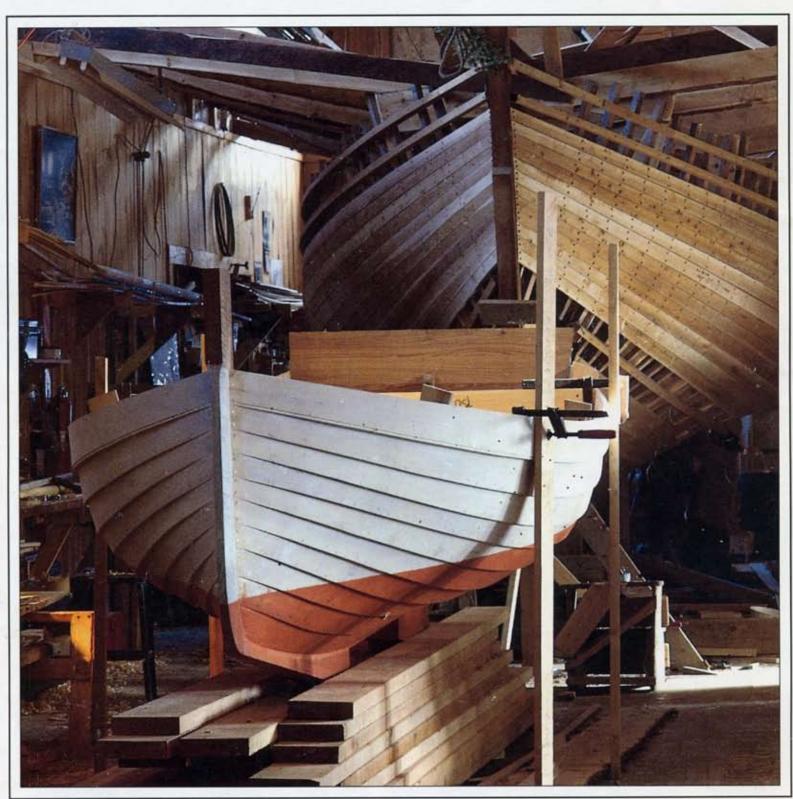
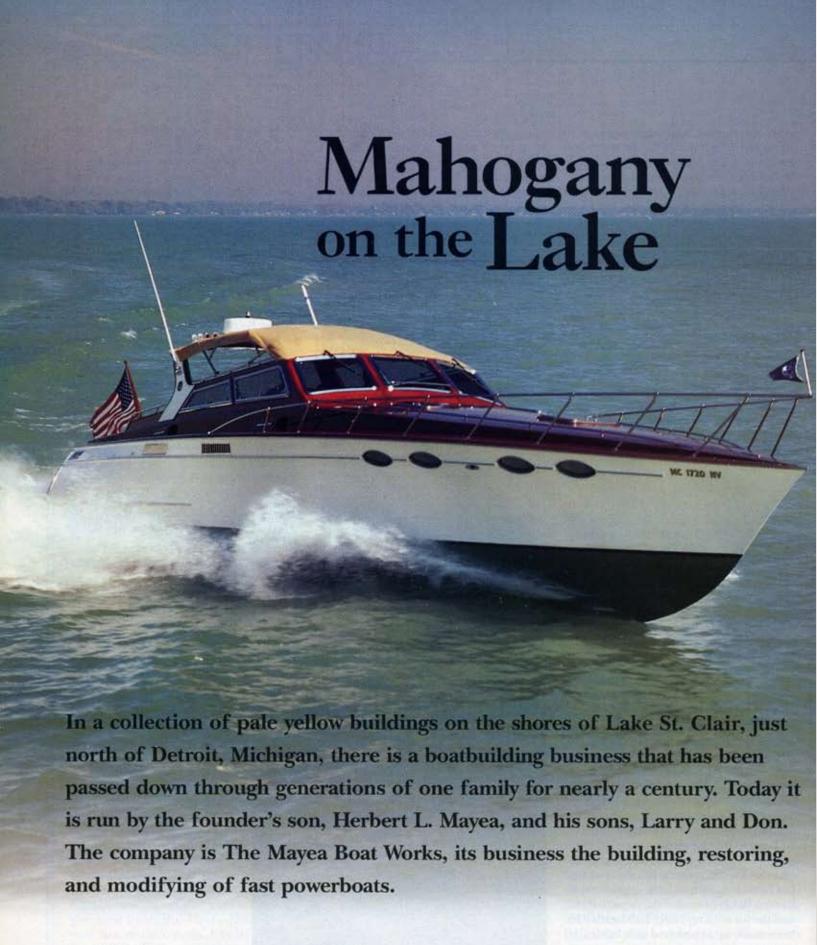
WoodenBoat

