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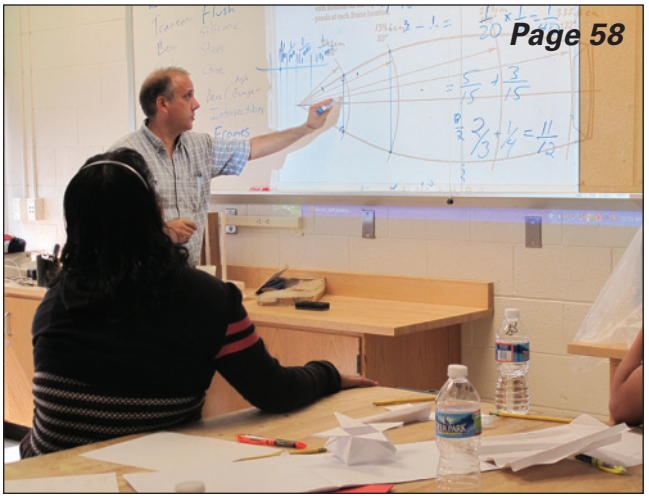

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Cover: SEAL, a Herreshoff 12½ from the WoodenBoat School fleet, sails by the WoodenBoat boathouse in July 2024. Herreshoff and Haven 12½s are the core boats of the school's sailing program.
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Photograph by Alison Langley

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Fifty Years and 300 Issues

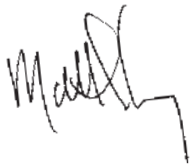
One of my earliest childhood memories is of an outing at age 3 in my paternal grandfather's 32′ Chris-Craft Sea Skiff—a lapstrake-planked cabin cruiser that was just a few years old at the time. My recollection of that day on the water is more of impressions than fine points: the purr of the gas engine, the mildewy smell of a kapok lifejacket, and the salty taste of one of that lifejacket's straps. I didn't know it then, but this was the tail-end of mainstream wooden boats.

The Chris-Craft was sold soon after that trip, and there would be a moratorium on boat ownership in my immediate family for several years while my parents grew acclimated to having three active sons. The moratorium was lifted in the summer of 1974 when our family acquired a boat of its own: a 36′ Arthur Robb–designed Lion-class sloop built of wood by Cheoy Lee Shipyard in Hong Kong. Seven years had made a big difference in the local culture of boats on Boston's North Shore: the wooden hull felt like an anachronism to my pre-teen eye. I recall, early on, wanting something more conforming, like a fiberglass boat.

Something shifted for me over the next several years. Part of it, I think, had to do with the presence in our lives of an 8′ Old Town wooden tender that I had somehow adopted as my own. Another part of it had to do with pockets of wooden boat culture sprinkled around the country and around the world that refused to concede to mass production. *WoodenBoat* magazine was founded in September 1974, and it gave voice and connection to those scattered pockets of wooden boat culture, like a primitive form of analog social media. I missed the first few issues—I was only 10 when the magazine began, after all—but my own connection to the still-thriving world of wooden boats was made fast with my own eventual first issue. It's been a consuming passion ever since.

The energy and intelligence on these pages still comes largely from pockets of wooden boat culture scattered all around. One of the great ironies of this magazine business is that, although connecting these pockets has never been easier due to digital communication, today's myriad paths of connection risk a diluting effect on the message. We've thus kept much of our focus on the printed magazine. But with this issue, our 300th, we take a leap into an enhanced digital edition that opens up for us new ways of communication—especially in video and audio—and easy and fulfilling access on a number of devices. You can read it on your phone without zooming. You can watch related video embedded within an article. (This issue's cover story on WoodenBoat School's Haven and Herreshoff 12½s is accompanied by such a video, the latest in our *WoodenBoat Legends* series.) A digital subscription also gives you access to the entire library of back issues.

If you'd like to give the digital edition a try, visit www.woodenboat.com to learn how. Please send us a note to let us know what you think—and how we can improve. Connecting with readers is as critical as ever. Our 300th issue and 50 years of publication are milestones, indeed, and we couldn't have arrived here without you, our readers.



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ASTOR, Etc.

Hi, Matt,
WB No. 299 was the first issue I've subscribed to, and it was a beauty. I've taken about two weeks to read it cover to cover, ads included, and I loved every minute of the experience. The article about the couple who have brought the schooner ASTOR back to life was a delight—as was INTEGRITY's sailing of the Northwest Passage. The clincher for me was the magazine's final article, "Save a Classic," describing the availability of the Alden Q-boat HOPE, which is at Brooklin Boat Yard (Center Harbor Boatyard in my day). This really hit home, not because I'm a worthy buyer but because the article discusses people and a boatyard I know from having spent my 21 growing-up summers, 70 and more years ago, in grandparental houses along your home waters of Eggemoggin Reach.

Sid Eaton
Bend, Oregon

Dear Editor,
I just received the July/August issue of *WoodenBoat* (No. 299). The first article I read was about the Fife schooner ASTOR. What an enlightening and interesting read that was! It's articles such as this one that will keep *WoodenBoat* the best boat magazine forever.

Larry R. Lozen
Traverse City, Michigan

Screw Removal

Dear Matt,
WB No. 299 has a nice Skills 101 article on refastening by Jan Adkins. I have a few suggestions to add to this topic with respect to fastener removal.

Bung Removal: Forstner bits are the tool of choice. I suggest that one not attempt to remove a bung of a given diameter with a bit of the same diameter. It's more work, but taking the center of the bung out with the bit first, and then collapsing the remainder of the bung using an awl or similar into the center will get the bung out and leave the hole intact.

Fastening removal: My experience is limited to bronze. Rather than starting by turning the screw counterclockwise, I suggest starting by turning clockwise. It's counter-intuitive, perhaps, but if the screw is stuck, any damage to the slot will be to the tightening sides of the slot, leaving the "business" portions intact. But, as Jan Adkins stated, there are likely further frustrations lying in wait!

Screwdriver choice: Most screwdrivers for slotted screws are slightly wedge shaped, and are, at best, an approximate fit to the slot. A better choice, in my opinion, are "gunsmith" screwdrivers, which provide a very exact fit to the intended size screw. Larger screws may require custom-made bits. I have had good luck with screwdriver bits made for impact wrenches.

As mentioned in the article, **left-handed bits** should be in one's arsenal, and

they can effectively remove the willing screw.

"Spinners": Very annoying is the screw that is willing and turns but lacks the required grip to come out. If the slot is in good condition, a Quick-Wedge brand screwdriver might be just the solution. In use, it can be expanded to fit very tightly in the screw's slot and might enable the screw to be simply plucked out.

Stubborn screws: These may be persuaded with a few taps, using a blunt punch and hammer on the head of the screw, in line with the screw. Sometimes the cautious application of heat from an electric soldering iron might do the trick.

The last tool I wish to address is the **fluted screw extractor**, which resembles a tapered lefthand drill bit and is meant to be spun into a hole carefully drilled in a screw's shank to turn the screw counterclockwise. In use, they tend to expand the diameter of the screw one is trying to remove, increasing the difficulty of getting the screw out. Assuming a headless screw, what really works exceptionally well in my experience is a slightly modified "split pin" (not a roll pin!). Use a metal file, or similar, to cut a 'V' notch in the end of the pin, centered on the split. The inside diameter of the split pin should be a wee bit smaller than the root diameter of the screw. Use this in a drill, spinning counterclockwise, pressing it into the hole in the wood and around the screw. With a modicum of luck, as the 'V' notch cuts away at the threads of the screw and surrounding wood, the roll pin will grab the screw and voila, success with one more screw!

Ed Harrow
Hopkinton, Massachusetts

Variations on the split-pin extractor are available commercially, some with saw teeth and resembling long, thin hole saws.

—Eds.

Multihull Correction

Hi, Matt,

Just a small correction to Steve Callahan's otherwise fascinating article on the co-development of multihulls and wood-composite construction. On page 53, he refers to the Prout brothers as American. They were, in fact, English, hailing from Essex's Canvey Island. I should know, because I spent quite a few years of my life building craft—mainly catamarans—from 11′ to 80′ in wood as well as in fiberglass.

Dick Johnson
Via email

Thank you for this correction, Dick. The identification of the Prout brothers as American was due to a well-meaning but misguided edit, and not an error in Steven Callahan's manuscript. Mea culpa.

—MPM


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— **William,** *Verified Customer*

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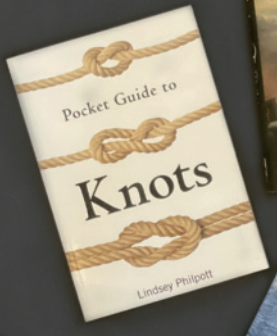

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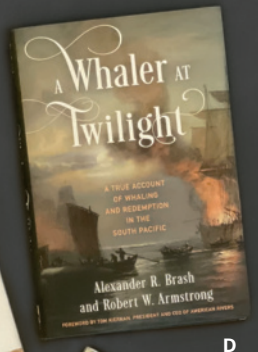

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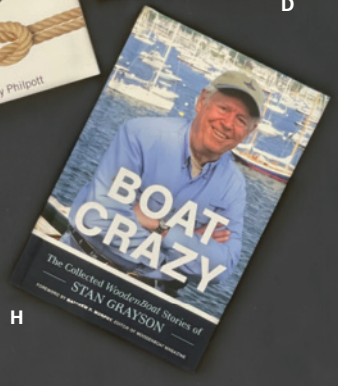

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COURTESY OF ROCKING THE BOAT

***Above*—San Francisco, California, has taken note of Rocking the Boat, which has become an institution in The Bronx, New York, with youth development programs based on boatbuilding, sailing, and rowing, as celebrated in the annual Rocking Manhattan row, shown here. Rocking the Boat's program will expand, by invitation, into a new city park in San Francisco this fall.**

Rocking the Boat expands to San Francisco

by Tom Jackson

Twenty-five years ago, I first met **Adam Green**, the **founder of Rocking the Boat** in **The Bronx**, New York, across a picnic table at our WoodenBoat School in Brooklin, Maine. I was new to the *WoodenBoat* magazine staff, and Adam was returning to the school for a second course in boatbuilding. He shared with me his vision for the **youth boatbuilding program** he had started, which by then was just taking off. He hoped that a neglected portion of his native city—he grew up on the upper west side of Manhattan—would one day have a waterfront lined with boats built by young students who learned teamwork and work skills not only by boatbuilding but by sailing and rowing. In the process, he foresaw that a sense of community and shoreline appreciation could emerge in a too-often-neglected and written-off place.

And now, its **program is going to be replicated** in a West Coast version, **in San Francisco**. "Our goal is to use boatbuilding as a means to develop young people in whatever direction they want to go," he told me during our conversation in June for my article about how boatbuilding education has changed over *WoodenBoat*'s five decades of publication (see page 58). "We're not as specific around technical content being the outcome." Success is never certain or preordained, but it all came to be: Rocking the Boat has become an institution in The Bronx, and lives have been altered by its presence.

A day before I spoke with Adam in June, the Rocking the Boat board of directors had approved a **funding and lease agreement** with the San Francisco Recreation and Park Department to start a very similar program **as part of a new $200-million India Basin Waterfront Park development** centered on the former industrial shipbuilding area of the **Bayview–Hunter's Point** neighborhood. Rocking the Boat's programs are expected to start there by **October** of this year.

The city, Adam said, had made an overture to Rocking the Boat, knowing the organization's reputation for combining youth development, technical and environmental education, teamwork, and fun in a program aimed at an underserved community. It wasn't the first time the organization had been asked to have a role in a different city; other programs, too, have been inspirational, among them The Apprenticeshop in Maine and The Center for Wooden Boats in Seattle, Washington. "I get calls pretty regularly from folks around the country and beyond who want to replicate what we do," Adam said. A couple of years ago, he approached the board for guidance on how to handle the requests, whether by some sort of consulting role or an outright replication. The upshot was a decision that any such program should be in an under-resourced neighborhood, close to neglected waterfront, in a city with the financial resources to back it up.

In San Francisco, "The community came together and developed a strategic plan for what this park would be. It's not

just a passive recreation space. They want active programming in it. And they wanted something having to do with access to the water and something that remembered its historic use as a shipbuilding site, with job readiness and basically all the stuff we do.... The community is kind of uncannily parallel to Hunt's Point in the South Bronx, demographically, socio-economically, and in its relationship with the water—it's right there, but they can't get at it," Adam said.

The city's parks director told Adam outright that the city wanted Rocking the Boat as a presence in the expansive new park, at Hunter's Point. The city's plan includes **a new 1,500-sq-ft building** that will accommodate Rocking the Boat and provide **a pier and a floating dock**. The city also offered a no-rent lease extending for nine years. "It's about a $3-million expense budget in the first three years, and they're funding 75 percent of that," Adam said. "It's one of the largest new park developments in the country, and it's getting national attention. It was kind of an 'I-couldn't-say-no' opportunity."

