Merlin and Other Magic

MAGIC WAS followed by a string of other one-off designs. All of which continued to advance Lee's claim as one of the most exciting and pioneering designers on the West Coast. Lee's Chutzpah won two consecutive trans-pacs in '73 and '75. From Chutzpah came Lee's first class-the Santa Cruz 27. The 27 continued to demonstrate Lee's dominance in racing and the boat was eagerly purchased by performance minded rac-

Bill Lee is interested in high performance. As such he reasoned that maximum speed can be obtained by minimizing weight and drag. All of Lee's designs are built to be extremely light. Indeed the type of boat that Lee pioneered is now commonly referred to as ultra lights. Lee also abandoned traditional hull designs in favor of hulls with a minimum of underwater distortion and a dagger like keel that is in stark contrast to the much larger and heavier keels of tradition-

Lee's motto is "fast is fun" and his boat designs emphasize speed and high levels of racing performance. Virtually all of Lee's boats rely on this combination of light displacements and efficien. hull design. His unorthodox designs have raised some criticism that the ultra light design is unseaworthy, (see Counterpoint), but the performance of the 27's and his Santa Cruz 50's (essentially a larger version of the 27) in offshore races have quelled much of the criticism leveled at the early ultra lights.

As a boat designer Lee can be compared to the English sports car designer Colin Chapman. Whereas Chapman builds his Lotus sports cars as light as possible to achieve an extraordinary power to weight ratio, Lee applies these same principles to the problems of building and sailing fast boats.

Bill Lee designs and builds his boats in a yard located above Soquel. Currently he is only producing Santa Cruz 50's. He recently sold the molds and all the rights to the 27 to a Sausalito group. With the huge success of Bill Lee designs there is always a keen interest in any new projects he may be working on.

Bill Lee is in fact working on a completely new design. The Santa Cruz 40, as it will be known as, is now taking shape on Lee's drafting table. The impetus for the 40 stems largely from market pressure for a boat that carries on the Lee tradition of speed, but that is smaller than the 50. "There is a need," explains Lee, "for a boat that costs less than the 50. The 40 will be lighter than the 50, and there will be a little more hull in the water."

Unlike the Santa Cruz 50 which was based on the 27, the new Santa Cruz 40 is an entirely fresh design. The major difference of the 40 is that the hull of the vessel will be pitched for the entire length of the hull. "The 40 will be more capable of going into the weather," says Lee. The Santa Cruz 40 is, as Lee puts it, "the latest hot setup." The plan is to have the boat built and rigged in time to race it in the Ano Nuevo races in the beginning of March.

Prior rumors of the Santa Cruz 40 have raised considerable interest, and several inquiries have been received for purchasing 40's when they go into production next spring. As Lee advances his own peculiar theories of boat design and high performance racing, Merlin remains the paradigm of the Bill Lee approach to speed. Merlin is routinely chartered out to crews for races to Hawaii, offshore races, and other events.

Lee himself is a little surprised that a seriously competitive design has not yet emerged to challenge Merlin. "No one has built a faster one," he shrugged. The success of Merlin has prompted Lee to try an unusual experiment. He is currently offering Merlin for charter, complete with skipper and crew, to those who wish to experience what sailing on Merlin is all about.

The response to Lee's offer has been huge. Surprisingly, it seems many prospective charter clients are not yachting enthusiasts at all, but are nevertheless attracted to the mystique of Merlin. The cost of sailing in Merlin is about \$25 per person per hour. Most of the requests so far received are from people who wish to go out for a few hours. But at least one Merlin admirer has chartered the boat for a whole day.

Lee intends to offer Merlin for these day charters in between racing commitments. At this time Merlin will be available for charter up until October 14 when the boat is due to race off La Paz.

If you wish to find out what Merlin is all about when under sail, call Bill Lee Yachts at 462-1637.

## Counter-point

John Humme

THE ULTRALIGHT philosophy as exemplified by designer Bill Lee is not universally admired, or even accepted, by the sailing fraternity. That his boats are successful in racing, no one denies, but there are still a lot of sailors who find them too specialized, too light, engineered too close to the edge.

His critics point out first that boats like Merlin have been most successful in races like the Transpac, which are fundamentally "downhill" events—races involving long tacks off-the-wind, reaching or running. It is certainly true that the relatively shallow forefoot, and the reduced lateral resistance which results from the trimmed-down area of the fin keel make the boat less effective going to weather (especially in a heavy sea) than more traditional designs. It is interesting that, on his new 40 foot design, he has increased the deadrise in an effort to increase the weatherly capabilities of the hull.

Performance off the wind has been criticized too. The reduction of the wetted surface, the relatively reduced aspect of the fin keel, and the very speeds the boats can reach planing off a large following sea make them highly vulnerable to broaching, unless the helmsman is very good at his trade. Lee himself is a good sailor, and Merlin has been raced for the most part by carefully chosen and highly skilled crews. The same cannot be said of all the 27's, or the 50's, that he has sold, and knockdowns are not uncommon when the Sunday-sailors race them head-to-head.

Finally, not all designers are as sanguine about the ultimate strength of the balsacore sandwich which lies as the heart of the ultra-light approach. The test-data is mixed, but there are those who argue that conservative engineering is nowhere more appropriate than several hundred miles out to sea.

John Hummel, the Associate Editor of the Santa Cruz Weekly, has been sailing for 35 years and was trained at the Westlawn School of Yacht Design.