THE MAGAZINE FOR WOODEN BOAT OWNERS, BUILDERS, AND DESIGNERS



Boat Building Methods Dragon Boats

An Alaskan Homestead Boat Shop A Bevel Jig for the Bandsaw MAY/JUNE 1995 NUMBER 124 \$4.95 \$5.95 in Canada £3.50 in U.K.



by Bob Pearson Photos by Ken Osburn

he area around Detroit is famous for its powered craft. Not far from The Mayea Boat Works are the towns of Mt. Clemens, the former home of John L. Hacker's Hacker-Craft Works, and Algonac where Gar Wood, and, of course,

decades these names have been and still are synonymous with quality, high-speed powerboating, but in recent times one very significant disparity has emerged: As the others have turned their knowledge to mass production and national marketing Chris-Craft made their mark. For and distribution, The Mayea Boat

Facing—SEA FOX RUN, a newly-built 44' Mays-Craft. During this photo session on Lake St. Clair's Anchor Bay, the boat was proven to be fast and agile.

Works has opted to stay small and build custom boats; fear of compromise has led to very strict policies on how Mays-Crafts are designed, built,

The company was born in 1908, when Louis T. Mayea, a skilled ship's carpenter, set himself up in a shed on the Detroit River and called himself "The Mayea Boat and Aeroplane Works." Primarily concerned with the production of gasoline-engined launches and runabouts, Mayea was also commissioned to build plank-onframe mahogany floats for some early Wright Brothers seaplanes—hence the word aeroplane in his company

Business went from strength to strength, and before long the single shed was outgrown. But property on the booming Detroit riverfront was expensive, and so in 1914 Louis moved his operation by barge (there were no roads out to Detroit's lakeside suburbs) to a resort community north of Detroit. Called Fair Haven, Mayea's new hometown stood on the remote, wooded, and much less expensive shores of Lake St. Clair's Anchor Bay.

The Works developed a reputation for building high-quality, mahogany powerboats, and soon more and more aircraft designers and builders came to The Mayea Works encouraged by work seen on the Wrights' seaplanes. By the time America entered World War I, Mayea found himself building U.S. Navy seaplanes in one shop and mahogany runabouts in another. There were days when a runabout emerged through one set of doors for its first sea trial, while bigger doors in the next shed opened for the launching of a seaplane.

During this period, The Works took advantage of local native timbers. Oak was used for framing, and hard, dense, native black ash was used to carve out propellers for the seaplanes. But, like the rest of lower Michigan, the Fair Haven area was soon logged into almost treeless farmland.

Through the winter months when Anchor Bay was covered in ice, Mayea built a few large iceboats for friends and family. Accommodations were



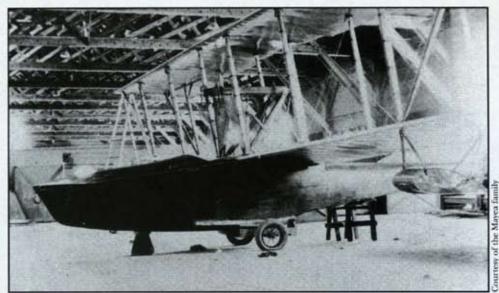
Looking forward through the saloon area of SEA FOX RUN. All the cabinetwork is finished in honey mahogany with matte varnish. The galley equipment includes a built-in microwave oven, electric range/oven, 12/110-volt refrigerator, Corian countertop, and a built-in television facing the dining settee.



The helm station on SEA FOX RUN includes built-in radar and GPS displays. The steering wheel is fabricated out of stainless steel in the Mayea tradition. A control station for fishing is located aft.



One of the 680-hp V-12 Italian-built B.P.M. engines which power SEA FOX RUN.