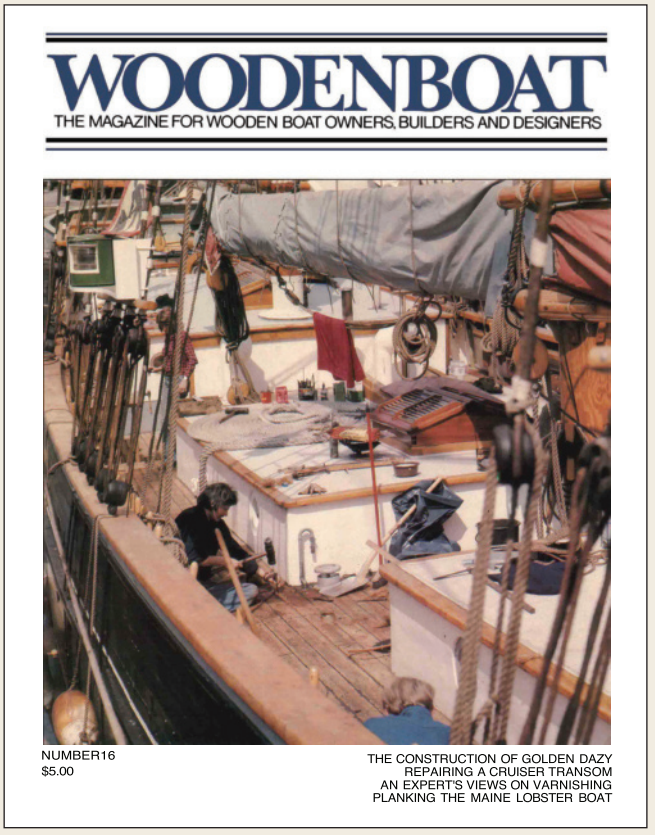
Adam said he would be going to San Francisco in September, and no doubt he will be going back and forth between the cities a lot in the coming years. Local people are already being hired for the program. As in The Bronx, 9th- and 10th-graders in the program will be volunteers but will get school credit and stipends during summers. Eleventh- and 12th-graders will be paid apprentices employed to build and restore boats, teach sailing, and conduct environmental research, learning work skills that will pay off as they enter the job market. "It's really doing **the exact same thing in a different place**," Adam said, "which will no doubt have all sorts of different dynamics associated with it, but it met those criteria that we set up in that strategic planning process."

The Rocking the Boat program in The Bronx has also shifted in some unanticipated ways. The environmental appreciation component has grown. "The way we talk about the Bronx River is that here is this incredibly beautiful natural resource that no one really knew existed before, in a neighborhood full of environmental injustice and degradation," he said. "These are young people who live in one of the most densely populated cities in the country and in one of the most densely populated boroughs with the least amount of park space in the city. Even in those parks, they're not wild places. And you come down to the Bronx River, and it's a wild place. Certainly, it's something that has really become much more of our mission over the last 20 years or so, connecting people to this amazingly beautiful natural resource." As many as 300 people have turned out for Saturday community rowing, sailing, and birdwatching outings. "It's just the most joyful thing to see."

Adam sees vast potential for the same thing on San Francisco Bay. Aside from the bay's compelling geography, the site has comparatively calm waters, being tucked in the lee of the city's hills and well south of the Golden Gate. Just as in The Bronx, the student-built boats will help link the community to a neglected waterfront. "Everything we do has got to be fun," Adam said. "We are an entirely self-selected voluntary population. The only reason that kids are here is because they want to be here, and it's our job as educators to keep them wanting to be here. Our activities are all really dynamic and engaging and full of joy and accomplishment, and, absolutely, fun."

For more information, see www.rockingtheboat.org and www.ibwaterfrontparks.com.

Tom Jackson is WoodenBoat*'s senior editor.*



WB No. 16, May/June 1977

Memories of first WoodenBoat sightings

Elsewhere in this issue (page 78), **Randall Peffer** recalls his initial encounter with *WoodenBoat*, or *The WoodenBoat* as it was known until issue No. 15. That sparked a memory for me.

I still recall the **first issue of the magazine** I ever saw. I was covering the Oregon legislature for the *Daily Emerald*, the college newspaper of the University of Oregon, in **spring 1977**. While sitting in a particularly dull committee hearing, I noticed that a public radio reporter, Russell Sadler, was sitting in the row in front of me and a few seats over. He was paging through a magazine opened up inside of whatever document was the subject of the protracted hearing. I could make out golden-hued photographs and unmistakable curves—which I immediately recognized as boats built of wood. Later that day, I tracked Sadler down in the press room and asked not about his views of the issue under discussion but instead what that magazine was. Soon I received in the mail the first issue of my own subscription. A couple of years later I moved to Washington, where I discovered the Port Townsend Wooden Boat Festival. A couple of years after that, I was living and working, for a time, in the San Juan Islands at a job I only took because it was there. I never saw Sadler again. Recently, however, I came across a notice somewhere saying that he was living on a boat in Friday Harbor on San Juan Island. For me—and I hope it was the same for him—wooden boats have remained a constant, a center point around which everything else revolved.

In my article on page 58, I write about schools teaching boatbuilding—which were rare and far-distant in my day—

and the young students who **yearn for something tangible**, something created, something permanent, which resonated with me. Nothing is more ephemeral than newswriting. *WoodenBoat* was an antidote, and I devoured every issue. Even articles that didn't pertain directly to my interests, or that involved yachts far beyond my means, had some idea or method that I could put to use or take as inspiration. Later, right after I worked my last day in newspaper journalism (a very good business to be out of), I was building a deck off the back of my house in Astoria, Oregon. I had just bolted a beam into place, and I took a break to watch the soft evening light that washed over the Columbia River after a rain, the clouds rolling in off the ocean, the high bridge, the ships at anchor—it brought me to a halt. I just sat there for a while, feeling part of it all. I never felt so free. God, it was great to be building something again. And after just a short while, I was lofting the boat that I built in the basement of that house.

While we're on the subject of memories, an occasional *WoodenBoat* contributor, **Ken Textor**, contacted us with **this recollection**:

"In the **mid-1970s**," he writes, "I stumbled on a **31′ English-built double-ended gaffer** sitting neglected and amid weed and timothy grass on the shores of Lake Winnepesaukee, New Hampshire. Despite the deteriorating economy and my total lack of experience sailing or woodworking, I shrugged and wrote a check for what my gut told me was a very handsome boat. It was in serious disarray, with its engine in a barn, mast in a shed down the road, sails at a local marina, and so on. The owner handed me a **bill of sale** and a **batch of 11 magazines** called *The WoodenBoat*. 'You might as well have these too. I won't need them,' he said. He had purchased a fiberglass boat.

"At first, I sought advice from my elders, especially a U.S. Navy veteran who pronounced the boat 'basically sound.' *The Woodenboat* became my second source on subjects ranging from copper rivets and iron keels to electrolysis, red-lead paint, and varnish-brush maintenance. The learning curve was steep and lofty, balanced only by my ladder of enthusiasm and grindstone work ethic. And I found there were different opinions. Ever thrifty, my friend said I could simply nail some leftover mahogany planks in place on TRIOLET's afterdeck using standard galvanized house spikes set deep and puttied over. But a WB No. 12 article on fastenings stated, 'It is a crime to refasten a boat that was originally bronze-fastened with anything but bronze.' She was fastened in the 1950s using mostly copper rivets and bronze screws, with some iron here and there. Still, I got the author's drift: Don't mess around. Do the best you can.

"So I tracked down bronze screws, which seemed wildly expensive but proved quite satisfying to drive home with a brace and bit. 'Good enough' was never again good enough. Living on TRIOLET and **working in boatyards** up and down the East Coast, I found that **a copy of *WoodenBoat* was always nearby**—in a lunchroom, on a cockpit seat, on a workbench. Who could resist just gazing at those photos of classy boats, both sail and power? Taken altogether, the message was, 'You can do this; this is a very different path, but that doesn't matter.'

"I eventually settled in Maine, and as in those earlier years *WoodenBoat* was always near at hand. Eventually, a few issues even carried my own writing. We both followed a long and unpredictable half-century path to satisfying accomplishments. I'm **going to celebrate** with a **trip to the local sawmill** to see what 'presents' they have in cedar, oak, and maybe a little mahogany."

Around the yards

■ "It has taken 87 years, but at last someone is building a **new Q Class yacht**," Nic Compton writes from across the pond. "**Spirit Yachts** in Suffolk, England, recently announced that the company has been **commissioned to build a modern version** of the Q Class yacht **FALCON** built by the **Herreshoff Mfg. Co.** in **1926 to a design by Burgess, Swasey and Paine**. The new boat will replicate the original design, including the long keel and fractional rig, but using modern wooden-hull boatbuilding techniques and materials.

"The Q Class was one of 10 classes created by the Universal Rule devised by naval architect Nathanael Herreshoff in the early 1900s. The most famous boats built to the rule were the J Class yachts used to race for the AMERICA's Cup between 1930 and 1937. The Q Class were the J's little sisters, typically just under 50′ long and 9′ beam, and sometimes referred to as 'mini-Js.' There were probably about 16 Q boats built between 1904 and 1937, of which six are thought to survive, and more followed later.

"A mini-revival of the class was launched by AMERICA's Cup skipper Dennis Conner when he restored the 1925 Johan Anker–designed LEONORE (renamed COTTON BLOSSOM II under Conner's tenure) in 2004, followed by the restoration of the Frank Paine–designed FALCON II (renamed JOUR DE FÊTE) in 2007–08. There have also been efforts to build new Q boats with modern appendages, but these have so far come to naught.

"FALCON, renamed LIVELY LADY, raced successfully at Marblehead, Massachusetts, and then on the Great Lakes, winning the Chicago–Mackinac Race in 1940 and '41 and the Queen's Cup Race five times between 1948 and 1958. She was

COURTESY OF SPIRIT YACHTS

Spirit Yachts of Suffolk, England, is building a modern Q Class yacht, with an expected launching in 2026, to a design by Burgess, Swasey and Paine.

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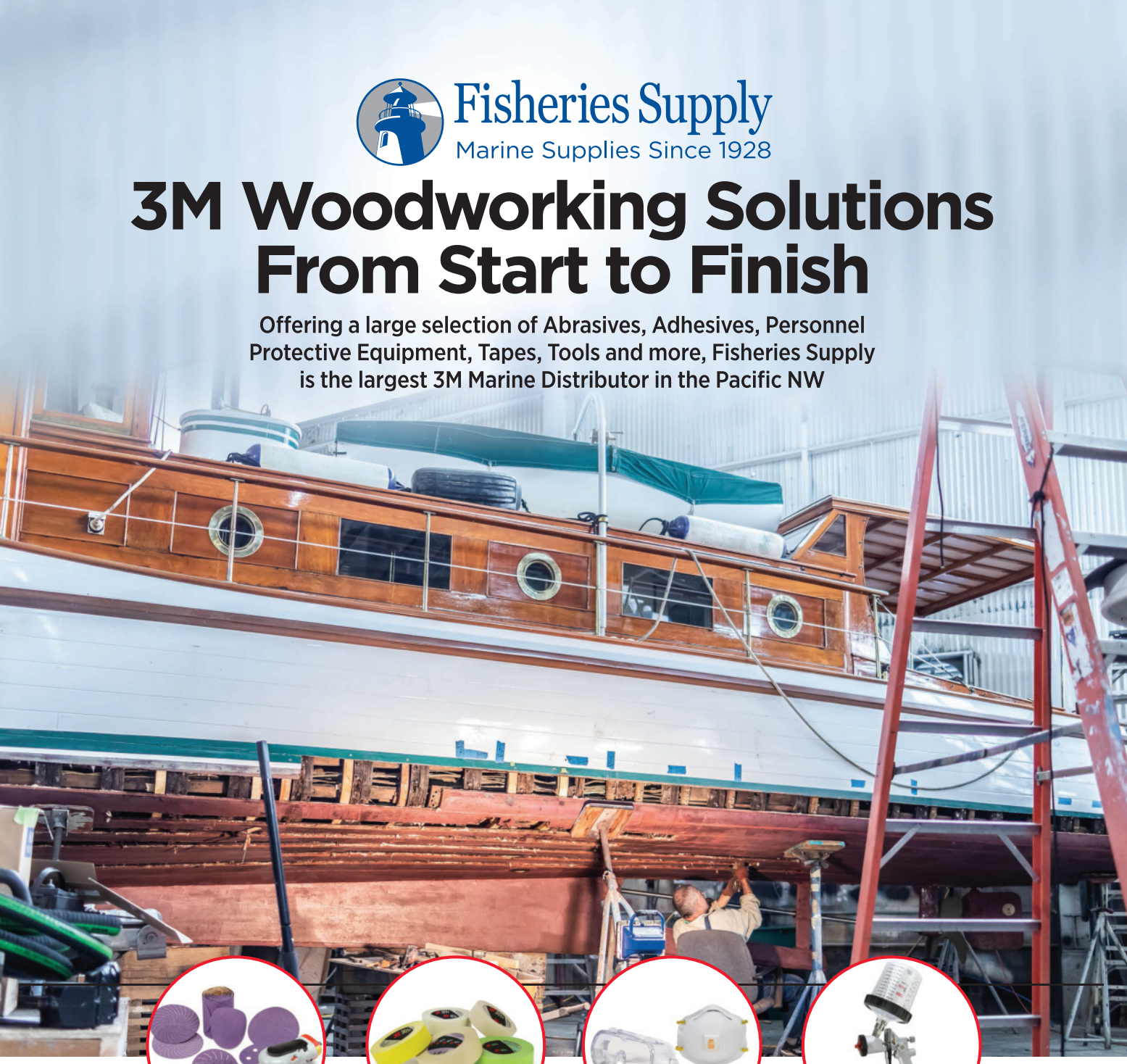

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restored by John Anderson in Maine in 2007–12. After several years on the hard, the boat was bought by Peter Silvester under the guise of Q7 Yacht Designs (Q7 being FALCON's sail number), and relocated to San Diego, California. That was when the idea of building a new boat to the old design was born. As the Q7 website puts it: 'After carefully introducing her to the Pacific and stepping the mast, the team set about tuning the rig and were delighted to learn what generations of sailors already knew—she sails as good as she looks!'

