How to Make an Alutiiq Beaded Headdress

Developed with assistance from Kayla McDermott
Aleut Girl with Beaded Headdress
Watercolor painting by Helen June Simeonoff, 1996, AM459:51
Nacat were among the elaborate clothing worn at Alutiiq winter festivals. Participants in these events displayed their prosperity and honored the spirit world by wearing beautifully crafted garments. The materials and decorative elements used in these garments reflected their wearer’s age, gender, and social position. Wealthy Alutiiq people wore elegantly decorated parkas of valuable sea otter, fox, or ground squirrel pelts. Nacat, jewelry, and tattoos added to the appearance of prestige conveyed by rich materials. The less affluent wore simple clothing of common materials like bird skins. Whatever your status, your clothes provided a link to the spiritual world. Every animal skin imparted the qualities of the animal to its wearer. Alutiiq people kept their garments clean, well repaired, and nicely decorated to show respect for the creatures that supported human life.

Women’s nacat were typically made from hundreds of glass beads strung on sinew. Strands of small beads were tied into a tight-fitting cap with many dangling lengths attached to the sides and the back. These attachments often featured larger, heavier beads that swayed, glittered, and jingled as the wearer moved. In Prince William Sound, the daughters of Alutiiq chiefs wore nacat of beads and dentalium shells that extended far down their bodies, sometimes reaching their heels. Beaded nacat were often accompanied by matching earrings, chokers, necklaces, and belts. Teenage girls and young women wore these lavish ornaments to symbolize their passage into adulthood and availability for marriage.

TERMS
Nacaq (singular) – one headdress
Nacak (dual) – two headdresses
Nacat (plural) – three or more headdresses
The Nacaq Project

How can I make a headdress? Do you have instructions? Is there a class I can take? The Alutiiq Museum hears these questions often. Beading is popular across the Alutiiq world and many people want to make the iconic nacaq, the elaborate beaded cap worn by women for celebrations. The nacaq is the most beloved piece of Alutiiq beadwork, but it is also the most complicated. It takes thousands of beads and hours of careful counting, sewing, and knotting to create this garment.

To preserve and share the nacaq, the Alutiiq Museum partnered with artist Kayla McDermott. Kayla is an experienced beader and talented instructor.

In 2022, we filmed her making a nacaq and created video tutorials to take viewers through the entire manufacturing process. We also collaborated on this matching instruction booklet. Together the videos and written directions illustrate how to create a nacaq from start to finish. Now anyone can build a nacaq with the right supplies and a bit of patience.

Find a digital copy of these instructions and our video tutorials on the beading page of the Alutiiq Museum’s website, at www.alutiiqmuseum.org.

Kayla McDermott beading a nacaq in the Alutiiq Museum, 2022.
Supplies and Suppliers

FROM SHIPWRECK BEADS:
https://www.shipwreckbeads.com
Size 6 seed beads (72 strands of 180 beads)
Accent beads (500 beads)
John James three-piece leather needle set (Flz81-L)
Nymo beading thread, size F, (50TN112-B) 1049 yards

FROM MOSCOW HIDE AND FUR:
https://www.hideandfur.com/
Brain-tanned deer hide (8" x 24")

Tools

Scissors
Exacto Knife
Tape Measure
Pen
Disposable Lighter (Optional)
Plate or Tray (to hold beads)

Note: Nacaq can be made in different lengths and with a variety of bead sizes. However, if you select beads different than those listed here, it will effect the measurements provided in these instructions.
INSTRUCTIONS

Part 1 – Getting Started

Nacaq Pieces

Nasca Cap

Qikiruat
Bang Fringe

Caniqaa
Side Fringe

Pamyua
Tail or Train

Teacher–Litnauwista, by Kayla McDermott
Layout of a Nacaq

Each row is made of vertically beaded strands

Materials

Preparing Materials
1.1 Prepare the leather pieces needed to make the cap. There will be a round leather piece for the top of the kangra–crown, and four leather strips that make up the cap. Measure out and draw these 5 pieces onto your leather.

| Strip 1 (15 ½” x ½”) |
| Strip 2 (21 ½” x ½”) |
| Strip 3 (24” x ½”) |
| Strip 4 (24” x ½”) |

2 ¼” Diameter circle

1.2 Cut out the leather circle and strips using an Exacto knife or scissors.

1.3 Sew the four strips into bands.

Start with Strip 1. Thread a leather needle using Nymo thread. You will need just enough thread to secure the two ends of the leather to make a band. Tie a knot at the end of the thread.