One of the seaplanes built for the U.S. Navy. Shown here partially completed at The Mayea Boat Works in 1918, it was built with a boat-like plank-on-frame mahogany hull.



GM-3, the experimental patrol boat built for the Navy in 1942. Mayea built six prototypes of diesel-powered patrol craft during World War II.

rudimentary: Mounted at the intersection of a 30' fore-and-aft spar and a shorter transverse spar was a "basket" which could hold the pilot and up to 13 passengers. The iceboat was controlled by trimming a huge mainsail and maneuvering a front runner with lines and blocks. Runners made of oak, 6' long and rimmed with iron to prevent splintering, were sited in a fixed position at either end of the transverse spar. The boats traveled at speeds in excess of 60 mph and were capable of blasting through househigh windrows of ice. Later, the firm built a few motorized sleds using airplane engines and propellers for propulsion.

As World War I ended, so aviation manufacture progressed to metal framing and fuselages, and The Mayea Works was left to concentrate on boats. It was to be an interesting time.

n January 1919, boatbuilding received a big boost as the Volstead Act became federal law and the sale of alcoholic beverages was banned throughout the United States. The nation's collective thirst did not coincide with this legislative process however, and rum-running became a very popular and, of course, profitable sport. Geography, together with a booming economy, and thriving boatbuilding works made Detroit a bootlegging center. Canada was only half a mile away across the Detroit River, and here the consumption and distillation of alcoholic beverages were legal. Before long, Fair Haven and many other border towns had become popular for their blind pigs (speakeasies) and as trans-shipping centers for liquor and beer bound across the States.

accelerated by its proximity to summer resorts, and the bountiful fishing and waterfowl grounds of the St. Clair flats and marshes. Here, boats were basic and necessary transportation.

Such an environment could not help but spawn the pleasure and performance powerboat industries. Chris Smith won fame for his Chris-Crafts, which he raced on the St. Clair River, Lake St. Clair, and the Detroit River. Gar Wood developed and raced his successful MISS AMERICA boats from his Algonac plant. Horace Dodge, Jr., and famed designer George Crouch, also based in Algonac, successfully raced their Dodge speedboats. Today, vendors at local Antique and Classic Boat Society (ACBS) shows sell T-shirts and other souvenirs emblazoned with: "Where it all began."

Throughout Prohibition, importing alcohol into the U.S. almost always involved boats. Big, fast boats. And that's just what The Mayea Boat Works was building. It began filling orders for "luggers": beautiful plankon-frame mahogany speedboats up to 40' long, equipped with the biggest, most powerful engines available at the time. Many were powered by warsurplus Packard Liberty and Curtis aircraft engines. While the luggers looked like ordinary speedboats in profile, they had big holds instead of passenger seating. Although often covered with hatches, these holds were little more than big empty spaces with tie-downs for cases and kegs. In some instances, the boats were not even fitted with seats for the driver and guards.

But, The Mayea Boat Works was not an exclusive business-it also built speedboats for federal agents. In some cases, during winter layup, the bootleggers' luggers would lie sideby-side with federal boats. It may have been war out on the lakes and rivers, but The Boat Works was considered neutral territory. A legendary Mayea story has an overzealous agent manhandling Louis when questioning him about a lugger. When the head agent learned of the altercation, the offender was disciplined for his breach of etiquette.

Many locals are still sensitive about their area's seamy past. Charlie, a Fair Haven man now in his 80s who didn't wish to be further identified, remembers working at Mayea's during The area's growth was further Prohibition. "A lot of people around

here still don't talk about it because it was illegal. Hell, everybody was doing it. I used to make 50 cents a day working in the yard, and at night I'd sneak out of the house to help unload the luggers, and make five bucks."

While certainly the most colorful, bootleggers and federal boats were not Mayea's only source of business. The auto industry, and business in general, was also booming. People spent money on cars, cottages, trips, and boats. Many early auto industry executives, in particular the Fisher family who supplied car bodies to General Motors, became Mayea customers. Until, that is, October 29, 1929: Black Tuesday; the stock market collapse; the onset of the Great Depression. Then, the only thing that kept food on the Mayeas' table was indeed the boatbuilding and repair work spawned by Prohibition.

Soft-spoken, with an inner calm springing from a lifetime working at a trade he loves, Louis's son, Herbert L. Mayea, now aged 74, remembers hearing the bootleggers come in on

hot summer nights.