"Silvester turned to the design team of **Gerard Dykstra** in **Holland**, a company that has been responsible for the restoration of several old J-Class yachts as well as the design of several new ones, to reinterpret the Q boat for the 21st century. The new boat will incorporate modern rigging and deck hardware, along with state-of-the-art domestic and navigation systems, to create an easy-to-sail and easy-to-maintain contemporary yacht with classic lines. 'The FALCON Study will reimagine FALCON's original design using the best systems, materials, and craftsmanship available today,' Silvester said. 'Imagine taking the beauty, sailing pleasure, and race-winning pedigree of an original Q Class like FALCON and refining her to deliver optimum performance combined with modern maintenance characteristics and ease of use.'

"The 'FALCON Study' is expected to **begin construction this spring** and **launch in 2026** to coincide with her older sister's centennial."

MATT LIS (BOTH)

***Above*—A gaggle of gaffers, many of them historic dinghies, gathered in Woodbridge in Suffolk, England, where two historic boatyards are now under one owner, Eric Reynolds. *Below*—Woodbridge Boatyard built the first of five Deben Cherubs 100 years ago, and all of them are still sailing.**

■ **Matthew Lis**, general manager of **The Woodbridge Boatyard** in **Suffolk**, **England**, writes with news of changes there: "In April 2019, ownership of **the yard transferred to Eric Reynolds**," he writes, and "in Eric's ownership, work from the yard has been shortlisted for a number of awards, **employment** has increased from **3 to 15**, and the yard has started training young people to help keep up with expansion. The boatyard was founded in 1889 by A.A. Everson and has built, maintained, and stored boats on the same site ever since. In 1912, the original boatbuilding shed burned down and was replaced by a temporary building known as the 'Phoenix Works,' which is still in use today. In 1969, the yard passed from the Everson family to Peter Darby, and again changed hands in the 1990s to Frank Knights. In 2001, the yard was taken over by a group of local yachtsmen who ran the business until Eric's ownership.

"Meanwhile, **Waldringfield Boatyard Ltd.**, has **also been transferred to Eric** as of **July 2023**. Founded in 1921 as Nunn Brothers by Harry and Ernie Nunn—who rented a piece of land from A.A. Everson, under whom they had apprenticed—the yard was exceptionally successful, particularly when building racing boats. It was run by Mark and Emma Barton until Eric took ownership a year ago, and in so doing the two yards have come full circle to be reunited in ownership and purpose.

"One hundred years ago, Everson's boatyard launched **CHERUB**, the **first** of what became the **Deben Cherub design**. Nobody would have thought that in 2024 **she and four of her sisters** would be **sailing together still**. But over the late-May bank holiday, Woodbridge and Waldringfield boatyards hosted the **East Coast Old Gaffers Association** for the biennial River Deben Rally, which this year included a special centennial celebration of the Cherubs." Boats came from the Deben and neighboring rivers in Suffolk and Norfolk but also from as far afield as Southampton. The colorful ensemble included Drascombe Luggers; Cornish Shrimpers; Deben Luggers; a Dutch sailing barge built in 1900; a fishing smack built in 1889; PETER DUCK, the famous ketch built for the author Arthur Ransome (see WB No. 295); the Albert Strange–designed MIST; two tugboats; a fleet of several Gaffling 4.1 gaff-rigged dinghies designed for hard-chine plywood construction by Andrew Wolstenholme; and a fleet of various historic Everson-built boats.

"While races were used to give the weekend structure, nobody would have mistaken this rally for an open meeting or regatta; non-racing boats whose owners just wanted to sail in the same direction as the competitive boats were just as welcome as were the larger, historic vessels of owners who came just to moor at Waldringfield and soak up the atmosphere," Matt wrote. "The two yards both have long legacies of building and maintaining dinghies and small yachts designed for enjoying the **simple pleasures** of estuarine exploration, a picnic under sail, sculling up secluded creeks, or visiting remote beaches, and this **weekend exemplified those joys**." The next River Deben Rally will be in 2026.

Woodbridge Boatyard, Everson's Wharf, River Wall, Woodbridge, Suffolk IP12 4BB, England; www.woodbridgeboatyard.com.

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NIGEL SHARP (BOTH)

***Above*—MARIQUITA, a 1911, 19-Meter-class yacht designed by William Fife III, took overall honors at the second running of the Richard Mille Cup, a new classic yacht regatta in the English Channel. *Right*—Among the invited yachts were the Fife-designed cutters MOONBEAM IV of 1920, in the foreground, and MOONBEAM of 1904, astern.**

Offcuts

■ We're always heartened to hear about **new classic yacht regattas**, and **Nigel Sharp** writes about one in England: "The second edition of the **Richard Mille Cup** took place in and around the English Channel in June. The format is thought to be unique in that it combines inshore and offshore racing for classic boats. Just as it did in 2023, the event was scheduled to start with three inshore races in Falmouth, Cornwall, followed by a 65-mile passage race to Dartmouth, a 90-mile overnight passage race to Cowes, three inshore races in The Solent, and a 100-mile overnight passage race to Le Havre on the northern coast of France, where the event would culminate with one last inshore race. The event's sponsor, Swiss watchmaker Richard Mille, had commissioned the exclusive British jeweler Garrards—the same company that produced the AMERICA's Cup trophy—to make a **magnificent 3′-tall perpetual sterling silver cup** to be presented to the overall winner. This was an invitation-only event for **yachts built or designed before 1940** or **faithful replicas**. The four host clubs are the Royal Cornwall Yacht Club, the Royal Dart Yacht Club, the Royal Yacht Squadron, and the Société des Régates du Havre, and all have historic links with yacht racing going back to the early part of the 20th century or before.

"Ten of the 12 participating yachts were wooden-hulled. The Black Group consisted of the 1929 Bermudan staysail schooner VIVEKA, designed by Frank Paine and built by Fred Lawley in Massachusetts, and three gaff cutters designed and built by William Fife III that are all now based in Brest, France: the 1911, 19-Meter MARIQUITA, the world's largest surviving meter boat; the 1903 MOONBEAM; and the 1920 MOONBEAM IV.

The Blue Group consisted of a gaff yawl and five smaller gaff cutters, the oldest of which was THALIA, designed and built by George Wanhill in 1889, and the newest the 1922 Arthur Boyes–designed AYESHA.

After a postponement on the first day for light winds, a northerly breeze arrived, and from then on the competing yachts enjoyed great sailing conditions throughout, although a threatening forecast forced the cancellation of the last inshore Solent race to allow the passage race to Le Havre to take place 24 hours early.

MARIQUITA won the Black Group overall and was also awarded the Richard Mille Cup. In the Blue Group, the 1903 Alfred Mylne–designed Solent One Design KELPIE had the misfortune to lose her mast on the first passage race, AYESHA's crew decided not to race any further than Dartmouth, and the other four didn't cross the Channel. But all except CYNTHIA, designed and built by Thomas Jacket in 1910, had at least one race win; the overall winner in that class was the 1920 Camper & Nicholson yawl PATNA.

For more information, see www.richardmille.com/events/the-richard-mille-cup.

■ In addition to its news about expanding its program into San Francisco, **Rocking the Boat** of The Bronx also was recently **awarded the concession for running pond-yacht sailing programs in Central Park**, in Manhattan. "It opened up March 1," for the first time since the Covid-19 pandemic, Adam Green said. The program is based at **Kerb's Memorial Boathouse** on the 19th-century pond known as Conservatory Water. The 3′6″ remote-controlled model sailboats are rented by the half hour. "The staff who are leading it are all former participants at Rocking the Boat, and we're going to keep doing model boat building over the winter," he said. It's yet another way for fun to be brought

ROCKING THE BOAT (BOTH)

***Above*–Rocking the Boat is now running a historic pond yacht concession in Central Park, Manhattan. *Right*—Laser models are among the types rented by the half-hour at Kerb's Memorial Boathouse, and the staff is expected to lead winter model construction classes.**

to science education—specifically the physics of sailing. And, "it's one of the most heavily trafficked corners of the globe," giving the Rocking the Boat program a higher visibility in the city. "It's been a heck of a year," Green said.

For information, see www.sailcentralpark.com.

■ Speaking of **youth boatbuilding** education programs, Joe Youcha of the **Teaching With Small Boats Alliance** (TWSBA)—which also figures in the education article on page 58—informs us that the organization's **eighth biennial conference will be October 17–19 at Mystic Seaport Museum** in Connecticut. "The goals of the conferences are to facilitate collaboration, encourage idea sharing, identify and share best practices and projects, while strengthening connections between organizations and individuals," Joe's note said. Boatbuilding, as Joe has proven, is an excellent way to teach science, technology, engineering, and mathematics. "Over 300 organizations do this work serving over 100,000 young people and 100,000 adults each year," Joe said. "These organizations share their knowledge through TWSBA. There's no need to reinvent the wheel." Membership in TWSBA is free.

For more information, see www.teachingwithsmallboats.org.

Across the bar

■ **Guilford Ware "Giffy" Full**, 97, July 6, 2024, Brooklin, Maine. Giffy Full was born in Lynn, Massachusetts, but his family's move to Marblehead put him face-to-face with the world of wooden boats via the Graves Yacht Yard, which was just across the street from the family home. His life in boats started there, interrupted only by his World War II service in the U.S. Navy, for which he lied about his age to be accepted. After the war ended, he returned to Marblehead, where he threw himself into the marine industry with characteristic vigor. In 1949, he also began a 22-year run as a captain aboard private yachts owned by Maynard and Jane Ford. He and his brother, Jim, started a company for charters, harbor excursions, and deep-sea fishing, and among their boats was the 50′ QUEEN. "Together, they ruled Marblehead harbor for over 25 years," his son, Bill, wrote.

His reputation for wooden-boat knowledge began to spread, and he went on to found G.W. Full & Associates Marine Surveyors, the pre-eminent New England firm for wooden-boat surveying. (Paul Haley, his partner and fellow Marblehead resident, died only a few months before him, in February 2024; see WB No. 298.) "Giffy's reputation as an honest and thorough surveyor of any type of boat was beyond reproach," Bill Full wrote. Wooden boats, however, remained his favorites. "He loved the work and was honored to have assessed famous vessels such as MAYFLOWER II, USS CONSTITUTION, and yachts such as TICONDEROGA, many K. Aage Nielsen–designed boats, and no fewer than 60 Concordia yawls." In the 1990s, he was a major contributor to U.S. Coast Guard recommendations for wooden-boat construction and maintenance standards published in the Navigation and Vessel Inspection Circular No. 7-95. He taught surveying classes at WoodenBoat School and shared his knowledge liberally.

After he retired—although he remained indefatigable on wooden boat surveys for many years and continued to stay in touch with boatyards—he and his wife, Charlotte, moved to Brooklin. He owned a succession of boats, among

them KITTIWAKE II, a 44′ Bunker & Ellis powerboat; FREE SPIRIT, a Concordia sloop; CARIBOU, a 28′ Newbert & Wallace power cruiser; and FULL MOON, a Frank Loud cutter. After Charlotte died in 1994, he bought a Bristol 42′ powerboat, with encouragement from his family, that he named GOLDEN RINGS in her honor. His last boat was LITTLE GEM, a fiberglass-hulled power cruiser. He cruised Maine waters, for many years accompanied by a Jack Russell terrier named Rocket, and routinely took the boat to Florida for winters; in later years, he wintered there with his daughter, Tuny Page. But he always came back to his house in Brooklin; he died in that home, as he wished, a few weeks after returning one last time.

■ **Rodger Clarence Swanson**, 80, May 24, 2024, Munising, Michigan. A native of North Dakota, Mr. Swanson had a one-room-schoolhouse youth and went on to earn a master's degree in sociology, then attended law school. He had a career of counseling, particularly for alcohol and substance abuse. He had a lifetime interest in woodworking, including building canoes, small craft, duck decoys, and half models. He started Swanson Boat Company to develop and provide traditional boat resources and teach related skills. He helped lead All Hands On Deck in Green Bay, Wisconsin. Most recently, he was best known as the producer of Oarsman Marine Tallow (see review, WB No. 215), which his daughter is continuing to make. The company also supplied oar leathering kits. Mr. Swanson also had a hand in introducing Ruud van Veelen's Savo rowboats of Finland to the U.S. market.

