

surements, which accounted for great intra-community uniformity, as most of the men were of the same general build.)

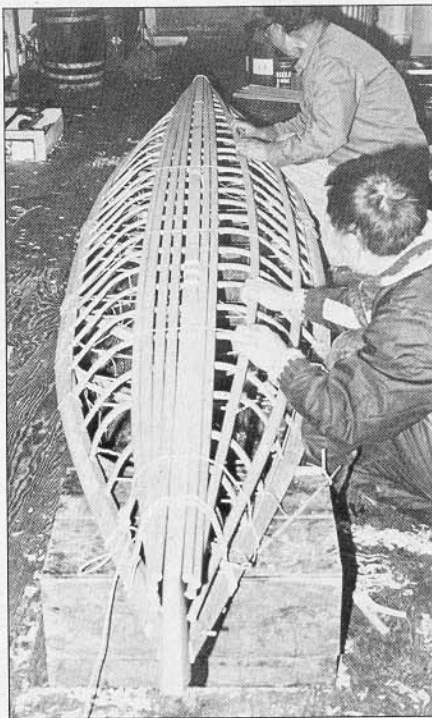
After the final shaping of the deckbeams, Dick carved out the upper bow block and the stern handhold, then attached them to their associated deck stringers with notched scarf joints. The deck stringers were made from pieces split out of a large driftwood log. The splitting was done using small hardwood wedges carved from a broken hickory axe handle. The wedges were inserted first in the end grain of the log along the plane of the growth rings. As the split started down the log, more wedges were inserted and pounded home until a whole section was split off. The outer ring of the last new growth on the log was initially split off and discarded because of insufficient strength.

The gunwales, major strength members in all kayaks, were fashioned from one driftwood log that Dick first squared up with a hatchet and adze and then halved by sawing with a portable circular saw. The saw-cut sides became the outer sides of the gunwales in the finished product.

The general method of work was to first split out pieces from the driftwood log or stump, then rough-shape with a hatchet, and final-shape with the adze and curved carving knife. In this fashion Dick prefabricated all 57 pieces of the kayak. The rough work was done outside, while the carving knife work was done indoors. Dick did not use a workbench. Indoors he sat on a small wooden box. All scraps and shavings were recycled in his woodstove.

In a little over three weeks the parts were complete and ready for pre-assembly trimming, painting, and bending. The gunwales were joined at the ends and spread apart in the middle, so they could be checked for bending. One gunwale, judged to be less springy than the other, was planed down a bit on the outboard side, rechecked, and pronounced finished. The ribs were bent cold by clamping the teeth down on them and bending by hand, tying the ends together with nylon cord that was later used as the rib/stringer tie.

At this point Dick enlisted the aid of several neighbors. Aloysius Hale formed the outer coaming lip into a circle by spot-heating it with hot water, bending it with his hands, and tightening up a line connecting the ends. I painted the gunwales, ribs, and stringers, while another neighbor cut mortises into the gunwales for the deckbeams and ribs. Dick supervised closely.



*The stringers are pulled down to final placement. The ties around the hull are temporary.*

The paint that I used came from a powdered red ochre-colored rock traded from Nelson Island. The powder was mixed with a little water and rubbed on the wood with a cloth. I could discover no functional reason for the use of this paint. Dick told me: "We've always done it this way."

When all was ready, the deckbeams were fitted into the gunwales, the gunwale ends bolted together, and the bow and stern pieces added along with the deck stringers. While this was all very straightforward, the next step in the assembly was rather critical.

Bering Sea kayaks have a slight reverse sheer, which was achieved in the following manner. The gunwale/deck-beam/deck stringer assembly was placed upside down, supported by two boxes. The keelson pieces, attached to their respective lower bow and stern blocks, were next fitted into place. As they were prefabricated extra-long, they overlapped amidships. By being trimmed slightly short and joined with a notched scarf joint, the ends of the kayak were put in tension. This caused the gunwales to bend upwards (remember the frame is upside down), creating reverse sheer.

The keelson was then blocked and temporarily tied to prevent any rocker from forming. The first rib was fitted in amidships and the others worked in toward each end. Next, the stringers were fitted to length and held in place

with more temporary ties. A length of twine was used for the rib/stringer tie that runs athwartships from gunwale to gunwale. Following other trimming and special lashings, the framework was turned right side up. The cockpit coaming was lashed temporarily in place while the gunwale-to-coaming stanchions were fitted. With the addition of some touch-up paint and trimming, the kayak was finished, exactly one month from when it was started.

Since I wanted the frame left uncovered to display its structure, my work of recording the construction was also complete. On the following field trips to Hooper Bay I concentrated research on the current use of kayaks. In many respects I was 40 years too late.

Locally made flat-bottomed skiffs powered by one and sometimes two outboard motors became common after



*Above—Aloysius Hale puts hot water on the outer cockpit coaming rim to bend it.*

*Below—The deckbeams fit into mortises cut into the gunwales.*