"They didn't have mufflers, so you could hear them out on the bay. Fair Haven has many canals, and people used to go out in rowboats with lanterns to mark the right canal for bringing in the liquor. Mind you, most of the luggers had exhausts rigged with an elbow that could be turned down in the water so that, when they idled into the canal, they would go real quiet."

Repeal of Prohibition came in 1933, in the depths of the Depression, and things became tight at The Mayea Boat Works as the family struggled to keep going on repairs and storage. Occasionally they would build a new boat to order, but business improved only slowly.

ouis T. Mayea died in 1940. His sons, Louis T., Jr., and Herbert L. Mayea, took over the business and entered World War II with a sudden upturn in fortune. Working with the Graymarine engine company, they built four experimental diesel-powered patrol boats in which to test diesel applications for patrol and torpedo work. (The German Navy used diesel patrol and torpedo boats, while their British and American

counterparts went with boats powered



Above-One of two motorsailers built by The Works in 1937. She was 50' long and, thanks to lack of space on the river, had to be launched sideways.

Left-A typical cover for a 20' launch brochure. The brochure is thought to date from 1912 but certainly predates 1914 and the company's move to Fair Haven.

THE MAYEA BOAT WORKS High-grade Speed, Cruising and Commercial MOTOR-BOATS HYDROPLANES

> not all easy going, however: In 1963 a major fire leveled The Works' buildings, destroyed many boats, and burned up most of the company's memorabilia and records. But they fought back, and even after Louis T., Ir.'s death in 1990, Herbert carried on.

> > oday, The Works is enjoying one of the biggest booms of its 87-year history. There are three new custom boats under construction and a number of ongoing restoration projects. "We're working harder than we did in World War II when we were building for the Navy," says Herbert Mayea. "Our clients want custom boats, and they want them now."

> > When you buy a Mays-Craft, you are buying a boat designed and built from scratch by The Mayea

GM-3 was one of the Mayea-built 30' to 35' sportfishing boats. It was boats. It was powered by four 225-hp diesel engines and, at that time, was believed to be the fastest dieselpowered boat in the world. The U.S. Navy kept GM-3's top speed secret, but it was in excess of 50 mph.

"We were also building some experimental lightweight, stackable landing craft for the Navy," Herbert Mayea recalls. "The Navy guys would talk about us producing thousands of boats in a few months, and the six of us working here would just look at each other. But I didn't have to worry about it for long-I enlisted in 1942." For the rest of the war, Herbert L. Mayea served with the U.S. Coast Guard.

When the war ended, there was an upsurge in pleasure boating, and through the '50s and '60s the Mayeas by gasoline-fueled aircraft engines.) built many of their popular custom

The 30' BUGSY began life as a bare-hull Hacker-Craft replica. It was bought by the Mayeas who, as a design exercise, set about modifying it.

They converted it from a triple-cockpit configuration to dual cockpits, moving the forward seating area aft. The foredeck was lengthened to cover a bunk, seating, a storage area, and a portable head. The bottom was given a modified deep-V with longitudinal running strakes, and for power a pair of 270-hp GM marine engines were installed.



the original design in consultation with his sons. He then carves a half model, which may be refined and revised. Next he lofts the lines full scale on 4 × 8' sheets of plywood assembled together on a large frame on the floor. Later, well into construction, the Mayeas create their own unique-to-each-boat hardware. Where appropriate, they will often choose contemporary stainlesssteel or aluminum fixtures, but, rather than buying stock items, they design and make the patterns for all their hardware-cleats, chocks, step pads, rails, vents, and even steering wheels. The patterns are then sent out for completion in the appropriate material. One feature that has always been distinctly "Mays-Craft" is the windshield, and those seen on the new boats are no exceptions to the rule. Mahogany framed, these windshields are not added on as with many contemporary sport cruisers, but are designed and built as an integral part of the boat.