The leather has a smooth side and a rough side. The smooth side will be on the outside of the nacaq. The rough side will be on the inside. Put the ends of the strips together with the smooth side of the leather touching. You will work inside out so that the seams are hidden. Sew the ends together by stitching in one direction, then back again. Sew through the last loop to tie an initial knot. Then make another knot by following the instructions on page 7.

![Diagram A](image)

Thread through the last loop to tie an initial knot.
To tie a knot:

Tie a second knot by going halfway under the leather, make a small loop, and pull your needle back through the loop. Pull tight. Cut the excess thread and burn the ends with a lighter so they don’t fray.

From knot 1, make another loop by going halfway under the outside of the leather strip.

Take needle and thread through the loop you just created.

Pull tight to secure the second knot.

Repeat this process so that all four strips of leather form four separate bands.

15½” Band
21½” Band
24” Band
24” Band
Mark the *kangra*—crown and cap leather pieces. These markings will help you space your bead strands evenly. First mark the circle crown piece.

Mark the 2 ¼” crown circle piece with 48 evenly spaced marks. The diagram below shows how to break down the spacing to keep the marks even. Start with the halves, quarters, and then eighths. Make your eighths a little bolder or longer, as they are important markers. Make a mark in the middle of the eighths, then two more marks between each space to make 48 evenly spaced marks.
1.6 Mark the four bands. Each band will have a top and bottom with different numbers of marks. It is important to note which is the top and bottom. Start with strip 1, the 15 ½" band.

Strip 1 will have 48 marks on the top and 96 marks on the bottom.

Begin by marking the halves. The seam should be considered the first mark, and will be the back of the nacaq. Make quarter marks, then eighths. The eighths are important as they note the beginning and end of each section. Make 5 evenly spaced marks between the eighths to equal 48 marks at the top. Then mark the bottom. Make 11 marks between the eighths to equal 96 marks at the bottom.
1.7 Mark strip 2. Strip 2, the 21 ½“ band, will have 96 marks on the top and 128 marks on the bottom.

Begin by marking the halves. Make quarter marks, then eighths. Make 11 evenly spaced marks between the eighths to equal 96 marks at the top. Then mark the bottom. Make 15 marks between the eighths to equal 128 marks at the bottom.
Mark strip 3. Strip 3, the first 24” band, will have 128 marks on the top and 144 marks on the bottom.

Begin by marking the halves, quarters, then eighths. Make 15 evenly spaced marks between the eighths to equal 128 marks at the top. Mark the bottom of strip 3. Make 17 marks between the eighths to equal 144 marks at the bottom.
Mark strip 4. Strip 4, the second 24” band, will have 144 marks on the top and 144 marks on the bottom.

Begin by marking the halves, quarters, then eighths. Make 17 evenly spaced marks between the eighths to equal 144 marks at the top. Mark the bottom. Make 17 marks between the eighths to equal 144 marks at the bottom.
Part 2 – Building the Cap
Note on bead count and cap style options:

Because there are 4 rows in this cap pattern, the bead count will be:
Row 1 is 12 beads long
Row 2 is 12 beads long
Row 3 is 12 beads long
Row 4 is 9 beads long

Some prefer to have a cap with 3 rows instead of 4. If you choose to end your nacaq at the third row, the bead count will be:
Row 1 is 12 beads long
Row 2 is 19 beads long
Row 3 is 19 beads long
Bead the eighths section dividers and their middle marks first.

2.1 Bead row 1, the kanga–crown.

The marks made will indicate where to bead the strands. Each band uses the eighths marks as section markers. Bead the section markers first, starting with the seam of the band.

Thread your leather needle and tie a knot.

Start the first strand by going through the marked side of the circle piece.

Add 12 beads. You can create any 12 bead pattern of your choice or even use 12 beads of a solid color.

Connect the 12 bead strand by pushing the needle through the smooth side of the 15.5” leather strip at the seam. Make sure it is the top half of the 15.5” band.

Tie off the strand (see page 9). Make a loop by going halfway under the leather (on the rough side of the band), so the thread does not show through the smooth side. Pull up and go through the loop you created. Make sure the threaded beads are tight and pull the needle and thread through the loop to tie the knot. Cut off excess thread, burn the ends of the thread, and press the melted strands down.

Bead the eighths section markers first. Tie off each strand, cut the thread, and burn the ends.

Once the sections are beaded, bead the center point of each section. Beading in this order, and using the leather markings, helps keep strands even and organized.

Then bead two strands between the remaining spaces. There should be 48 strands total.

