

TRADITIONAL TRANSPORTATION: BUILDING A FULL SIZE QAYAQ GR 9-12 (LESSONS 11&12)

Elder Quote/Belief: "...I was kind of curious as to how they got the skin off the seal, skins for the use of on the cover the baidarkis—and she said they'd bury the seal skins for – I can't remember the amount of time – but they'd have a certain formula. I'm sure leave [them] in the ground for so long until they started to ferment or almost start to rot, and they pull them out of the round and [took] and ulu [to] scrape all the fur off."

Bill Hjortⁱ

Grade Level: 9-12

Overview: The Chugach qayaq was developed over thousands of years of innovation. Each qayaq was hand carved, and lashed together with sinew or baleen. The development of the bifurcated bow allowed the qayaq to cut through ocean waves and deflect water away from the paddler. With each wave the qayaq was designed to flex with the wave, moving through the water with ease. The qayaq bifurcated bow was designed for buoyancy, and tracking in the water. The bow was also designed for seal hunting because a hunter could hook an ice berg onto the front of the qayaq to hide from seals, and sea otters in the ice flows. Traditionally, the Sugpiaq have been known to travel vast distances in their qayaq for hunting, and trading. The Sugpiaq paddler would kneel and paddle with a single bladed paddle, can you imagine sitting on your knees for long periods of time?

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
E4: Culturally-knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them. A student should determine how ideas and concepts from one knowledge system relate to those derived from another knowledge system.	B2: A student should understand and be able to apply the concepts, models, theories, universal principles, and facts that explain the physical world.	MC1: Different kinds of wood have different qualities and different uses; wood can be obtained from the forest and from driftwood.

Lesson Goal: Students, Elders, recognized experts and community members will build a full size Chugach style qayaq.

Lesson Objective(s): Students will:

- Learn about the purposeful design and characteristics of the Chugach qayaq.
- Build a full sized traditional Sugpiaq/Chugach style qayaq.

Vocabulary

Words:

Sugt'stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Kayak	Qayaq	qayaq	
Carving			
Sinew			

Materials/Resources Needed:

- If possible, invite an Elder or Recognized Expert from the Region to share their traditional ecological knowledge (TEK) and expertise to enrich the lesson(s).
- View lesson Building a Qayaq model and directions by Mitch Poling.
- Golden, H. (2015). *Kayaks of Alaska*. Portland, OR: White House Grocery Press. (in kit)
- Reference the following video if you have not previously watched it:
 - The Last Baidarka of Prince William Sound by Andrew Elizage (25:44 minutes)
 - <https://vimeo.com/79394382>
- Community tools recommended by Regional Elder and Recognized Expert
- Measurements for Qayaq refer to Traditional Transportation lesson #3 for directions.

Teacher Preparation:

- Contact your Local Education Coordinator or Tribal office for a list of Elders that could share their expertise on the lesson content.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during their visit.
- Contact your Local Education Coordinator or the Heritage Preservation Department for a list of regional elders who could consult with this project.
- Create a materials list with your Regional Elder, and Recognized Expert.

Examples:

- Wood: Drift wood or dimensional lumber (cedar, fir)
- Sinew
- Sea Lion / Seal or Airplane Fabric for skin covering
- Poly Urethane
- Tools

- If no guest is available review the model lesson and adapt for size as referred to traditional measurements.

Opening:

The Chugach qayaq has a distinctive design attributed to the region. The bifurcated bow was designed to increase the navigability of the qayaq in challenging weather, and rugged coast lines. This design has evolved over thousands of years and has been crucial to the survival and thriving of the Sugpiaq and Eyak people along the outer coast of the Chugach Region and Prince William Sound.

Activities:

Class I:

1. Research traditional qayaqs from the provided materials in the Traditional Transportation kit.
2. View “The Last Baidarka of Prince William Sound” located on the Traditional Transportation thumb drive.
3. Develop a plan as a class to involve community in the building of a full length Qayaq.
 - a. Divide class into project groups to develop a comprehensive plan for a list of Elders, community partners, project space and funding partners.
 - b. Review materials on Traditional Measurements provided in the kit
 - b.i. Chugach Eskimo
 - b.ii. The Hunter and the Hunted

Project Groups:

Materials: based on Elder and Expert suggestions and knowledge or research

Location: community space

Tools: Use of community tools from family, relatives, tribe, school, etc.

Fundraising: Find a cost effective way to pay for materials (grants, donations, tribal funding)

Timeline: Develop time for working on the Qayaq project and a timeline for beginning and completing project.

4. Safety
 - a. Discuss and participate in any school district mandated videos/tests/permission slips for Tool and/or safety.
 - b. Send home Carving/ Wood Working Safety Checklist for parent signature.

Class II

Building the Qayaq

1. Students turn in Carving/ Wood Working Safety Checklist

2. Gather students, Elders and community members to discuss project and break into project groups.
3. Decide on traditional measurement the class will use for qayaq length, cockpit circumference, and depth.
4. Design the bifurcated bow from dimensional lumber or driftwood see picture below.

Assessment:

- Students can describe the parts and materials of a Sugpaiq style qayaq in detail.
- Students participate fully in the building the full length qayaq using traditional measurements.
- Student attendance and documentation during qayaq building.



Credit: Nick Jordan

; Chenega Diaries page 243

Carving, Wood Working Safety Checklist

1. Judgement
 - Knives and other carving tools are not toys.
 - Carve only under the direction of a teacher or adult supervision.
 - Carve only when you can focus on your work. Avoid distractions
 - Never bring a knife to school for carving.
 - Horseplay is not allowed near or around carving and knives.
2. Caring for your tool.
 - Keep tools and knives sharp and clean
 - Wear protective safety gear, such as: carving gloves, safety glasses and mask.
 - Store tools in a safe place and never bring tools home.
3. Work Environment
 - Use a clamp, and carving board for better control when carving small or shaped objects.
 - Use a clamp to hold down wood while using a coping saw.
 - Use a bench, sturdy chair and appropriate lighting.
4. Handling Knives
 - Never pass a knife across to other people at the table.
 - Never carve in your lap or near your face or wrists.
 - Take small carving strokes for more control.
 - Never “muscle” a project when carving.
 - Always make sure your knife is sharp. Dull knives are challenging and dangerous to carve with.
 - Never pound or “hammer” your carving knife to make a cut.
5. Choices
 - Choose the correct wood for a project
 - Lay out your project and have plenty of space around you while cutting them out.

Student Signature _____ Date _____

Parent Name _____

Parent Signature _____ Date _____

Emergency Contact Information: Name _____ (907) _____

