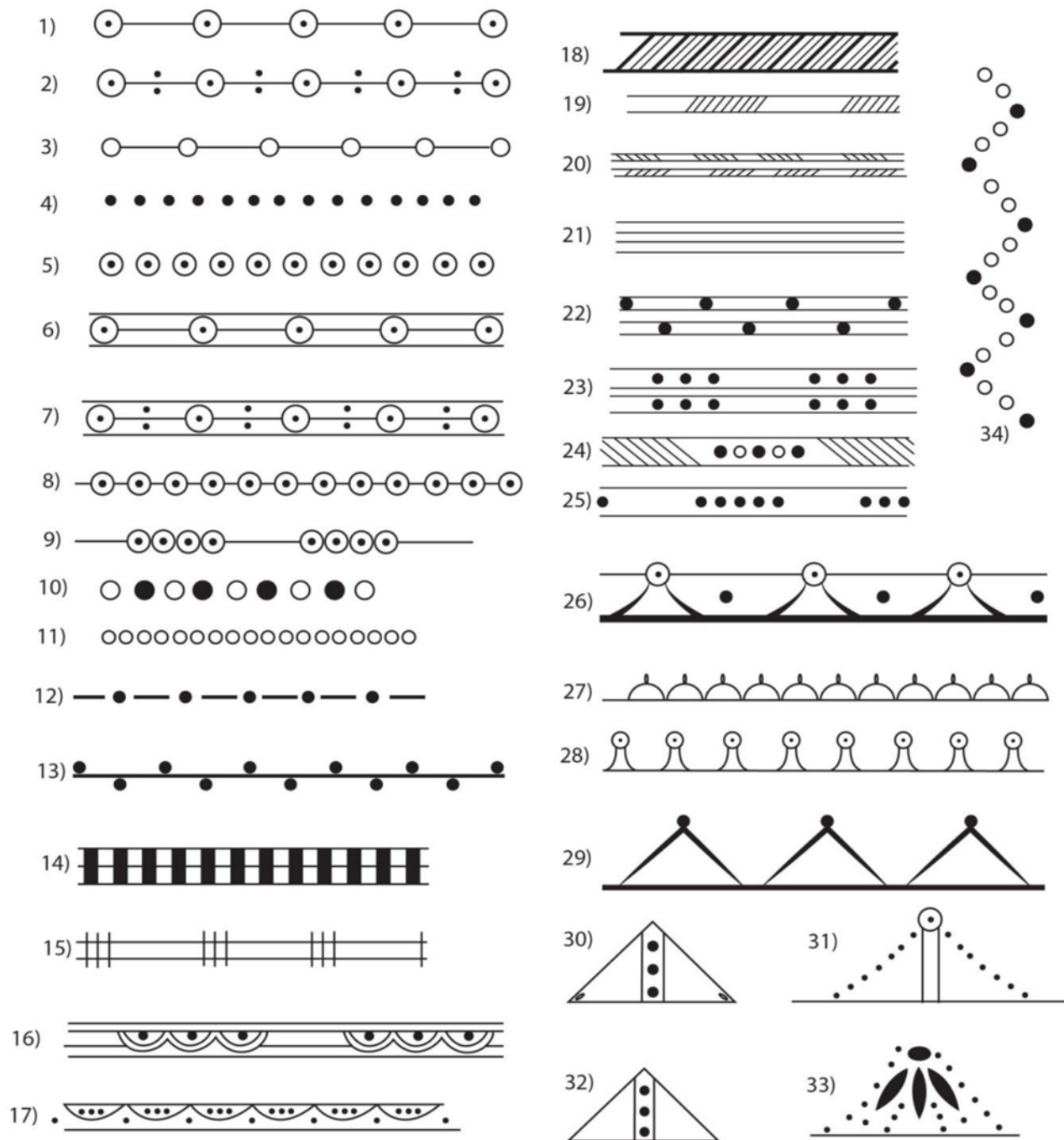
Painted Elements from Alutiiq and Unanga Hats

From: Glory Remembered Wooden Headgear of Alaska's Sea Mammal Hunters, Lydia T. Black, 1991, Alaska State Museum, Juneau.

Parallel bands design			
Spirals			
Curvilinear		Complex geometric designs	
4-Spur		Geometrics	
Rosettes		Circle-and-dot design	
Floral		"eye" design	
8-spur		Tooth or killer whale motif	
12-spur		Anthropomorphic/Representational	
16-spur		Zoomorphic/Representational	

Painted Elements from Alutiiq and Unangax̂ Hats

From: Aleut Hunting Headgear and its Ornamentation, S. V. Ivanov, 1930, Proceedings of the Twenty-third International Congress of Americanists.



Qayat Igait—Kayak Designs
Template for Painting