Once you have beaded all 48 strands, check to make sure you have burned the ends of the thread after every knot. Then you have finished the first row of the nacaq.
2.2 Bead row 2.

Connect the top of the 21.5” band to the bottom of the 15.5” band with strands of 12 beads. There will be a total of 96 strands in row 2.

Bead the eighths sections first. There will be 11 strands between each section.

Always start a new row by connecting at the seams first. The seams should be at the back of the nacaq, and mark the center.

Thread a needle, tie a knot at the end of the strand, and push your needle through the marked side of the 15.5” band at the seam. Add 12 beads. Connect the beaded strand to the top of the 21.5” band at the seam. Tie a knot like you did for the first row, and burn the thread ends.

Continue beading until all 96 strands are strung, tied off, and the thread ends burned.
2.3 Bead row 3.

Connect the bottom of the 21.5" band to the top of the first 24" band. **Pay close attention to be sure it is the first 24" band with 128 marks on the top and 144 marks on the bottom, as the second 24" band has a different number of strands!**

For the third row, begin by sewing through the seam at the bottom of the 21.5" band. Bead 12 beads. Sew through the top of the 24" band at the seam, tie a knot, and burn the thread ends.

Bead the eighths sections first, like you did for the other rows, then bead the 15 strands between. There will be 128 beaded strands in this row.

Make sure all knots are secure and the thread ends burned.
2.4 Bead row 4.

Connect the bottom of the first 24” band to the top of the second 24” band.

For the fourth row, begin by sewing through the seam at the bottom of the first 24” band. Bead 9 beads. Sew through the top of the second 24” band at the seam, tie a knot, and burn the thread ends.

Bead the eighths sections first, like you did for the other rows, then bead the 17 strands between. There will be 144 beaded strands total in this final cap row.

Make sure all knots are secure and the thread ends burned.
Part 3 – Adding the Fringe
3.1 Mapping out the Fringe

There are 144 marks around the base of the cap. 55 of those marks are reserved for the train, 37 for the bang fringe, 26 for the left side fringe, and 26 for the right side fringe. This diagram will help to identify these sections.

Start with the bang fringe, then work your way from front to back for each section of the side fringe. The train will be beaded last.

Begin by marking the exact center of the front of the nacaq. To find the center, fold the cap in half where the seams line up at the back. Mark an “x” at the mark that sits at the front center. It should be one of the eighth marks.

The seam will be at the back and the front mark should be precisely in the middle of the sections that you are going to fill.
3.2 Bead the *qikruat*—bang fringe.

This section of fringe takes up two of the eighths sections, or 37 strands.

These bang strands will have 11 size 6 beads, one accent bead, and one more size 6 bead at the end of the strand for a total of 13 beads per strand.

Bead the front center mark first, then the strand marking the end of one section to the right, and a strand marking one section to the left. Then fill the 17 strands between each of these sections.

Bead the first strand by adding 11 size 6 beads, one accent bead, then the last size 6 bead. With your needle, thread back up through the strand you just creaded by skipping over the last bead and going through the bottom of the accent bead and up throught the 11 beads. Sew through the smooth side of the band to make your knot in the rough back side of the leather. Tie a knot and burn the ends of the thread.

Repeat this process until all 37 bang strands are beaded.
3.3 Bead the caniqaa—side fringe.

The side fringe takes up 26 strands on either side of the bangs for a total of 52 strands. Each side fringe has three different bead length sections. From front to back: section one is 8 strands of 37 beads, section two is 8 strands of 44 beads, and section three is 10 strands of 51 beads. Mirror this pattern on both sides of the nacaq.

Section one: Begin beading by going through the first mark after the bangs. Add 35 seed beads, 1 accent bead, and then 1 seed bead. Go up through the strand like you did to tie off the bang section. After adding the last bead, go through the hole of the accent bead, then back through the 35 seed beads. Sew through the leather at the top of the strand on the smooth side, and tie off on the rough back side of the leather. Tie off the strand and burn the thread ends.

Bead all 8 strands at this length.
3.4 Section two: The next 8 strands are 44 beads in length. The strand is 42 seed beads, 1 accent bead, and 1 additional seed bead.

Bead 8 strands at this length, following the steps for side fringe section one on the previous page.
3.5 Section three: The last 10 strands of fringe are 51 beads in length. The strand is 49 seed beads, 1 accent bead, and 1 additional seed bead.

Bead 10 strands at this length, following the steps for side fringe section one on the previous page.