■ **Donald Street**, 93, May 18, 2024, Glandore, West Cork, Ireland. Born in New York City, Mr. Street shunned a conventional life, choosing sailing instead, especially in the Caribbean, where he was a pioneer of the bareboat charter business. He served in U.S. Navy submarines during the Korean War but resigned an officer training program. He then served on yachts, including a Laurent Giles–designed 57′ yawl in a Fastnet Race. He bought IOLAIRE, a 45′ cutter of 1905, and ran her as a charter boat in Grenada. He was a frequent contributor to *Yachting* and published numerous books, including *The Ocean Sailing Yacht* (1979), *Street's Transatlantic Cruising Guide* (1989), *Seawise* (1980), and cruising guides to many Caribbean island groups. (See www. street-iolaire.com/bio.htm.) He sold IOLAIRE when he was nearing 80 but continued sailing his Dragon-class sloop GYPSY in Glandore, where his second wife, Patricia Boucher, had inherited a family home.

■ **Capt. Douglas Thomas Himmelman**, 101, May 3, 2024, Lunenburg, Nova Scotia, Canada. A native of Lunenburg, Capt. Himmelman went to sea at 17, first aboard his father's fishing boat. During World War II, he served in the freighters and tankers of the merchant navy in transatlantic voyages. After the war, he became a ship's master and later a ship's pilot out of Halifax, from which he retired in 1982, next starting a harbor launch service and a shipping line between Halifax and Caribbean ports. For a season, he served as the master of BLUENOSE II. He also commissioned the construction of the diminutive wooden-hulled schooner CALANOVA, 20′10″ LWL, designed and built by Stephen Slaunwhite at Mahone Bay in 1986, which is now owned by Dan Moreland, captain of the steel-hulled Lunenburg-based bark PICTON CASTLE.

A New Lyman

COLOR IMAGES COURTESY OF CHIPPEWA BOATWORKS

LYMAN BOATS LLC

Designing and building a runabout for the 21st century

Text and drawings
by Kurt Cerny

The watercraft built by Lyman Boats are renowned for their quality, durability, and timeless style. The company was established in 1875 by Bernard and Herman Lyman in Cleveland, Ohio, moved to Sandusky, Ohio in 1928, and quickly gained recognition for producing high-quality wooden boats that could withstand the rigors of the Great Lakes. Initially focusing on fishing boats and pleasure craft, Lyman eventually expanded and diversified its lineup to include everything from sleek runabouts to spacious cruisers, all bearing a signature blend of handcrafted excellence and practical design. Though the company ceased wooden boat production in the 1970s, the legacy of Lyman Boats endures, with many examples lovingly preserved and cherished by collectors and aficionados. As Peter Spectre wrote in "Lyman Legend" (see WB No. 82), "Anybody who had an appreciation for powerboats of any kind had a Lyman, wanted a Lyman, knew someone who had a Lyman, or was saving up his money to buy a Lyman."

On any given summer weekend, it's still not uncommon to see a dozen or more Lymans on the local waters of Sandusky and the nearby islands. Anchored off the beach of East Harbor State Park or making a quick run to nearby Kelley's Island, these boats are meant not only for shows but also to provide practical enjoyment on the water.

In the spring of 2020 and the depths of the Covid-19 pandemic, Adam Sublett of Benchmark Craftsmen called me to inquire about a new custom design. Their family business, founded by his father, Nate, more than 50 years ago, specializes in the design, fabrication, and management of trade-show displays. In a typical year, Benchmark would be keeping their crew of craftsmen busy working on custom projects for some of the most prominent brands in the United States and beyond.

***Above*—Chippewa Boatworks of Seville, Ohio, has developed a new boat based on vintage Lyman designs of the 1950s, '60s, and '70s. (inset). The new boat measures 16'6" LOA, and comes in runabout (above), tender, and center-console models.**

The pandemic had put an abrupt end to in-person shows, and many of Benchmark's projects were put on hold.

Adam explained that they were looking for a project to keep their craftsmen busy until the pandemic restrictions receded. As these conversations go, I asked a million questions ranging from their business and its capabilities to the more personal. Their craftsmen were very talented with experience in a wide range of materials, from wood to plastics. They had a modern shop with all the toys you can dream of; most important were a large-platform CNC router and a large spray and finishing booth. I quickly understood that they had the ingredients of a good boatshop but were looking for a great recipe.

When the topic of the boat's intended use was approached, I was pleasantly surprised when Adam explained that their shop was in Ohio and the boat would be used primarily on Lake Erie. My yacht-design business is located in Severna Park, Maryland, but I was born and raised in Ohio, spent my summers at our family cottage on the lake near Marblehead, Ohio, and have been obsessed for many years with the types of craft that perform well on Lake Erie's short, steep waves. Since childhood, I'd hear my father and uncles debate the merits of their current boats, but the conversation always seemed to end with "nothing handles these waters like that old Lyman we had."

With my father's words echoing in my mind, I immediately thought of Lymans and began to list the characteristics that made these boats so renowned on the Great Lakes. I suggested the idea of creating a modern Lyman. Adam loved it, and we scheduled a meeting for me to meet the team, including Nate and his brother, Matt. My first impression of the Subletts was that we shared the same passions for boating, woodworking, and craftsmanship. They, too, had grown up on the water, spent summers on Lake Erie, and dreamed of building boats.

By chance, Nate was introduced to Tom Koroknay, the owner of Lyman Boats LLC, which restores Lymans and stewards the Lyman legacy by maintaining the original company's archives—the hull records, plans, photographs, patterns, jigs, and tooling. (see sidebar). We spent a day touring Tom's collection and identified the key characteristics of past models to be incorporated in the modern Lyman: a bit of tumblehome at the transom, a deck layout from the 1950s, a deep forefoot, and a flared 1960s-style bow.

With a clear path ahead, the Subletts set about creating a new company, Chippewa Boatworks, and I headed to the drawing table and computer. The new design had to be efficient to build. It also had to be easier to maintain than the original boats by using modern materials and construction techniques; however, the performance had to live up to the revered Lyman name.

Tom Koroknay, aka Doc Lyman

A native Ohioan and third-generation woodworker, Tom Koroknay has gained a reputation as the pre-eminent Lyman boat expert, earning him the moniker "Doc Lyman." Tom authored the book *Lyman Boats: Legend of the Lakes*, which details the company's 98 years of wooden boat building history. He has owned and operated his renowned Lyman Boat restoration business for more than 45 years.

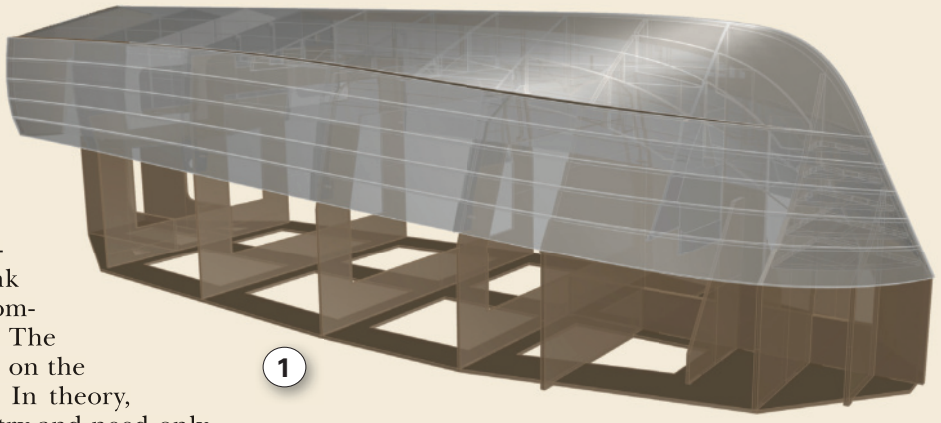
In a once-in-a-lifetime opportunity in 1988, long after Lyman Boat Works had built their last wooden boat, Tom purchased the remaining Lyman Boat Works archives and factory tooling pertaining to the company's wooden boat production line to supplement his already-flourishing Lyman-restoration business, and later acquired the intellectual property rights to the famous Lyman trademark.

Upon a visit to the old factory, Tom found patterns, jigs, and fixtures piled high on the floor ready to be sold or burned. Made from hard maple, fir plywood, white oak, brass, and steel, these pieces of tooling were works of a lost art. Tom and crew spent weeks relocating the tooling to his shop to begin the long process of cleaning and restoring these fixtures, many of which he still uses to produce factory-original Lyman boat parts. Over the past 30 years, Tom has provided Lyman Boat historical exhibits and technical information for the National Museum of the Great Lakes; The Maritime Museum of Sandusky; the Antique Boat Museum in Clayton, New York; the Chesapeake Bay Maritime Museum; and the Mariner's Museum in Newport News, Virginia.

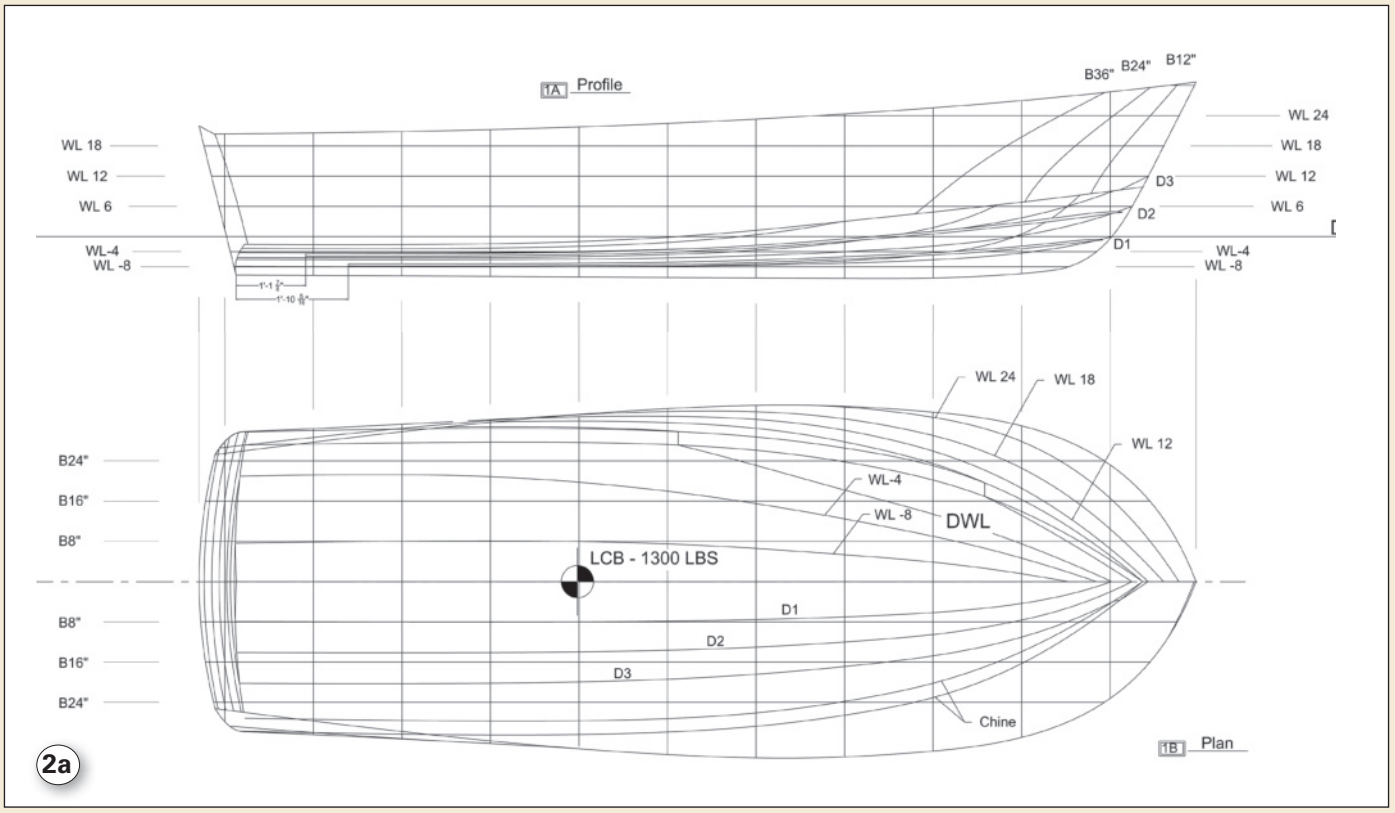
From Left, Ryan Koroknay, Tom Koroknay (seated, left), Adam Sublett, Matt Sublett, Kurt Cerny, and Nate Sublett present the first Chippewa Boatworks Lyman at the Cleveland Boat Show.

