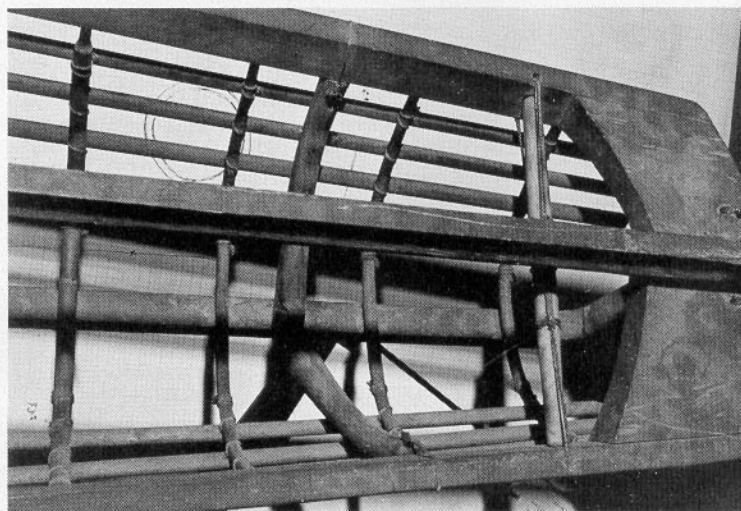


These details of the Lowie Museum's *bidarka* show the outstanding craftsmanship of Aleut woodworkers. The Aleut design of the pieces keeps the weight low, but the strength high. It is an elegant and remarkably beautiful work of engineering. Top left: this side view of the bow (upside down) illustrates the joint between the upper bow piece and the keelson (see figure 1). Top right: here's the bow again, looking forward. Note the lashing of the stringers to the forward rib. Left: this side view of the stern structure shows the carving used to eliminate weight. Note how the lashings hold the stern blocks together and in place. Below left: the stern, seen from the top. Below right: deck stringer-deck beam-coaming joint and lashing.



every 5 centimeters, just below it. Make sure none go through a saw kerf. Bring out the needle and waxed cord again, and sew or lash the lip in place. You can cut grooves across the top to countersink the lashings, but since this area will later be covered by canvas, it's not really necessary.

Of the 78 individual pieces that make up the original kayak, only 5 remain to be fabricated. A round,

straight deck beam 1.0 centimeter in diameter and 20 centimeters long is located just behind the bow blocks, as in figure 1. A similar stern piece, shown in figure 5, is 1.5 centimeters in diameter and 26.5 centimeters long. Two stanchions, 6.2 centimeters long and 2.0 centimeters in diameter, fit between the gunwales and the coaming. These are shown in figure 4.

Finally, make the mast step to the

dimensions shown in figure 10. In the final assembly, it will fit over and lash to ribs 11 and 12. Hardwood is best for this part.

Except for the rudder, mast, and sail which will be described later, all the parts of the kayak framework have been prefabricated. Sit back for a bit and admire your work so far. In *SBJ* #30, we'll put the puzzle together and turn it into a boat. □