Power units are also made up and fitted by a family member: Norm Plettl, brother-in-law to Larry and Don. Using outside machining and parts sources, Plettl assembles and finishes the engines in a garage workshop attached to his home. Because The Mayea Boat Works also handles restoration projects, Plettl is well versed in rare and antique marine power. He recently completed rebuilds on a 1933 Scripps V-12 316-hp engine weighing a colossal 2,500 lbs, and a World War I Packard Liberty V-12

Boat Works. Herbert L. Mayea draws aircraft engine (one of more than 20,000 built) weighing only 550 lbs but producing 400 hp; high power with light weight made this engine very popular in speedboats of the day.

A tour of The Mayea Boat Works offers a fascinating insight into the wooden powerboat form. In one shed is a rare 28', 1938 triple-cockpit Gar Wood speedboat being restored but with an epoxy-encapsulated aircraftplywood bottom. Purists would no doubt shriek at this sacrilege, but the owner doesn't want to worry about bottom shrinkage when the boat is stored. A 24' Hacker-Craft utility and a 30' triple-cockpit runabout are receiving similar restorations.

Chris-Craft Constellation has been completely refurbished and is now undergoing some minor touch-ups. The Mayeas have made substantive though subtle changes to its interior: They have altered ladders, access, and galley countertops for greater convenience. The refurbishing has included new engines, electronics, a new saloon, galley cabinetry stained in a Mayea-mixed honey mahogany tone, and restoration of the cabin and bridge structure.

In another building, a 50', 1962

While the Mayeas would naturally prefer to design and build their own Mays-Crafts, they have become experts in recycling older wooden





A 25' Ancarrow speedboat before and after restoration (see facing page). When the boat arrived at The Works, it had a broken and rotted structural frame, and much of the hull planking was loose of unattached. When the Mayeas had finished, she had been completely reframed, and resheathed in new marine plywood.

vachts by modifying and updating them to meet contemporary cruising needs. "We have customers who have purchased yachts for less than \$50,000, and then spent a further \$100,000 bringing them up to expectations," said Larry. "So, for \$150,000, our customer has a boat with traditional good looks, modern accommodations and equipment, but which costs a great deal less than the \$600,000 that they could spend on a new yacht."

One of The Works' most recent restorations is a rare (one of only 25 built) 25', 1957 Ancarrow speedboat. Long out of business, Ancarrow Marine of Richmond, Virginia, built hard-riding speedboats. Like the PT boats of World War II, they were planked with marine plywood to keep them light. Many were powered with pairs of 300-hp Cadillac engines, and Ancarrow Marine guaranteed a top speed of 60 mph. One noteworthy design feature was the non-trip chine borrowed from stock outboard racing hulls of the 1950s. The Ancarrow had a great deal of tumblehome at the stern, and the chine was mitered so that no sharp corner was presented to the water during turns; this prevented the hull from "tripping" or catching a chine while executing turns at speed.

The company enjoyed a short-lived but brisk business, selling many of its boats to oil sheiks in the Middle East. But, while the boats met expectations for speed, they didn't last, and so Ancarrow Marine went out of business.

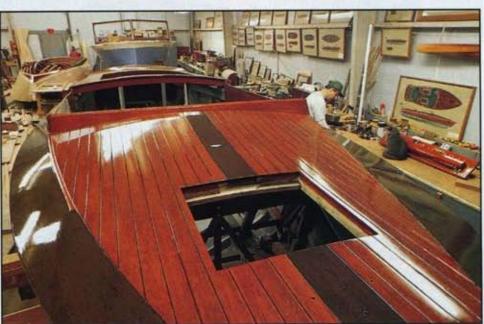
When the Ancarrow speedboat first came in to The Mayea Boat Works, Larry Mayea described it as a kit boat-so far gone that it would barely float. Much of the structural frame was broken and rotted, and in many places the hull planking was unattached. Original frames were used as patterns and replaced. The boat was completely resheathed in new marine plywood. A pair of custom bucket seats were fashioned out of mahogany with burgundy leather, the latter also being used on the bench seat aft. A custom mahogany instrument panel and a 1950s-style automotive steering wheel complete the passenger area.

Aft, under custom-built hatches, sit two 300-hp 360-cu-in Chrysler marine V-8s—a package which provides the boat with sufficient power to reach her original 60-mph design speed.



A 400-hp cast-iron Chrysler Hemi engine, one of two built up by The Mayea Boat Works to power a Mays-Craft runabout.

The engines have eight singlebarrel carburetors. The unique intake manifolds were created by the late Keith Black, legendary drag-race engine builder.