In 2020, Nate Sublett was introduced to Tom through a mutual friend, and he laid out their plan to build a modern Lyman. Tom graciously invited the crew to visit his warehoused traveling exhibit, full boat jigs for building the hulls, tooling, and the archives. We pored over original drawings, blueprints, and marketing pamphlets seeking inspiration and design ideas for a new, modern Lyman hull. Tom was impressed by their capabilities, business plan, and vision of a modern Lyman, and the two parties came to an agreement for the Subletts to use the Lyman name on their new line of boats.

—KC



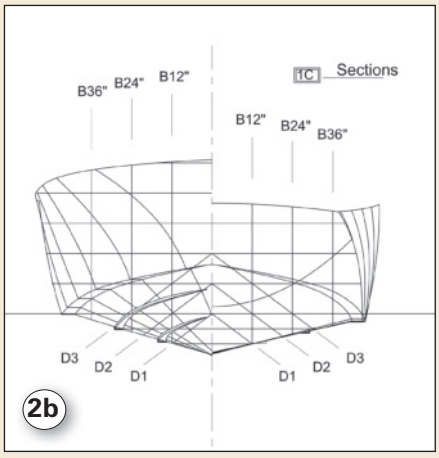
1. We spent much time discussing the construction techniques and how to best utilize the skills and tools of Benchmark's craftsmen. To quickly cut their planks, the original Lyman Boat Works had hundreds of patterns for each hull plank of every model. Today, we have computer programs and CNC machines. The topside planks were to be developed on the computer and cut on the machine. In theory, they would fit perfectly on the first try and need only to be glued and clamped to the construction jig. Furthermore, we wanted to cut as many of the components as possible, including bulkheads, stringers, furniture, and the building jig. To achieve this, the boat and its construction jig were designed using 3D CAD and it was a simple matter of converting each component to a 2D cut file that the machine could interpret.



2a–2b. A restored classic Lyman is truly a thing of beauty. However, it doesn't take much imagination to consider the countless hours spent replacing rotten planks, repairing broken frames, and maintaining its acres of varnished mahogany. Reducing maintenance and repair costs was a very high priority. It was therefore decided that the hull would have a cold-molded bottom with interior and exterior laminations of basalt fabric, glued lapstrake topsides, and an egg-crate-type structure of marine-plywood bulkheads, frames, and stringers. The cold-molded bottom would be watertight and rot resistant. Gluing the topside planks together with epoxy and incorporating a small epoxy fillet at the plank seams would ensure a very strong bond between planks. The Subletts, with their many years of experience with different paints and finishes, set out to create a low-maintenance brightwork recipe for the mahogany decks and furniture.

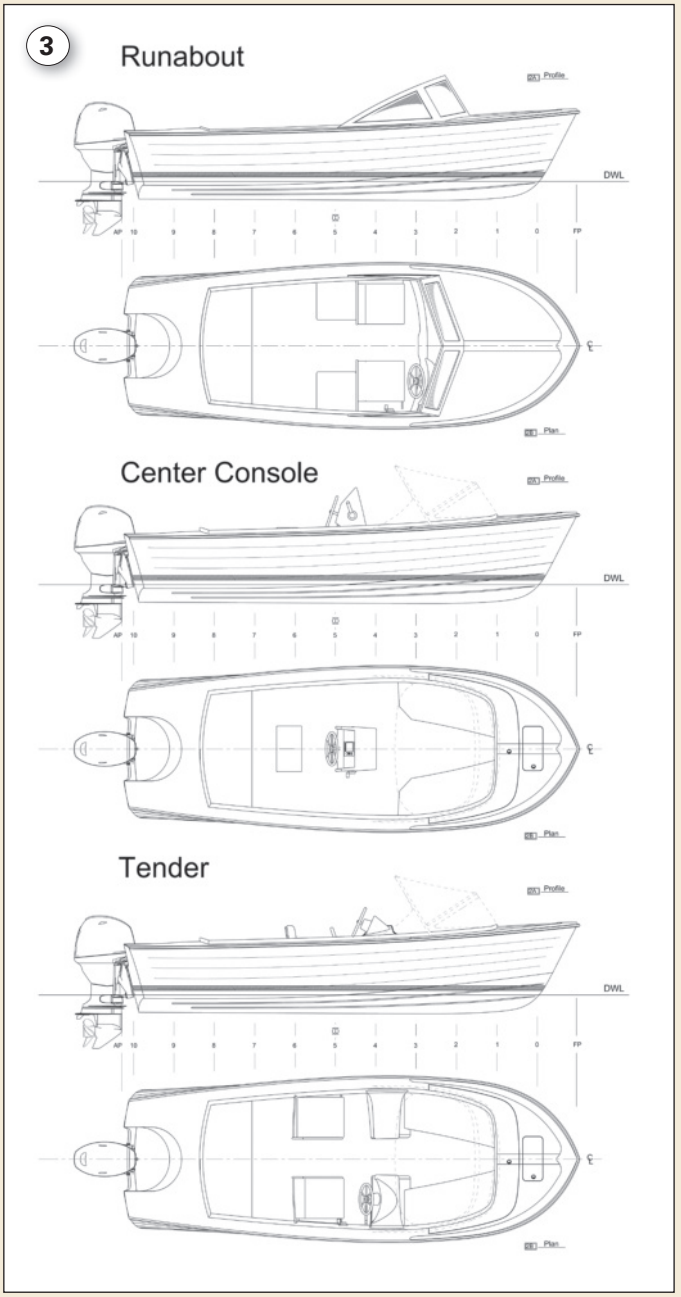
As I sat down to design the hull, I pulled out my notes from our meeting with Doc Lyman. Scribbled across the top of one page was, "it's one thing to build a boat that looks like a Lyman, but it better perform like one, too." I don't remember who said this, but I could imagine it was my father or uncles passing down words of wisdom around the old fish-cleaning table. Likely, it was Doc Lyman offering final words of encouragement (or warning) as I was heading back to my office!

In essence, the recipe for a comfortable and dry boat in short choppy seas is fairly straightforward. The hull must have a deep and sharp forefoot, ample flare to the

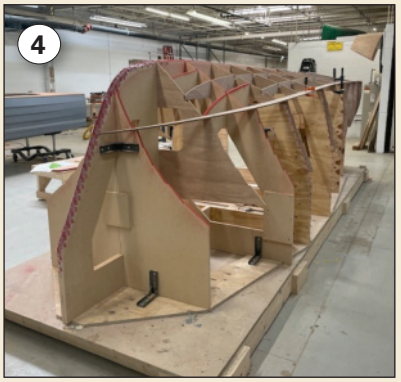


bow, straight buttocks aft for ease of planing, low beam-to-length ratio, moderate horsepower and speed, and chine flats and spray rails to keep the boat dry. These are all easily achievable on a lightweight, open runabout when I don't have to worry about cruising comforts, large motors, and blistering top speeds. I had one issue, though: the original Lymans all had round bilges. Besides the fact that enthusiasts swore this feature was the secret to a Lyman's good ride, I wasn't comfortable with marrying a cold-molded round-bilged bottom to lapstrake topsides, nor did I think it would look right. On one of our frequent video calls with the Subletts and Tom Koroknay, I extolled the virtues of a chine flat and spray rails. I rendered some views of the design and showed how the chine flat and the spray rails would be shaped to mimic the look of a lapstrake bottom and would blend in seamlessly. After much reluctance, I got the go-ahead as long as I promised that the boat would meet our performance goals.

3. Once the hull was designed, I came up with multiple interior layouts for different uses. We settled on three: a classic runabout, a center-console, and a tender. The classic, for obvious reasons, would be hull No. 1. It consists of a standard Lyman layout with windshield, fore-and-aft seating, and a bench across the back. To meet U.S. Coast Guard standards for flotation, I incorporated a rounded motorwell and enclosed the afterdeck to hide the 8.8 cu ft of foam. Foam is also placed under the sole, filling the cavities between frames and stringers to meet the rest of the Coast Guard standard.



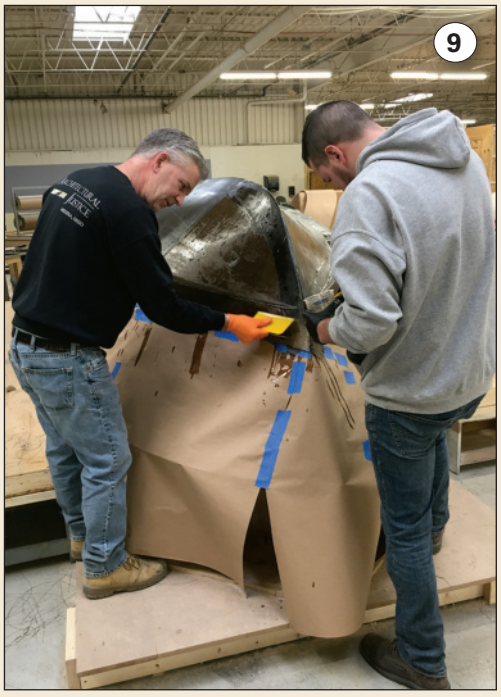
4. With cut files in hand and the CNC machine warmed up, the crew made quick work of cutting and setting up the construction jig and the transom-laminating jig. The construction jig consisted of temporary molds and forms for the stem and keel; there are also permanent bulkheads, frames, and stringers. The permanent structure was glued, and epoxy fillets were applied to all joints.

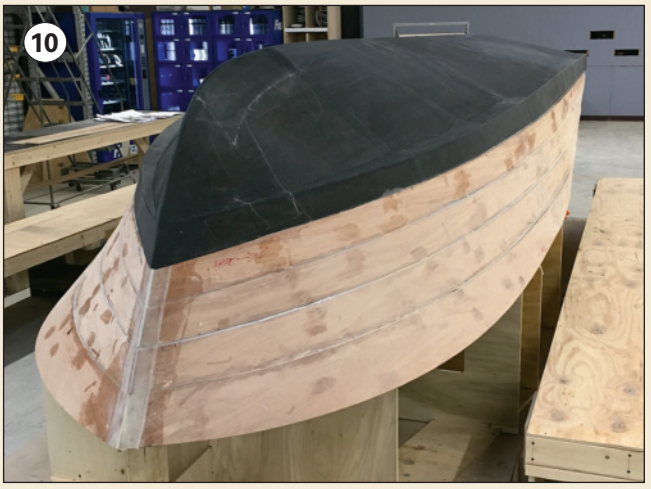


5. The transom was laminated in three layers of ½″ okoume plywood before receiving a fourth layer of beautifully figured sapele mahogany.

6–7. With the transom mounted on the building jig and the chines in place, the bottom planking began. The planking is ½″ okoume plywood aft, and it transitions to two layers of ¼″ okoume toward the bow to accommodate the shape there.

8. For the topside planks, we found that we could machine-cut a consistent rabbet on the upper edge of one plank, and a corresponding rabbet of varying depth on the lower edge of the next plank. This yielded tight fits along the length of the seams and the so-called "gains" of traditional lapstrake planking, which give the otherwise lapped plank seams a flush appearance at the stem. The planks came off the machine ready to fit to the boat.



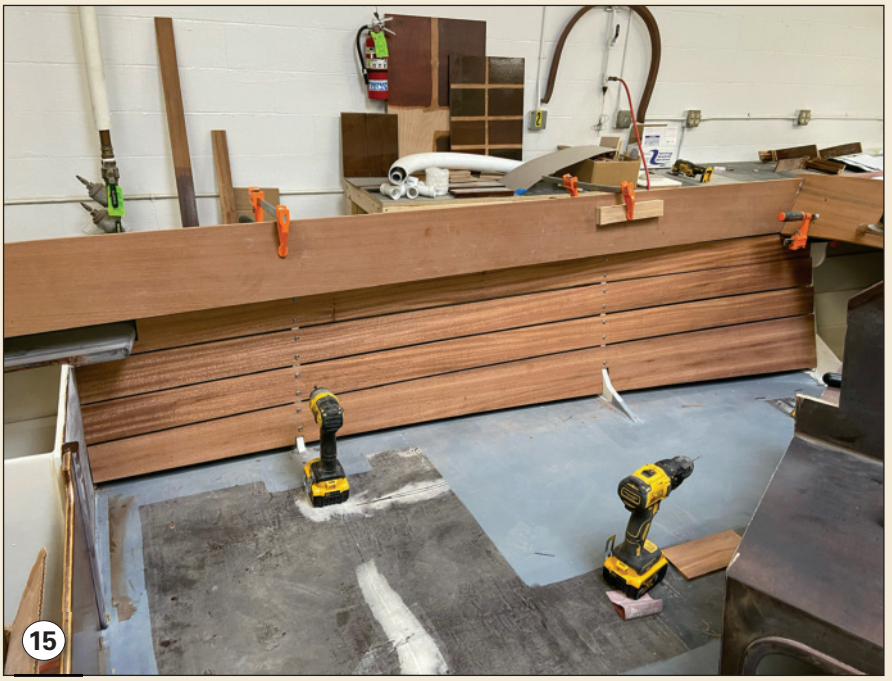


9–10. I have been recommending mineral basalt fabric on many of my small-boat designs, with great results. The fabric is similar in composition to E-glass, but uses fibers consisting of melted basalt and comes in a variety of weaves. While it offers better mechanical properties than E-glass, I also prefer it for its superior impact resistance on cored hulls. It's fair to say that it is built like a rock. In the photograph at left, Scott Hlad and Stephen Zumack are laminating the hull bottom, chine flat, and first topside plank in basalt fabric set in epoxy.

