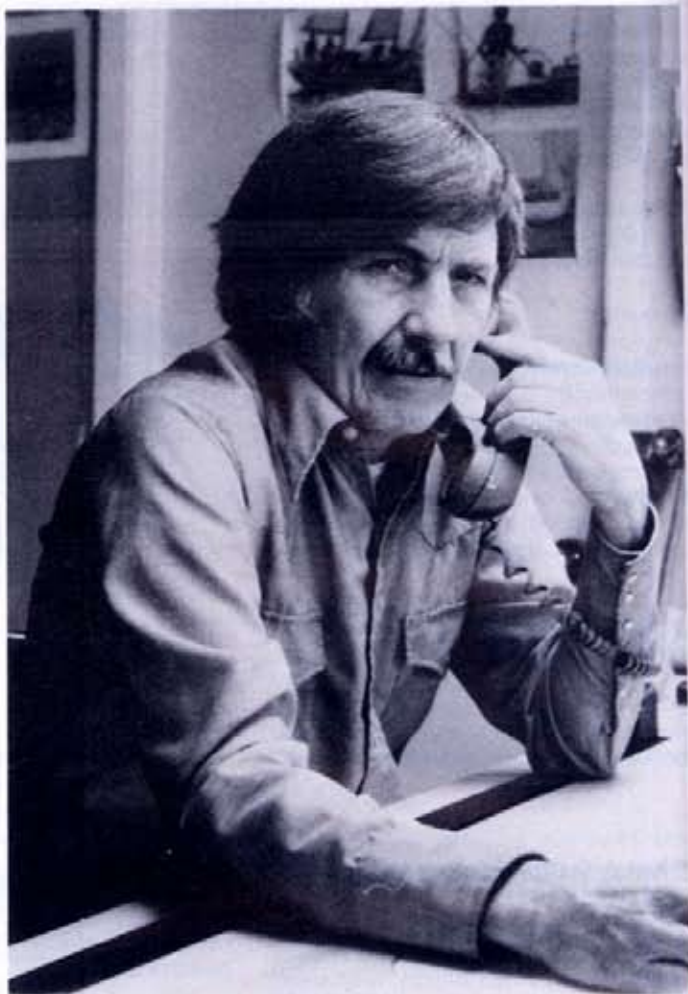


If it moves, it fascinates him

John Cherubini Is a Designer In Motion

A profile by Deborah T. Luhrs



The animated discussion after dinner focused on European race cars, and the man at the head of the table discussed the fine points in the jargon of car designers and drivers.

Hold on, John Cherubini, I thought you were a naval architect, but from your comments in this conversation I might have presumed you design race cars instead.

Having already heard of John's aeronautical accomplishments, I knew something of his broad technical background. He can captivate an audience with anecdotes of his World War II-pilot experiences. During the 1960s, he was a designer with Boeing Aircraft; and he still esteems aircraft designs as "ultimate structures of motion." But, the race car discourse crystalized his overall outlook.

"It must be just that element of 'motion' in general," Cherubini admitted. "The exhilarating sensation of speed and fine performance are the stimulating forces—whether they can be associated with boats, planes

or cars. I'm enchanted by dynamic structures that function to their maximum in motion."

Through the years, he has designed a wide range of moving objects, but interwoven through all his efforts is a spirited inclination toward sailing craft in particular. During the 1950s, his father Leon and the five Cherubini sons operated a small firm in Burlington, New Jersey, building outboard motorboats that John designed. Then John and his wife Louise would dash off on weekends to race class boats.

"And, our canvas hasn't been limited to the water," John adds. "When our boys were younger, (they are John, 22, Steve, 19, and Adam, 15) we experimented with wheeled land-sailers and had a ball flying across the huge shopping center parking lot behind our house. We learned a lot about how sails act in high-speed regimes as we cruised across the asphalt."

One of John's earliest ventures into motion was in 1937 when he and his older brother Frit acquired plans from

Rudder magazine and built an 18-foot, double-planked sailboat in their cellar. They were dubbed "the builders" by the neighborhood gang, and the Cherubini boys had established their boatbuilding credentials along the banks of the Delaware River in Bristol, Pennsylvania.

John remembers his mother's vision of the river as "a highway to the world" even though she was not a sailor. And, he still maintains that "a nice day sailing is being out on the river in a Sunfish—skimming along with the splash of the bow wave, visually enjoying the ever-changing river bank and feeling close to the ebb and flow of the tide."

"I just like to go for well-tuned daysails," John said. "I don't care for overnight cruising because it is so entangled with gear and provisioning. That's the province of the boat owner, which I am not. There is never enough time. On the water I am mainly interested in the movement of the vessel, and how it relates and reacts to its

environment."

John's respect for the sea is given extra dimension by his own definition of what is seaworthy. "Not only should a yacht structurally withstand whatever rigors and violence issue forth from the sea, it also should be graceful enough to be *worthy of the sea.*"

John sees himself as a "drawing-board sailor" who thrills most with the mental exercises and verbal debates which bring life to concepts and design features.