The main shop of The Mayea Boat Works with two restoration projects underway. In the foreground, a rare Ancarrow runabout nears completion; behind, a 24' Lyman receives new planking.

In a third Mayea building, SEA FOX RUN awaits her annual cleanup are returned to Anchor Bay each fall and repainting after a summer of to receive the annual maintenance serious cruising. A 44' sport cruiser designed and built by Mayea for Richard Fox, she is meant for serious cruising-she is powered by twin 680-hp B.P.M. V-12 engines. But she is not a fast, empty cruiser: Her extensive equipment includes generator, hot water, stall shower, radar, washer/ dryer, microwave, and accommodations for four, and she can sleep two more on lounges in the cockpit.

Near SEA FOX RUN are several older Mays-Crafts, dating back to the early '50s—side by side, these boats, young and old, represent the evolution of the more than 400 Mays-Crafts that have been built since The

Works was founded. The older craft and care that their owners believe can only be provided at Mayea's.

But it's not all restoration, refit, and repair. There are also three new Mays-Crafts currently under construction: a sport cruiser and two runabouts, all of which will run on the Mayeas' version of the modified deep V-bottom. The Mayeas studied the deep-V designs of offshore racers and high-performance sportfishermen, and worked out a constantly changing deadrise configuration that flattens out aft from a sharp entry forward.

The bottom is an evolutionary rather than a technological breakthrough. The Mayeas arrived at the



Don Mayea taking framing measurements from a half-model of a 36' Formal Runabout.



Herbert Mayea inspects the framing of a 36' runabout that will soon be planked up.

models, and trial-and-error on a series of runabouts. But it works, and works well in all sea conditions. The bottoms of all three new boats will be triplelayered, epoxy-encapsulated, aircraft plywood over mahogany frames. On the sport cruiser the bottom flattens to 12-degree deadrise at the transom, while on the two runabouts that angle is 13 degrees. It was deemed neces-

best shape through half and full Mayeas feel the more moderate deadrise aft lessens roll without damaging performance or seakeeping.

The hull lines of the two 36' runabouts are similar; both have dramatic flare at the bow, and tumblehome at the transom. They will also both be powered with high-performance, big-block, gasoline engines. But they differ in layout. One is designed as a "formal" runabout with forward sary for the heavier, beamier cruiser and aft cockpits, dual windshields to have slightly more stability aft (the rear windshield being split to because people will linger in the accommodate passenger movement). open afterdeck area. Nevertheless, and a walk-through between the midthis design is less radical than many mounted engines from the front to popular production boats, since the the aft cockpit. A forward cuddy is

provided for napping, storage, and a portable head. The second boat has one very large cockpit forward: Pilot and companion bucket seats swivel to the rear to face a large, semicircular bench seat that will hold six adults. A cuddy beneath the foredeck houses a lounging pad, storage space, and a portable head.

The 41' sport cruiser is destined to be a real head-turner. Its unbroken sheer sweeps down from the higher foredeck to provide less freeboard aft for over-the-side fishing and water sports. The forward accommodations will include a stateroom with centermounted, walkaround double berth, lockers, adjacent head with stand-up stall shower, and a saloon area with galley and table-settee combination. All will be finished in honey-stained, matte-varnished mahogany, with custom-fabricated Corian countertops, and focused lighting. Aft, the area behind the helm station will be left open, but will have built-in seating together with storage lockers for fishing, docking, anchoring, and water sports gear.

When complete, the new sport cruiser will represent about 5,000 hours of labor. The two new speedboats will represent about 4,000 hours each. A major restoration of a runabout takes more than 2,000 hours. Contrary to popular conceptions about custom boats-and especially custom wooden boats-being very expensive, the sport cruiser is expected to be launched fully equipped at a price competitive with that of similar production fiberglass boats. Depending on the power (again, the Mayeas are looking for some reliable, durable, big-block, gasoline engines that will deliver consistently high performance), the boat will achieve a top mile-per-hour-speed in the mid-50s, with a cruising speed in the high-30s. Speed has long been a Mayea criterion: SEA FOX RUN, for example, routinely cruises with a family of four plus friends at 30 mph. The boat's top speed of more than 45 mph enables her to pass many deep-V runabouts designed for ocean racing.