11. One of the benefits of lapstrake construction is the reduced labor during the dreaded fairing stages. The planks are developable, which is to say they curve in only one direction; such a hull typically needs very little work with a longboard to fair out the screw holes and other minor defects.

With fairing complete, the hull was primed, the waterline marked, and the boat prepared to be flipped for completion.

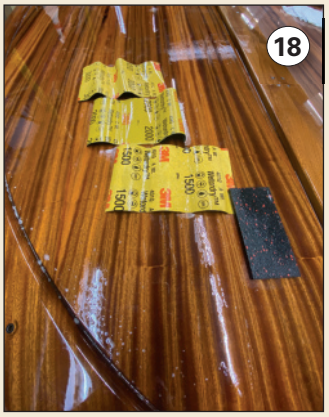
12–13. The interior structure received epoxy fillets and fiberglass tabbing before the bilge was sheathed with basalt fabric. Flotation foam was then poured into designated cavities before the sole was installed.



14–15. The craftsmen at Chippewa Boatworks had honed their joinery skills building exhibits for venues such as the Rock and Roll Hall of Fame in Cleveland, and the Cleveland Guardians Hall of Fame at Progressive Field, where thousands of fans would view their workmanship. They brought the same standards to bear on the new Lyman. In the photograph above, at left, the windshield frame is being fitted. Note the laminated helm pod in the background. Above right, a solid sapele mahogany coaming and ceiling are being installed.

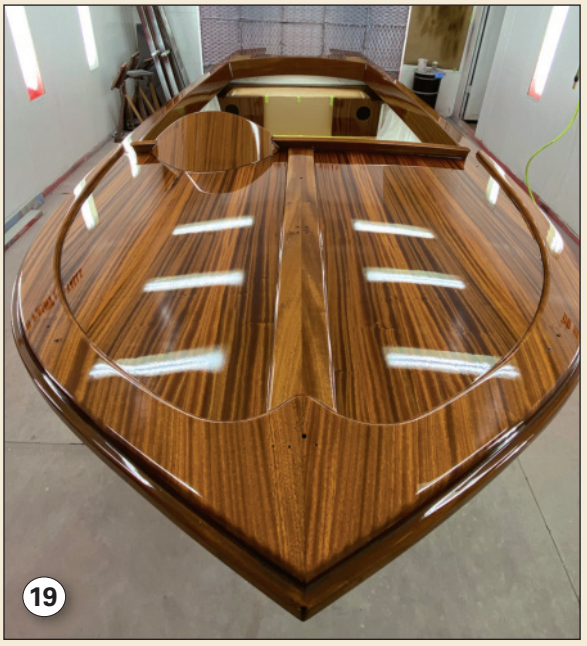
16. This helm seat is for the "Tender" model. Butterfly inserts add additional strength to the seams—and a tasteful detail.

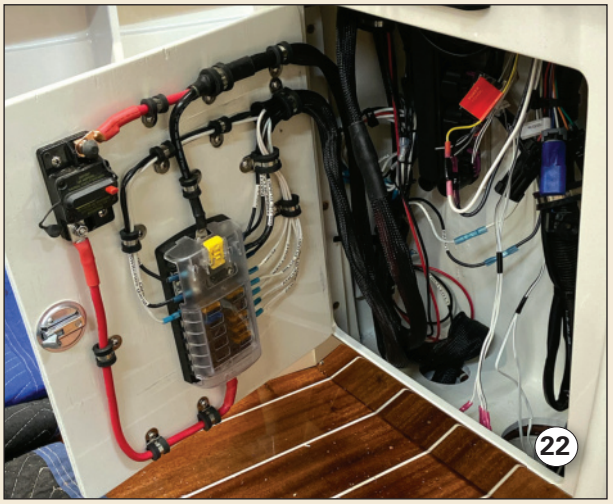
17. The hull was sprayed with Awlcraft 2000 urethanes and the bottom is painted with Pettit 1933 bronze antifouling, for a classic look.



18–21. The brightwork received extra attention and planning. At the beginning of the project, we identified the yearly maintenance of a traditional varnish system as something to improve upon in the new boat. The building crew's experience in creating displays that take a lot of abuse, punishment by the elements, and the ravages of breaking down and shipping around the country gave them a head start on creating a durable and low-maintenance finish for the boat's mahogany components.

All wood was initially sanded to 120-grit before it received three coats of epoxy to fill the grain. The finishers sanded with 180-grit between coats. When the grain was filled, they vacuumed and then wiped down the surface with denatured alcohol. (They find they have fewer issues with residue when using alcohol rather than a prep-solvent cleaner.) The boat or its components were then wheeled into the 600-sq-ft spray booth to be sprayed with three to four coats of R&M High Solid Clear (DC92) with DH44 Medium Hardener. DC92 is a two-component, high-build, acrylic-urethane clearcoat that produces a very glossy, durable, UV-resistant finish. After 24 to 48 hours, the finish is wet-sanded up to 4,000-grit, compounded, and then polished to achieve that beautiful shine.





22. With ample wire chases and rigging tubes installed under the sole, the rigging of the 60-hp Mercury outboard motor, Uflex hydraulic steering, and electrical system was a straightforward affair; it was all installed to ABYC standards.

23. When hull No. 1 was completed, I was handed the keys, hooked up the trailer, and headed north from the shop in Seville to Lake Erie for a few days of sea trials and fun. There is no denying the attention these boats get. I made it as far as the gas station before I was waylaid for 20 minutes answering questions and giving a tour to an interested couple. Multiple times on the drive I was encouraged by honking of horns followed by big thumbs-ups on the highway by fellow motorists and once, at a toll plaza, by a UPS driver.

Over the course of those few days, I had the opportunity to test the boat in a range of sea conditions, from dead flat to steep chop resulting from northeast winds of 15 knots. Pulling away from the launching ramp, I couldn't help but feel that I was setting off for a Sunday cruise driving a classic 1950s Cadillac convertible. Once past the no-wake zone, I put the throttle down. I had to check our wake to make sure we were on plane because there was no noticeable hole to climb out of. She quickly reached a top speed of 30 knots and cruised very comfortably in the 22–24-knot range while slicing through other boats' wakes like they didn't exist. On the choppier days, the chines, spray rails, and flare in the bow did their jobs, keeping the boat surprisingly dry. With the kids along, we made a game of seeing if we could find waves that could get us wet. We found only one.

She sips fuel. Calculations showed that we should get 8.5 miles per gallon of gas at cruising speed. After four days of constant use and covering more than 40 miles while running back and forth to the beach at East Harbor State Park, multiple trips to Marblehead Lighthouse, and a fun ride to Cedar Point Amusement Park in Sandusky, I topped the tank off with 7 gallons.

Looking back through the pictures and videos of those days on the lake, and reminiscing about the memories that were made with my family, I realize that this is the essence of these special boats. Each curve of the lapstrake planking, the hand-rubbed finish of the mahogany, and the polished hardware harkens back to a golden era of boating, where craftsmanship was an art and every launch a cherished tradition. Chippewa Boatworks (whose proprietor, Nate Sublett, is sitting at the helm above) is continuing what Bernard Lyman started almost 150 years ago.

Kurt Cerny is a graduate of both Westlawn Institute of Yacht Design and The Landing School of Boatbuilding and Design. After stints as a boatbuilder and manager with Belkov Yacht Carpentry and Cherubini Yachts, he established his own design office, Cerny Yacht Design, in Severna Park, Maryland, specializing in commercial vessels, recreational boats, and runabouts.

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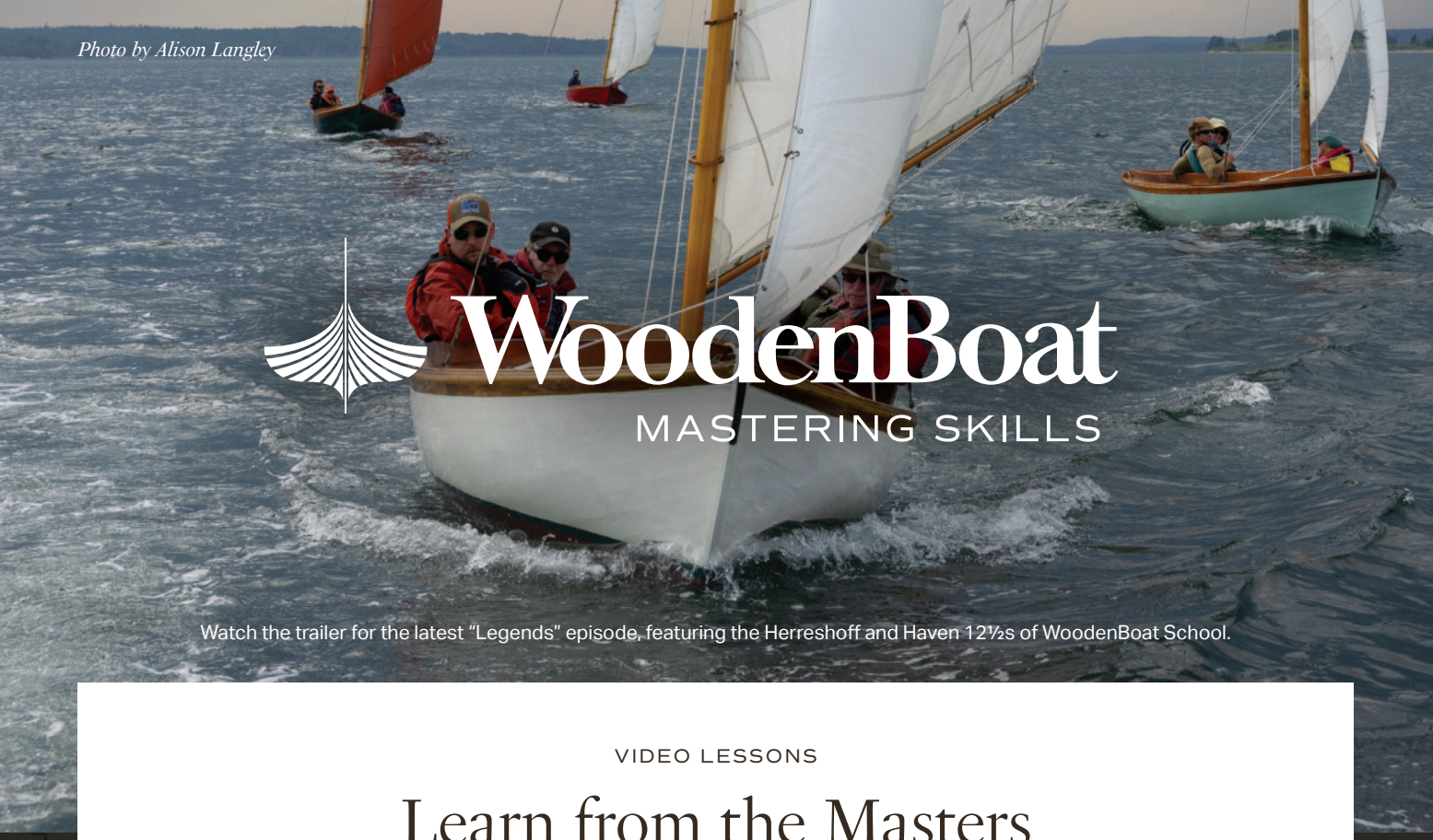

Photo by Alison Langley

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Text and illustrations by Jan Adkins

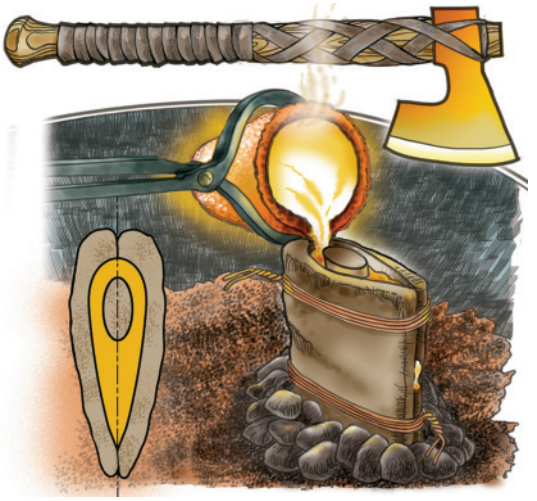
CASTING BRONZE

BRONZE was a titanic leap forward in the evolution of human civilization.