Make sure both sides of fringe are beaded.
Part 4 – Creating the Train
There are two ways you can choose to bead the pamyua–train of the nacaq. You can make loose train strands, which would look like a continuation of the side fringe but with longer strands. This style is common in contemporary nacat. The style demonstrated here uses connected rows, a method found in historic Alutiiq nacat.

If you choose to bead loose strands, make the beaded strands 98 beads long. This is a good starting length, but you can make the strands any length. Be sure to use enough string to go back through the strands to tie them off like the side fringe. Follow the directions to learn how to bead a connected train.
4.1 Prepare strips of leather for the *panyua*-train.

![Diagram of strips](image)
There will be 6 rows of beads in the *pamtyua*–train. The first row connects to the base of the cap in the 55 spaces left open between the two sections of side fringe. The last row hangs loose from the fifth strip of leather. Cut 5 strips (9” long by ½” wide) from the leather. Then mark each strip with the following strand count:

**Strip 1**: 55 marks on top, 55 marks on bottom

**Strip 2**: 55 marks on top, 55 marks on bottom

**Strip 3**: 55 marks on top, 55 marks on bottom

**Strip 4**: 55 marks on top, 43 marks on bottom

**Strip 5**: 43 marks on top, 55 marks on bottom

Row 5, between strips 4 and 5, has 43 strand marks because it uses accent beads which are larger than seed beads. If you choose to use seed beads rather than accent beads in this row, make 55 marks like the other rows.
4.1 Bead the first row of the pamyua–train.

There are 55 strands in this row with a bead count of 21 beads long. Sew through the bottom of the cap at the first mark after the end of the fringe on the left. Add 21 beads. Sew through the top of leather strip 1, tie off the strand, and burn the thread ends. To keep the row even, bead the center mark and the right side before filling in the rest of the strands. Continue beading the whole row.
4.2 Bead row 2 of the *pamyua*-train.

There are 55 strands in this row with a bead count of 16 beads long. Sew through the bottom of strip 1. Add 16 beads. Sew through the top of leather strip 2, tie off the strand, and burn the thread ends. Continue beading the whole row.
4.3 Bead row 3 of the *pamyua*-train.

There are 55 strands in this row with a bead count of 11 beads long. Sew through the bottom of strip 2. Add 11 beads. Sew through the top of leather strip 3, tie off the strand, and burn the thread ends. Continue beading the whole row.
4.4 Bead row 4 of the *pamyua*-train.

There are 55 strands in this row with a bead count of 11 beads long. Sew through the bottom of strip 3. Add 16 beads. Sew through the top of leather strip 4, tie off the strand, and burn the thread ends. Continue beading the whole row.
4.5 Bead row 5 of the pamyua–train.

There are 43 strands in this row with a bead count of 3 beads long. Sew through the bottom of strip 4. Add 3 accent beads. Sew through the top of leather strip 5 (with 43 marks), tie off the strand, and burn the thread ends. Continue beading the whole row.
4.6  Bead row 6, the fringe at the end of the *pamyua*-train.

There are 55 strands in this row with a bead count of 24 beads long. Sew through the bottom of strip 5. Add 21 seed beads, 2 accent beads, and 1 more seed bead. Skipping over the last seed bead go back through the strand of beads and tie off like the fringe strands. Bead all 55 strands to finish the nacaq.
Artists & Nacat
Patricia Abston-Cox, Kodiak

Trish is the daughter of Gary Abston of Kodiak and Virginia Johnson Abston of Larsen Bay. Her mother was a founding member of the Kodiak Alutiiq Dancers and Trish served as the group’s coordinator for three years. During this time, Trish learned to make cultural objects—the nacat, hats, masks, and drums used in dance performances. She began beading in 2003, with support from Dee Dee Chya, Margaret Roberts, and her mother. She continues to make nacat for enjoyment and to help community members create their own regalia.

Emerald Isle

Beaded Headdress by Patricia Abston-Cox, 2018
Purchased with support from Rasmuson Foundation, AM900

Emerald Isle uses Alutiiq colors—green, black, and white. The principal color is green, a hue associated with the supernatural world, the sky, and the sea. This color evokes both the brilliant green of the Kodiak landscape and the deep physical and spiritual ties that Alutiiq people feel to their ancestral lands.
Melinda Abyo, Anchorage

Melinda is an artist of Sugpiaq and Tlingit descent. She was raised in the Alaska Peninsula village of Perryville. In 2006, Melinda joined Imamsuat, a Sugpiaq dance group. Here, she learned to make beaded headdresses from Lalla Williams. Since then, Abyo has been an avid beader, creating bracelets, necklaces, and headdresses. She works precisely to plan the placement of every bead.

