Building the One-Hole Aleut Bidarka

Part I

The Aleut Bidarka is so perfect in its way that a mathematician himself could hardly add anything to its sea going qualities", wrote the ethnographer and Russian Orthodox priest I.E.P. Veniaminov in 1840. But for all its perfection, the Aleut kayak has gone the way of the Dodo and Great Auk. Modern kayaks, when modeled after aboriginal designs at all, are slightly related to those used by the Greenland Eskimos — an accident of history caused by Greenland's greater proximity to the early sport kayaking centers of England and Europe. The Aleut kayak deserves a better fate.

History

Living on islands surrounded by treacherous water that's ice-free most of the year, the Aleut people needed some form of water transport. An absence of trees on the Aleutian Islands forced the inhabitants to rely on scarce driftwood for a framework that was covered with the easily-obtained skins of sea mammals.

Two types of boats emerged: a decked-over kayak for hunting and an open boat capable of carrying goods and people. At least one of the islands, the easternmost of the Fox group of the Aleutian chain, was occupied as long ago as 3000 B.C., according to archaeological evidence. One or both of these skin boats were probably developed in some form by then.

In the 1700s, Russian traders came to the Aleutian Islands to pursue the sea otter for its fur. Traded in China, these pelts built many a fortune for the Russian middlemen. The Aleut, however, were cruelly subjugated, their numbers decimated, and their culture unalterably changed.

Before the Russians, one-hole bidarkas [kayaks] were found in abundance, along with some two-hole boats. The Russians apparently introduced the concept of the three-hole bidarka, the middle hole reserved for their traders, missionaries, and explorers. They also fostered the building of two-hole bidarkas for use in the otter hunt. Led by a hunt boss in a three-hole, scores of two-hole bidarkas took station around the hapless sea otter. The stern man paddled and guided the craft while the bow man readied his throwing board. With a throwing board, the Aleuts could reputedly throw a dart with an accuracy of one inch at forty yards.

by David W. Zimmerly
photographs by the author

These two photographs show the structure of the author's reconstruction (left) and that of the Aleut Bidarka in the Lowe Museum collection. Once covered by canvas, the external shape will be the same; only the wood that comes in contact with the skin determines shape.

Veniaminov wrote a very good description of an Aleut kayak from Atka Island in 1840:

"...The baidarki of the present-day Aleuts are no longer as perfect as those of the former Aleut riders. At that time, in the hands of excellent riders, they were so speedy that birds could not outrun them. They were so narrow and sharp-keeled that they could not stand upright in the water without a rider, and so light that a seven-year-old child could easily carry them."

He went on to describe the gunwales, deck beams, ribs, and keelson. The last of these parts, he pointed out, was "always in three pieces in order that the baidarka may 'bend' over the wave."

Stability in this crank craft was achieved through masterful training balance, and the use of double-bladed paddles. In the event of a capsize, an Aleut paddler could not roll the kayak back upright, but depended instead on