A Hull Design for Every Race

By Russ and Peg Apple

ALMOST A decade ago, so the story goes, a crack crew of paddlers from the Waikiki Surf outrigger canoe racing club took their prize winning koa canoe, the *Malia*, to California.

California's first Long Beach to Catalina island race in outrigger canoes was the attraction.

After winning the race in their Hawaiian koa canoe against teams in fiberglass hulls of California design, Waikiki Surf's paddlers flew home. Their *Malia* tarried behind to await passage home by ship.

Tales of Old Hawaii

DURING THE wait on the dock, it is believed, one or more casts of the hull of the *Malia* were bootlegged on dark nights. Such casting was unauthorized.

Fiberglass hulls, each a copy of the *Malia's* hull, appeared shortly thereafter on the West Coast market. Then at least one mold of the *Malia* began turning out fiberglass copies in Hawaii. So the story goes.

Some experts think that almost all of the fiberglass outrigger hulls now in use in Hawaii for racing and practice are copies of the hull of Waikiki Surf's *Malia*.

STANDARDIZATION, however, is absent in Hawaii's indigenous races in paddled outrigger canoes.

Koa canoes, each different in hull design, with outriggers of native woods, race only against koa; fiberglass hulls race only against fiberglass. Even in the fiberglass races, this leaves room for many legal variations.

Racing rules in Hawaii impose a minimum weight of 400 pounds for each hull, wooden paddles of limited length and width, and that the paddlers in each race be within specified age groups.

Human judgment and emotions affect the hull, the rig, the coaches and the six paddlers.

IN HAWAIIAN paddling, an otherwise winning and eager crew can be slowed by the poor hull design, the poor design and rig of the outrigger, or poor coaching.

A winning crew of paddlers is usually the result of more than paddling the right stroke and pace at the right times in prime team coordination. but also involves long-term coaching, the right assessment of wind, water and competition for the race by the senior staff, and the right rig (fore and aft, level of hull floating, and list) for the hull design chosen in combination with the wind and water situation of the time. Ideally the weight and its distribution among the six paddlers, and their arm lengths, are also taken into account.

SOME KOA hull designs are fast in calm waters but swamp in waves, others can surf well or take choppy waters but are slow on mirror-like seas. Some clubs have koa hulls to match most seas; others depend on a compromise hull shape and take their chances. Such clubs then rig their booms and floats differently for each racing condition.

Today's outrigger canoe paddlers and coaches carry on techniques and know-how learned by the ancient Hawaiians who only had koa canoes to move around the islands. Ancient Hawaiian canoe makers designed the different hull shapes to match the moods and whims of Hawaiian waters. The crews who proudly paddled their chiefs to war or on state visits worked out the design of paddles, the strokes and paces to move Hawaiian hulls with efficiency.

Hawaiian canoes paddled circles around the rowed long boats, the pride of Western ships in their early visits to the Hawaiian islands.