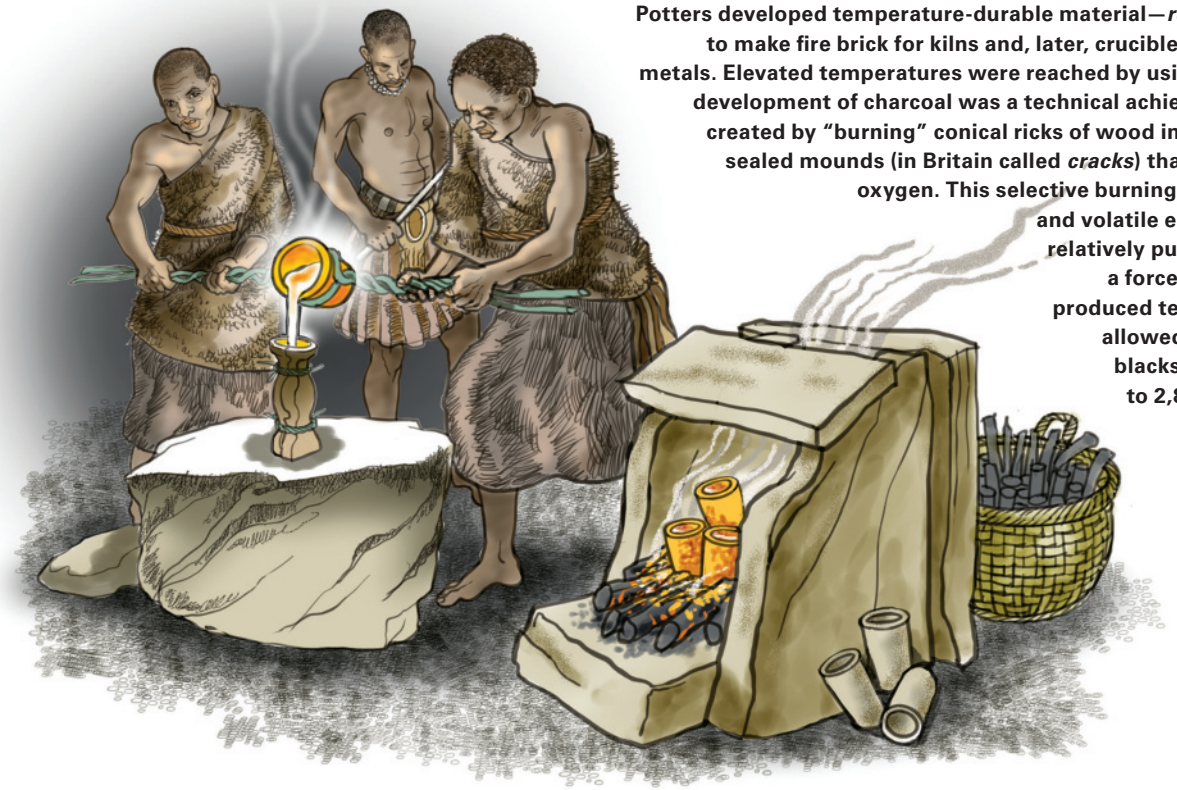
Smelting and working low-melting-point and low-strength metals such as gold, silver, and lead was hard-won generational knowledge amassed by brilliant craftspeople working with improvised tools. Overcoming the high-smelting-temperature barriers of copper and tin, formulating a useful alloy, and producing tough, edge-keeping, durable bronze objects was an accomplishment enormously more significant to society than our more-recent leap past the sound barrier.

Those who are messing about in boats today are gobsmacked by shocking expenses. They find themselves in a niche marine market with prices reaching Tiffany levels. Your backyard boatshop, however, can be an excellent source of cast-bronze hardware. Luckily, our Bronze Age ancestors have done the heavy thinking for you: with a few current upgrades, you'll be using their tools and their methods.

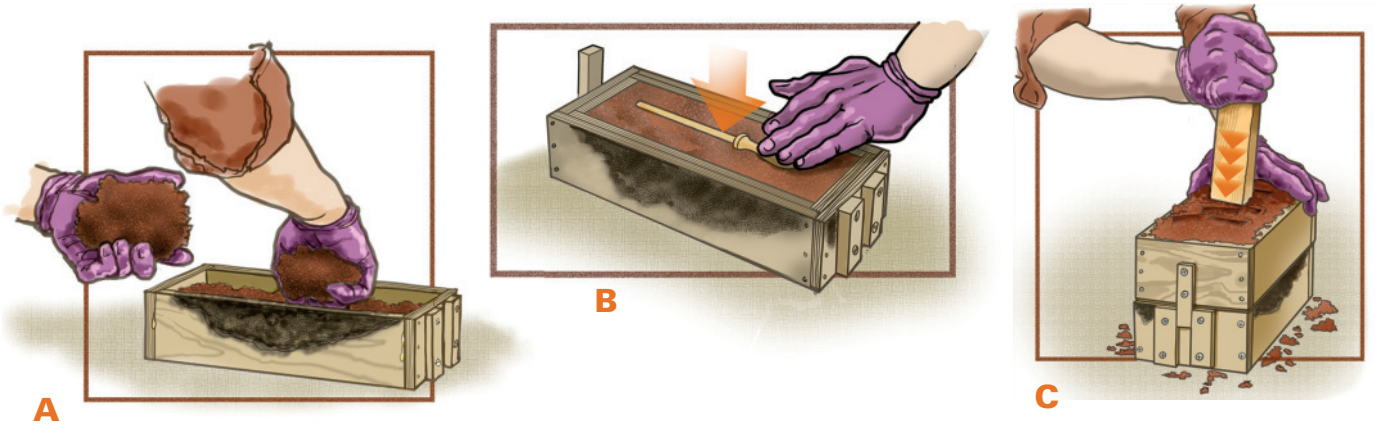
Casting bronze seems daunting. It should be. This isn't carpentry or plumbing but handling toxic materials at extremely high temperature. (For those uncomfortable with diving into such projects, watch for classes—WoodenBoat School runs one-week classes in bronze casting and blacksmithing fairly regularly, as do other schools.) The risk of spills, accidents, fumes, and even minor blowups are not trivial. Acting as your prudent grandmother, *WoodenBoat* beseeches you to guard against injury by working mindfully with maximum protections.



Clay and bronze were developed together. Pottery-firing kilns were the laboratories of high temperatures, and tough clay molds shaped around wooden patterns were early *flasks*—molds into which molten bronze was poured. Clay molding flasks could be cast in multiples and broken to retrieve the casting, or they could be reusable, their halves bound tightly together to form a *parting line*—the plane that separates the halves of a flask.



Potters developed temperature-durable material—*refractory clays*—to make fire brick for kilns and, later, crucibles to hold molten metals. Elevated temperatures were reached by using charcoal. The development of charcoal was a technical achievement in itself, created by "burning" conical ricks of wood in clay- and grass-sealed mounds (in Britain called *cracks*) that excluded most oxygen. This selective burning drove out water and volatile elements, leaving relatively pure carbon. Using a forced draft, charcoal produced temperatures that allowed metallurgy and blacksmithing, 2,190°F to 2,820°F (1,200°C to 1,550°C).



The mechanical process of casting is remarkably simple: shape a hole in the sand and pour in molten metal. We're going to glorify this only slightly. We'll use especially faithful sand—Permabond, a chemical compound—and a two-part upper and lower frame traditionally called a *flask*. The upper flask is called a *cope*, the lower is a *drag*. You can buy iron flasks, but we'll use tough little frames of single- or double-thick plywood glued and nailed or screwed together. The ends have projecting stubs on the cope or the drag, or both, to assure the flask registers properly. Fill the drag (bottom) with Permabond and tamp it firmly in place, A. Scrape the surface flush and smooth with a wooden edge. Press the *pattern* (your wooden model of the shape to be cast) halfway into the casting sand, B, so that the flush surface of the drag becomes the *parting line*, the plane at which two halves of the pattern will meet. With the pattern in place, attach the

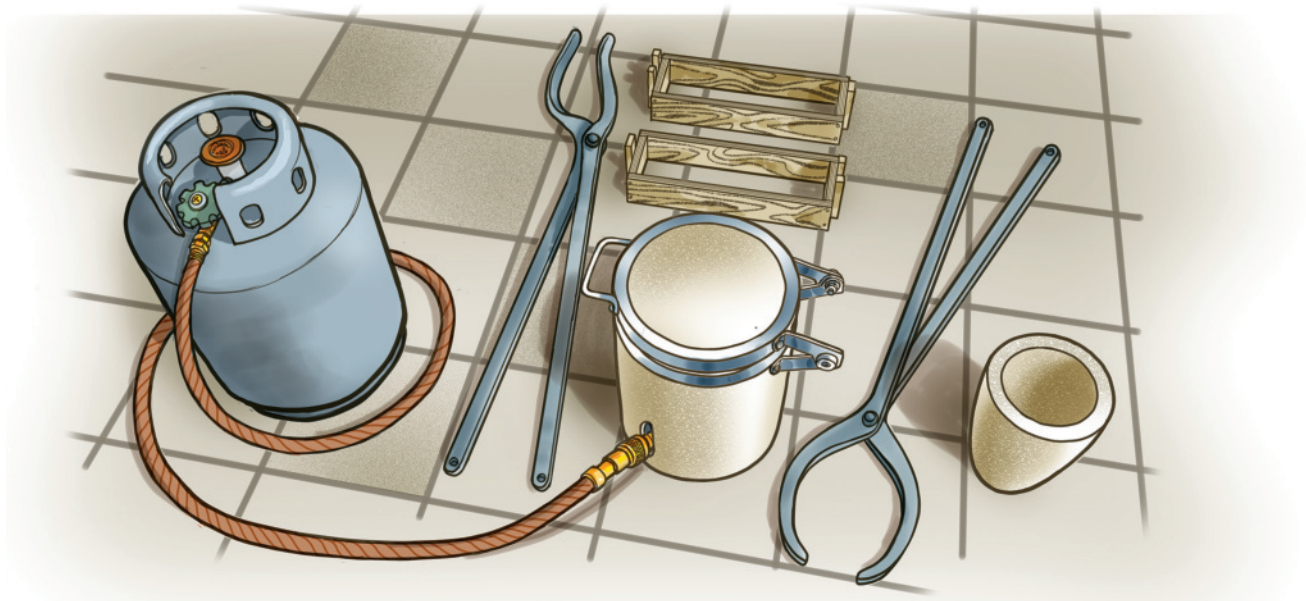
Regard the expense, labor, and work of gathering casting equipment against the high price of bronze hardware. If you can build a working skill in casting hardware to your own designs, you will justify the balance in only a few pours a year, and you will have a satisfaction rare in our era: custom hardware created specifically to your needs, your boat, your level of finish.

Take special care in choosing the outdoor venue for your casting. The intense heat and near certainty of spills and thrown flecks of molten metal will irremediably scar porch or walkway concrete, will destroy plants, and can ignite grass fires. The fumes thrown out by molten metal are dangerously toxic. Unprotected people and pets must be kept at a sensible distance.

Our Skills correspondent, Kevin Carney of The Apprenticeshop in Rockland, Maine, favors Permabond casting sand, though there are others. A propane-fired kiln, small compared to a pottery kiln, is efficient and reliable. You can source sand, kiln, tongs, crucibles, and safety gear at PMC Supplies (pmcsupplies.com), among others . Many casting supplies are available on Amazon.

Wooden casting flasks are simple shop builds and are reuseable. Note that we picture our plywood flasks with scorched sides, as battered veterans. Permabond itself can be recycled, save for the black and blasted sand around a casting. Dispose of the carbonized sand and reuse what you can.

