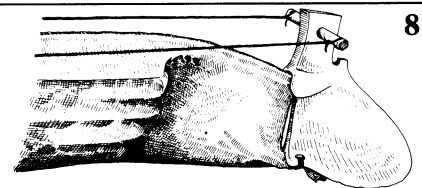
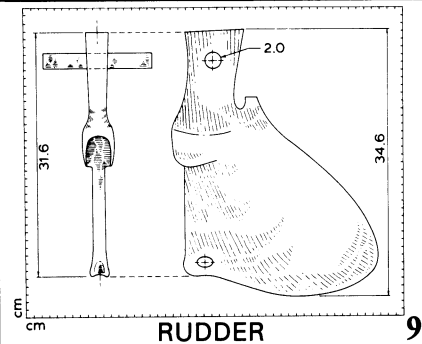


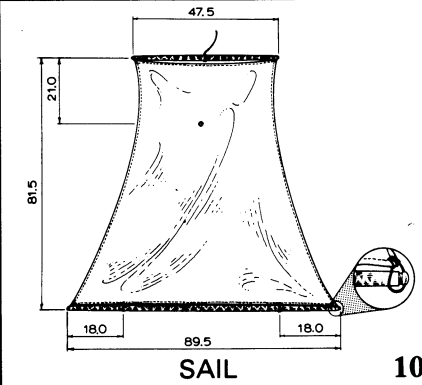
LASHINGS



KAYAK RUDDER ATTACHMENT



RUDDER



SAIL

possible as it decreases the possibility of leaks.

Next, mark, trim, and sew around the lower and then the upper bow pieces. Clamps or a temporary lashing may be used in the cockpit area of the kayak to hold the canvas together until it is trimmed and sewn. It's usually best to sew towards the middle from both ends. Keep the seam over the deck stringer, with no seam overlap. Fold the edges under and bring them together tightly. A dart will be necessary in the afterdeck running at a 45-degree angle from each outboard corner forward to the deck stringer. Be certain that the corners of the stern framework have been rounded enough to keep them from tearing through the canvas.

When sewing the forward deck seam, stop when you are just over the mast step. At this point, make a small tube of scrap canvas about 1 inch in diameter and 4 inches long. Sew the tube into the seam so that it is just to port of the deck stringer. This tube forms a sleeve for the mast to pass through to the step. Its design prevents water from going through the deck.

Continue sewing up to the top of the cockpit coaming, then put a tight lashing around the coaming to hold the canvas in place until you've completed the seams. Bring the hemmed canvas over the top of the coaming, but leave it just short of the holes that were drilled to lash on the half-round lip. Sew the canvas to those lashings to prevent stitching on the outside of the coaming, or through the holes themselves.

The cover is complete. A clear silicone sealer may be rubbed into any seams below the waterline.

Paint the outside of the bidarka with two coats of clear dope, the same as is used for covering fabric aircraft wings. It is available from International Paints as Aceto Butyrate Clear Dope/ZE-350003. Any good alkyd enamel paint may be used on top of the dope. The Aleut did not paint designs on the outside of their bidarkas, but they did often incorporate alternating pieces of ¼-inch-long red and black wool into the bow and foredeck seams as shown in photograph M.

Rudders and sails on Aleut bidarkas were not used before the advent of the Russian otter hunters, but afterwards they became quite common. Figure 9 illustrates the rudder that goes with this kayak. The 1-centimeter scale around the edges may be used to redraw the rudder full size. The rudder is attached to the kayak as shown in figure 8, with the two lines tied in an endless loop around the cockpit. The rudder was mostly used as a trim tab to counteract wind and current. Steering was usually done with the paddle.

The kayak in the Lowie Museum did not have a mast, but I estimate that the spar was about 2.0 centimeters in diameter at the base and about 120 centimeters long. A hole was drilled through it about 5 centimeters from the head of the spar to take a halyard. A sail was included with the Lowie bidarka and is shown in figure 10. It is made from light canvas and hemmed on all sides. The 0.7-centimeter eye sewn into the middle of the sail serves some unknown function. Perhaps it was part of a reefing system. The yard tapers from 2.2 centimeters in the middle to 1.4 centimeters at the ends. Another yard (perhaps this should be called a boom?) extends the foot of the sail. Both are

painted black. Attach a sheet to each arm of the lower yard, and the sail is ready to go — but only on a reach or a run.

The double-bladed paddle shown on the lines drawing is all that's left to complete your Aleut bidarka outfit. You can make it from a two-by-four with some additional wood edge-glued on to make up the blade width, or you can cut the paddle from a knot-free two-by-six — if you can find one. Note that the blades are ridged on one side only, and are convex on the other.

A sturdy mat or seat made of wooden slats laced together should be used in the cockpit area. Transverse deck lines may be put on to hold an extra paddle or some light gear. Put one just forward of the cockpit, one near the bow, one just abaft the cockpit, and still one more near the stern. Drill holes through the sides of the gunwales about ¾ inch down from the deck where you want the deck lines and knot the line on the inside. Be careful that you don't drill too close to the ends for the bow and stern lines or you won't be able to get to them to tie the knots.

And that's it. Please send me a photograph of your bidarka care of *SBJ* once you've finished it and let me know how you like traditional arctic construction. Good paddling! □