Abyo Nacaq

Beaded headdress by Melinda Abyo, 2010
Purchased with support from Rasmuson Foundation, AM703

Abyo enjoys replicating ancestral nacaq. This blue and white nacaq was inspired by an historic watercolor. This 1818 painting is one of the earliest images of an Alutiiq woman wearing a beaded nacaq.

Melinda Abyo, Anchorage
At three feet long, this unique nacaq is a large, sumptuous piece. It includes dentalium shells, a rare and highly valued trade good, and gold beads. The large blocks of colored beads on the train are inspired by an ancestral nacaq, but the cap is Abyo’s original design.

Woman’s Headdress

Beaded headdress by Melinda Abyo, 2019
Purchased with support from Rasmuson Foundation, AM901
Leona Haakanson-Crow, Kodiak

Leona is the second of Sven and Mary Haakanson’s six children. She was raised in the village of Old Harbor and has been beading for over twenty years. Leona makes nacat spirit pouches, jewelry, and decorative beaded baskets.

In 2002, Leona replicated this ancestral nacaq for the Alutiiq Museum. This original was collected in 1883 from the Alaska Peninsula community of Ugashik by the Smithsonian Institution. A grant from the Alaska State Council for the Arts supported Leona’s work and she traveled to Washington to share her beading at the Smithsonian.

Ugashik Headdress

Beadded headdress by Leona Haakanson-Crow, 2002
Created with support from the Alaska State Council on the Arts, AM460
Kayla McDermott, Kodiak

Kayla sewed her first seal skin at the age of seven, during an Alutiq culture class at Old Harbor School taught by Gwen Sargent and Angie Christiansen. She has been sewing and beading since, inspired by Elders, beautiful materials, and the tremendous support she receives from her community. What started as a hobby has become a passion and a business. Kayla is known for her precise, even stitching and for using her nacat to tell stories.
Missing and Murdered Indigenous Women

Beaded headress by Kayla McDermott, 2022
Purchased with support from Rasmuson Foundation, AM1025

Indigenous women make up about 1% of the United States population, but they are murdered at ten times the rate of other citizens. Kayla’s nacaq tells this story. A red handprint on the top of the garment is the symbol of the Missing and Murdered Indigenous Women movement and represents the voices silenced. The cap features patterns of women holding hands and a lifeline. The beads in the train representing the thousands of missing and murdered Indigenous women in the United States.
June was born in the Alutiq village of Old Harbor to Jacob Simeonoff Sr. and Sophia Johnson. She grew up watching her parents sew and knit and admiring the beautiful handwork of village ladies. These experiences inspired her to create. June is well known for her beading, skin sewing, weaving, and painting, informed by her deep knowledge of ancestral traditions. She has instructed artists of all ages across Alaska and her work has been widely shown and collected.

"Thinking about those who inspired me, while I was yet a child, brought back many fond memories and in return I put my heart into sewing and picking up beads for this piece . . . Each bead was a memory, memories of a rich and colorful heritage, the beautiful island with waves spraying salty smelling water on rocks mixed with sandy carpets, whispering alders and smoking salmon."
Marie Skonberg, Ouzinkie (1949–2009)

Marie Skonberg was the daughter of Fred and Esther Chernikoff. A lifelong Ouzinkie resident, Marie was an active community leader. In addition to serving on the Ouzinkie Tribal Council, working as a health aide, and coordinating the Ouzinkie Alutiq Dancers, she was an avid cook, gardener, and artist. She used her talents to educate others about Alutiq culture, dress community members for events, and promote pride in her people. A legion of women in Ouzinkie received an introduction to beading by working with Marie.
The Alutiiq Museum purchased these two nacat from Marie’s husband James, following her death. The nacat were made and worn in Ouzinkie and were inspired by traditional Alutiiq colors and ancestral designs found in Kodiak petroglyphs.

Skonberg Nacat

Beaded Headdresses by Marie Skonberg, before 2010
Purchased with support from Rasmuson Foundation, AM677
It takes thousands of tiny glass beads and hours of handwork to construct an Alutiiq woman’s nacaq—headdress. Now, you can learn to make this graceful garment. Open this booklet for step-by-step instructions on nacaq manufacture. Find a supply list, measurements for leather pieces, bead counts, and knot tying directions. It’s all provided by cultural expert Kayla McDermott and accompanied by online video tutorials at www.alutiiqmuseum.org.