"When one of my boats hits the water I'm anticipating how she will sit on her waterline and her initial sailing abilities; then, it's all over for me and it begins for the owner."

As evidence of his tendency to move quickly to the next project, John has accumulated an impressive list of credits in the past 10 years.

Several years ago, he designed the Raider 33 for his brother Joe, whose shop is in Riverside, New Jersey. The Cherubini family spirit extends to the next generation; Joe's two sons are also accomplished boatbuilders. As the Raider 33 develops, Joe hopes to direct the styling to the racing market.

As in-house designer for Hunter Marine in Alachua, Florida, John's prolific pencil has turned out six production models which range from a 25-foot weekender (co-designed with Bob Seidelmann) to a 37-foot family cruiser.

Hunter's general manager, Warren Luhrs, works closely with John during the design process.

"John has one of the greatest attributes a designer can have," Luhrs says. "He has the ability to transpose

onto paper what is in his imagination—and even more artful, what is in mine."

This may not sound so difficult until one considers the array of curves embodied in designing a yacht. Then, all those beautiful lines on paper must be tested for balance, righting-moment, stability curves, and so on. The possibilities are myriad and John relishes the paper and pencil experimentation of those options.

Even during our interview, Cherubini constantly eyed the top drawing of a pile of plans. Grabbing an eraser he hurriedly rubbed out a section. His pencil flew into action, and then he glanced up with eyes flashing like the famous "bright idea" lightbulb snapping on. He practically shouts, "Hey, you know, we might try that bulkhead here instead!"

John's openness to change and other viewpoints is another admirable trait. "He is always receptive to another designer's ideas," Luhrs commends, "not just stuck on his own theories because he has had success with them."

A quote from L. Francis Herreshoff, who is one of Cherubini's heroes, comes to mind. The late designer commented on Charles Nicholson, the renowned English designer of America's Cup challengers: "His opinions were unbiased and he had no petty jealousies, which has been unusual among yacht designers."

Perhaps some of this receptiveness springs from John's philosophy of combining equal proportions of technical and artistic aspects in a design; and, better yet, he is happier when the artistic side is weightier.

One of his favorite quotes is Her-



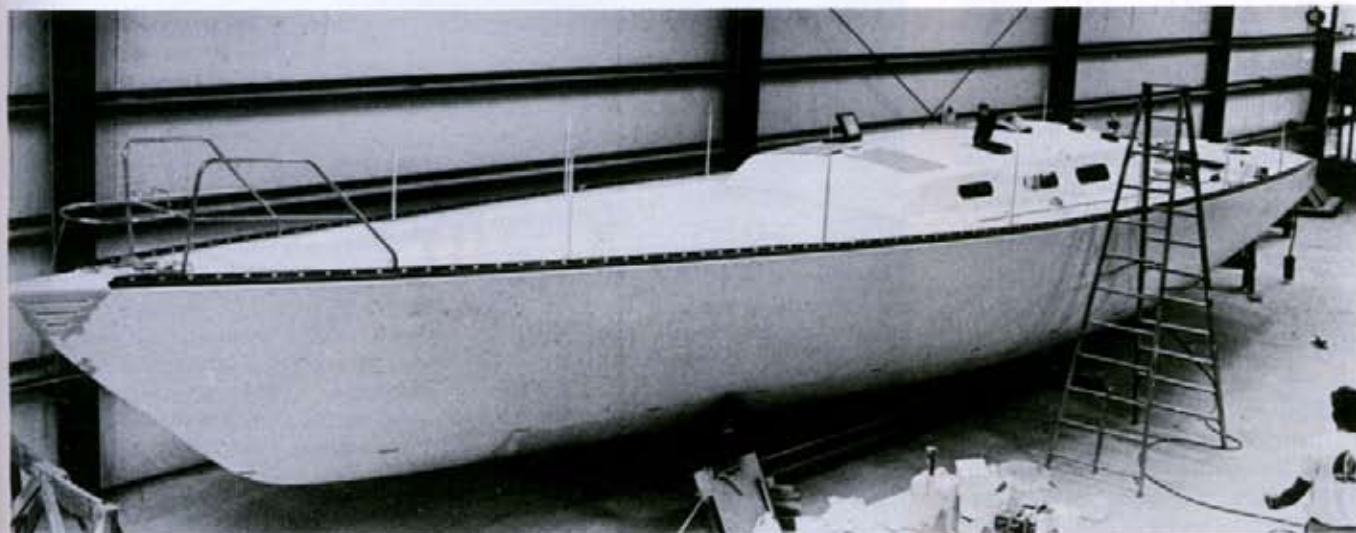
John with brother Frit and son Steve.

reshoff's "Don't let your slide rule interfere with your vision." An affinity with the great designer surfaces often in John's work and his thinking.

With classic spirit in mind, his personal favorite design is the Cherubini 44 which is built by brother Frit. The Cherubini Boat Company in Burlington, New Jersey, turns out four custom-interior 44s a year, working closely with individual customers in a "good-old-days" sense. Again, assorted family members, including John's son Steve, pitch in their respective talents in the shop's operation.