As with all recent Mayea boats, the three new Mays-Crafts will be built of Philippine mahogany. Whereas many wooden boat builders prefer Honduras or African mahogany for color and grain, the Mayeas believe that Philippine mahogany is more

resistant to splitting. Any mahogany is expensive—the mahogany in the sport cruiser's keel, structural frame, and hull planking cost \$38,000.

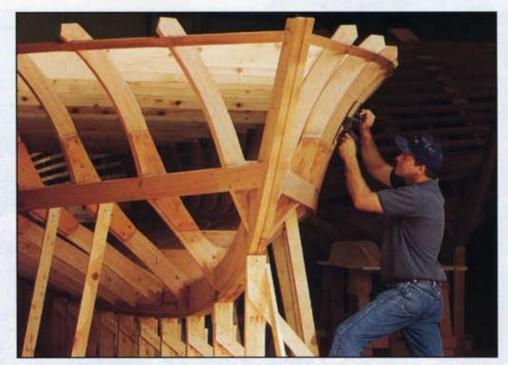
The Works still uses plank-onframe construction, but much has changed through the application of new materials; the stem, chine, and frames, for example, are laminated with several layers of mahogany rather than sawn or steam-bent from single pieces of stock—the resulting laminated structural members are thinner and lighter, yet stronger than a single sawn or formed piece. Similarly, stainless-steel fastenings are used for their strength and their resistance to corrosion. All hull and deck seams are glued with epoxy for strength.

In the past, the Mayeas used Michigan white oak for frames, finding suitable standing trees in forests, and having the lumber milled to their own specifications, before air-drying it for a year, and finally treating it extensively with wood preservative just before using it in construction. In the '80s, however, the lumber mills began harvesting all the oak they could find, and selling it to Japanese buyers. This action inflated prices and made good, clear, white oak hard to find. So the Mayeas began to replace the oak with laminated mahogany, a wood that they found bonded well with epoxy. They also discovered that, for the required rigidity and strength of the engine bearers, clear fir was more suitable than the available oak, which often checked, split or twisted.

With three new boats underway, The Mayea Boat Works won't be exhibiting at many shows in 1995. Larry says his staff of six, augmented by contract specialists when needed, is already working to capacity. He is reluctant to hire new help. "I don't like training young people, because they don't seem to want to spend the time it takes to learn."

However, Larry is hopeful that his 16-year-old son, Chad, will follow him into the business. Chad's formal training has begun on the restoration of a '50s Chris-Craft runabout, and Don Mayea has similar aspirations for his young son.

powerboats, especially runabouts. They are proud of their restoration





Above-Prior to planking up, the dramatic flare forward is very apparent. If you follow the lines aft, this considerable curve is slowly reversed to offer uncompromising tumblehome at the transom.

Left-Three generations of Mayeas: From left to right, Don Mayea, his nephew Chad Mayea, his father Herbert L. Mayea, and his brother Larry Mayea, They all work in the yard-Chad, sixteen, has begun his formal training working on the restoration of a 1950s Chris-Craft runabout. The family hopes that Don's son will also join the company.

Mays-Crafts. They also feel that the admit to sneaking off sometimes for boats that they produce should be used and enjoyed, not be display pieces. "We want our customers to have boats they enjoy running and cruising; we don't want them to just tie up at a boat show dock, and then spend the day talking about boating."

The Mayea crew normally works six days a week and has little time to get out on the water. Handling SEA FOX RUN for a photo session on a beautiful afternoon out on the lake, The Mayeas appreciate wooden Larry was clearly edgy. "I've got too much to do, I haven't got time to be out here," he said. But, in spite of the work and especially proud of their ever-present call of work, Larry does

a late-afternoon ride in the yard's demonstration runabout, BUGSY. "It reminds me of just why our owners enjoy their boats," he said. "Out there on the lake, nobody can get at you, and you have time to think and dream."

Mayea Boat Works, Fair Haven, MI 48023; 313-725-7111.

A lifelong wooden boat owner, Bob Pearson spent 10 years in offshore powerboat racing as navigator, throttleman, and crew chief. He now works as a freelance writer out of his island home on the St. Clair River, near the old boat plants of Chris-Craft, and Gar Wood.