"I'd had that boat's concept in mind since the late 40s," John said, "and did dozens of drawings through the years. I'd draw on anything that lay flat and didn't move—plasterboard, cardboard boxes, paper towels—I even scribed on formica at times. However, the constant reality of economics always reared its ugly head and there was never the time or opportunity to really consider building her."

In 1971, John ended his design



The 54-foot prototype for the 1980 OSTAR takes shape at Hunter Marine.



A Cherubini 44 under sail on the Delaware River

meanderings and finished the 44's lines. "It had been like having a mirage in mind all that time, and finally the appropriate dream took shape on paper."

The sleek, clipper-bowed yacht was inspired by Herreshoff-thinking in general, and his 72-foot *Ticonderoga* in particular. However, John is vexed when people reduce the effort by referring to it simply as "that Herreshoff boat."

John's attraction to the more classic lines lies in their endurance. "You don't have to be artistic to appreciate something that does a good job and fits a purpose," he said. "No matter what styles come and go, or what we like during our lifetime, the true, beautiful designs endure—in whatever field."

John's no-nonsense attitude concerning some unadulterated elements again indicates his rapport with the Herreshoff spirit. In notes on the 44, Cherubini writes, "I don't give a damn about creating an illusion of space with walls that are color-keyed to make a jackass out of my ruler. To me, 6 feet is 6 feet, no matter what color it is. And besides, varnished wood to us 'old-timers' holds fond memories of boats of our youth. The aroma is incomparable; the scraping and sanding sounds it creates while being worked are music in my ears, anyhow."

John once took exception to an article whose author criticized the use of trailboards as slightly superficial accouterments.

"Yes, I know the only quality that lasts forever is performance," he declared, "but, things can perform in an artistic sense also."

And, performance is the keyboard of one of John's latest enterprises. He and Warren Luhrs have grown excited by ultra-light displacement boats

(ULDBs) and decided to brainstorm the concept for themselves. The resulting 54-foot design is a narrow, dart-like creation built by Hunter Marine. Warren Luhrs plans to sail her in the 1980 Royal Western/*Observer* Single-handed Transatlantic Race (OSTAR), and later models will be sold as family-cruisers.

John does not believe in the limitations the IOR and was stimulated by the minimal requirements set for OSTAR.

"After years of restrictions, rules and economic considerations," he said, "now there were none. It was exciting but also gave a feeling of despair having no guidelines to go by. All I had to do was make a boat go fast—or faster than something else. It took a lot of soul-searching to even recall the basics of speed—so hampered are we by surrounding influences."

"By far, the most gratifying aspect of the project is the excitement it lends to the imagination. The variants drawn from the basic hull shape could be used as a test bed for keel shapes, sail plans, mast and rigging structures. Even if it proves to do half what we intend, it will influence our future designs of production boats."

Warren Luhrs added that the development of ULDBs involves using less and lighter-weight materials to produce stronger, safer, better-performing boats, a move which should be a valid trend in the entire industry. The concept should not be limited to racing designs, but definitely lends itself to cruising boats as well.

When asked about the future of yacht designing and sailing, John offers two theories. One is specialization. "No more combinations where compromise is always the answer," he replies. "There's a land vehicle for every purpose from tractors to sports cars. Why not a boat?"

One of his main gripes is the way designs are often bolstered up with "bigger-than-the-competition's" numbers (berths, hull thickness, ports) without reflecting realistic performance comparisons and values. In this respect, he hopes the trend toward specialization will promote building into a boat just what it needs to perform well within its category and nothing more.

"I think you can bring the thrill of ultimate performance into any category, whether it be sleeping 10 people on a 40-foot boat or reaching down the Chesapeake at 18 knots."

John's second theory is in the area of hull-skin friction. "It's not just the hull's shape that determines its performance. I'm sure other designers feel as I do; we get weary looking at each others' intricacies in shapes, hoping for a revelation."

He foresees advancements on the problem of skin friction and points out that government studies have revealed astonishing facts about how dolphins move through the water in a relatively friction-free manner.

"Some submarines are already equipped with friction-reducing devices, but we've just begun to explore this possible area of improvement."

It would not surprise me to hear next week that John had moved on to a new project—submarine designing. The appeal of conversation with him comes from his wide range of experiences and interests. The difficult part of presenting John Cherubini, N.A., is culling out the colorful "other worlds" of this man, in order to stay on the subject.

There is a section of my notes recounting John's enthusiastic description of the wild scene that results when the five brothers, all of whom play musical instruments, get together with their sons for a Cherubini "jam session." How to fit that into the theme of yacht design?

A reference to space travel in a conversation brought a starry gaze to John's eyes which was followed by the wistful comment, "I'd like to go into space so badly that I wouldn't even care if I didn't come back."

Someday I would like to do another story of John Cherubini, the flyer. Or maybe the musician or the artist, or the philosopher. Take your pick.