Traditionally, patternmakers for foundries were considered the elite of woodworkers, producing pristine hardwood patterns of remarkably accurate dimensions



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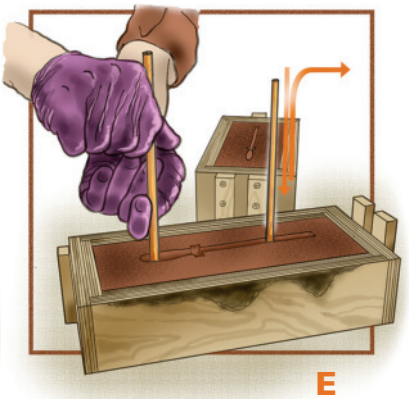

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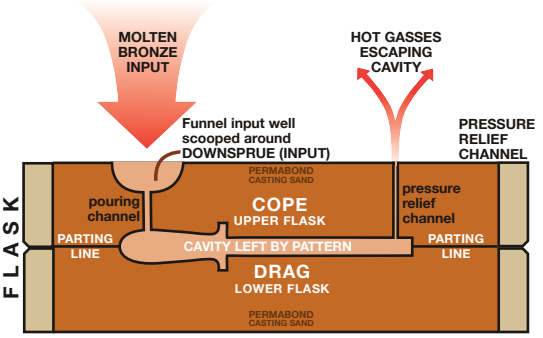
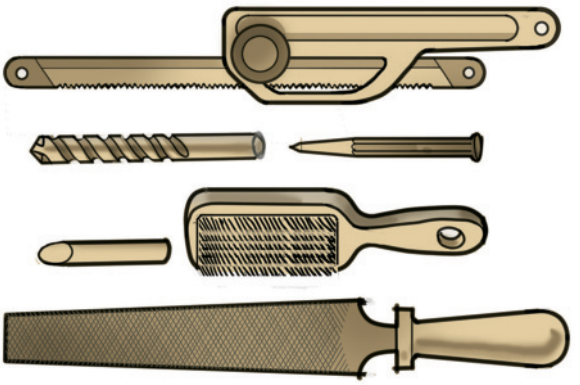


F

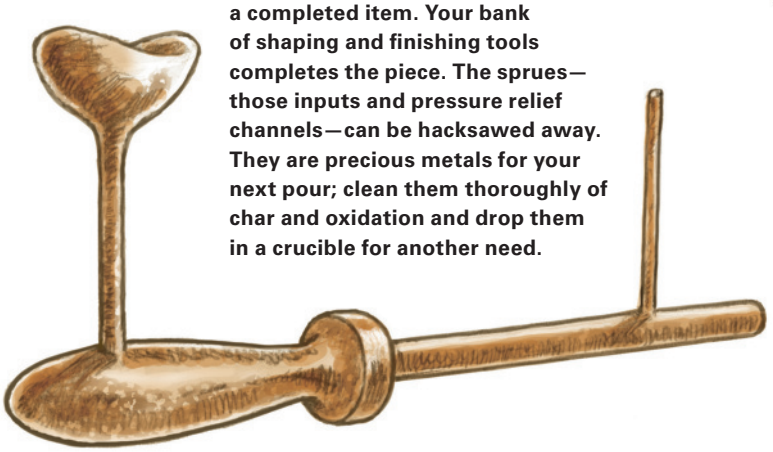
empty cope (upper) to the bottom, registered by its studs. Dust lightly with parting compound, then fill it with more Permabond, and tamp it firmly using the end of a wooden block, C. How firmly? You're on your own, here: explore, experiment, do it more than once, find your way. Now lift the cope gently up and away from the drag, D, and delicately turn it over on a flat surface. Retrieve the wooden pattern from the casting sand. Twist a brass tube out of the thickest part of the shaped cavity in the cope (upper) flask to create a channel, E, the *insprue* (molten bronze input). Toward the other end of the cavity, twist through a *pressure relief sprue* that will vent hot gasses out of the cavity when the molten metal flows, allowing a complete shape to form. Carefully replace the cope on the drag, registered with stubs, and dig a sand funnel around the upper surface insprue as a generous entry for the molten bronze, F.

Before the pour, get your ducks in neat rows. Clear the deck all around, especially between metal furnace and flask. Put your crucible tongs in easy reach. Check your personal safety equipment. Don't do this alone, and dry-run through the steps with bystanders. Set a fire extinguisher within easy reach. Monitor the metal temperature with a radiant heat meter. Good luck.

that allowed for shrinkage as the poured metal cooled, many of which were articulated to use in several parts. Our casting pattern example is a single, lathe-turned belaying pin. Your casting patterns may need simple utility over extraordinary accuracy, but your skills will build. Your patterns may be fudged—smoothed and filled with spackle or epoxy, or whatever is within your skill set. You may use a dowel in place of a turned shaft or a repurposed plastic collar as a pattern part. The fidelity of Permabond will allow you to cast seashells as drawer pulls with stump-fitted backs to be drilled and tapped for attachment. Knowing a bit about casting changes your perception of what you may be able to do: you can create castings with precise voids to fit boom ends or through spars. It's a new arrow for your quiver of creation.

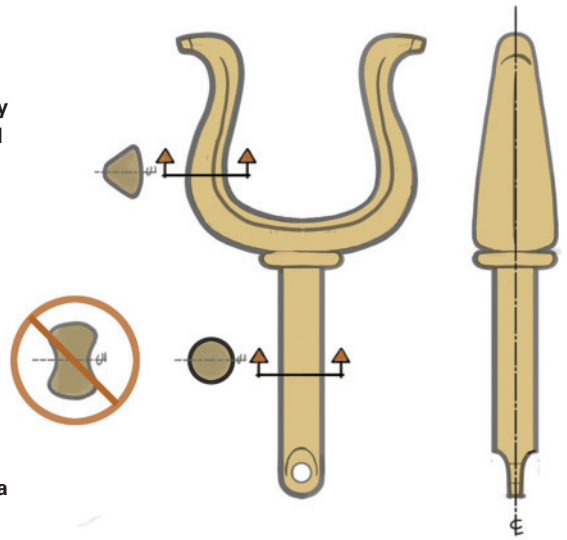


A suite of files and *rifflers* (small shaped files) will erase evidence of a parting line and clean up details. Bronze is a ductile material; before you work it, load your file teeth with simple blackboard or sidewalk chalk to prevent buildup of bronze flakes compressed in the crannies of the tooth interstices that will degrade file efficiency. Use a fine wire *file brush* frequently to refresh the file, followed by more chalk. You will find it easier to mark a pattern with a divot rather than trust the molding process to reproduce clean through-holes. Use a marking punch and a fresh drill bit in a sturdy drill press to ensure a proper hole. Several grades of sandpaper and a dressed buffing wheel will present you with a shining example of custom hardware.



Your pour is done, the mold has cooled, but what emerges is not a completed item. Your bank of shaping and finishing tools completes the piece. The sprues—those inputs and pressure relief channels—can be hacksawed away. They are precious metals for your next pour; clean them thoroughly of char and oxidation and drop them in a crucible for another need.

Belaying pins are just dandy, but what might you need in the hardware line? By now you can grasp the principles of a working pattern and the rigors of a bronze pour. Your reach is limited only by your creativity and ambition. Let's posit that you want an oversized oarlock to manage a long sculling oar over the stern of your boat. You can project the size of sweep and its diameter at the transom and estimate the height you need. Will it be an open or a closed oarlock—a closed O or an open U? Your pattern will demand a fine-grained wood easily worked. You may choose to drill the bottom of an upper block and glue in a smooth dowel as the oarlock's pin, scooping out the lowest end to a flat, where you'll mark the place for a drilled through-hole with a divot. The one principle of casting you can't compromise is what foundries call *draft*, which is the receding angle from the parting line that allows a pattern to be extracted. The impression in the cope and the drag (upper and lower) needn't be symmetrical (in our case it is) but it can't feature a cross section that traps casting sand between the pattern side and the parting line (lower left example). Your sculling oarlock can be fanciful and distinctive without violating that draft principle.



This is a classic pose for an antique foundry man, balancing his heavy crucible's weight along iron tongs braced against his upper thigh. In our case, we've protected this antique worker with some contemporary safety equipment that you *must* use to shield yourself during a pour. The addition of a heavy canvas hat would be welcome. Below that a robust face shield; not a thin film to dodge tablesaw flecks but a thick transparent shield against molten bronze. Our workman has wrapped a large bandana around his neck. He's wearing a heavy twill or canvas shirt, tough bib-front denims, and a braw leather apron to armor himself. He's wearing welder's gauntlets almost to the elbows. Once you've seen a splash of molten metal, you'll wish you had shoulder-length gauntlets. Around his lower legs and over his shoes, this foundryman has tied fireproof leggings. No bedroom slippers, his footgear consists of heavy workboots with steel toes (which you should wear in the boatyard, anyway). Prepare yourself thoroughly so you can concentrate on the work at hand.

Want to Learn More?

WoodenBoat's membership site, Mastering Skills, is a treasury of videos, books, and articles dedicated to teaching—and inspiring—students of wooden boat building. To view the trailer for our videos on small-shop power tools, scan the QR code at left, or visit skills.woodenboat.com/videos/sand-casting-marine-hardware-and-other-useful-skills.

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Making Lumber from Logs

A chainsaw mill helps control quality—and cost

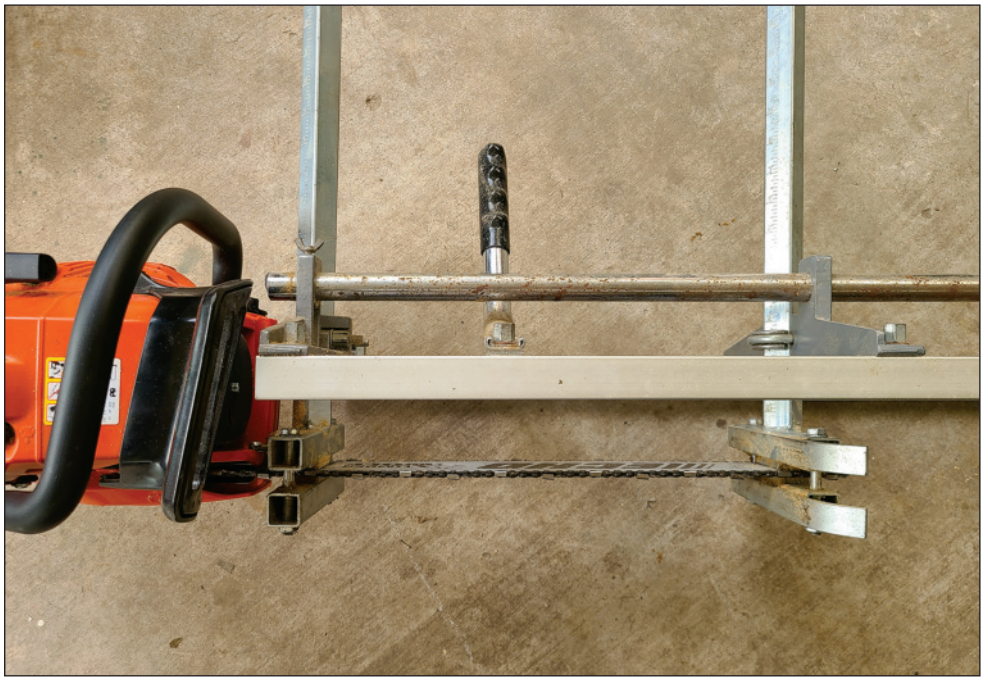
Text and photographs by Neil Sand

For as long as wooden boats have existed, those who build and maintain them have grappled with the cost and availability of suitable lumber. Although modern craftsmen have access to a vast selection of wood, price and selection of this vital resource have fluctuated significantly in recent years. Disruptions in the harvesting, processing, and shipment of lumber are often reflected in its cost, which is felt most acutely by the consumer. Furthermore, shipping and unreliable quality control at the sawmill can create issues for a project before it even starts.

Do-it-yourself chainsaw milling offers a potential solution to these issues by enabling the production of lumber directly from logs using minimal equipment. Chainsaw mills are removable attachments that mount on the bar of a typical chainsaw to act as a cutting guide. These devices transform the saw into a miniature sawmill that can be used to make uniform cuts on felled trees or logs in the field. With the right tools and techniques, boatbuilders can produce custom lumber from local trees for a fraction of the cost of purchasing it. By being involved from start to finish, the boatbuilder also retains complete control over the dimensions, grain orientation, and quality of the lumber produced.

Far too often, large oak or pine trees felled during landscaping are chopped into dozens of pieces no more than 2′ long. A straight, solid trunk of excellent timber can be transformed into wood chips or firewood in an afternoon. In my home state of Louisiana, I frequently witness live-oak trees being cut up and hauled away after they are downed or damaged by storms. A homeowner will often remove trees that are perceived as a threat to the house, a nuisance to a landscaping scheme, or an obstacle to renovation. Owners of rural wooded property are sometimes open to having single trees harvested from their land for fair payment. Trees

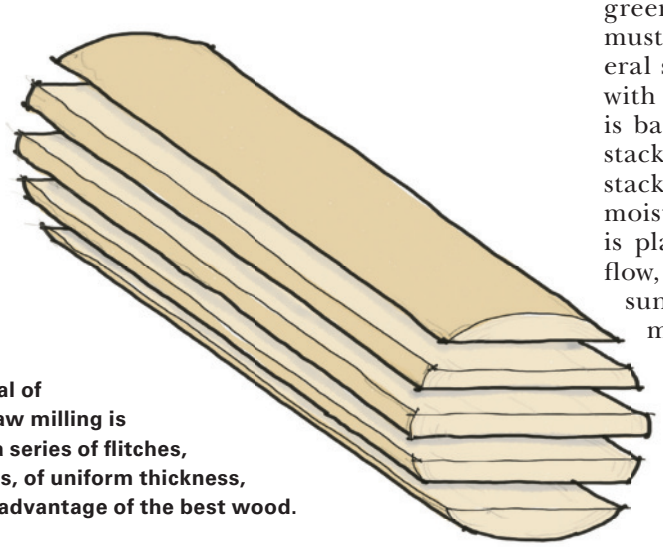
***Above*—A chainsaw mill allows a boatbuilder not only to take advantage of wood that might otherwise be wasted but also to control how the wood is cut.**



Various chainsaw milling attachments are available, and they are designed to clamp onto the saw's bar. For most uses, a 20" bar is suitable.

cut down through any of these circumstances have grown at a natural pace, so they often produce wood with better properties and fewer defects than plantation-grown trees. Processing this wood into planks, frames, or dimensional lumber for wooden boat projects represents a far better use of a natural resource than mulch or firewood. Furthermore, the cost of chainsaw-milling one's own lumber is significantly lower than purchasing it. Even if the wood being processed is commercially available, the price per board foot at a mill or lumber-supply store will far exceed what can be achieved with a cheap log and an inexpensive milling attachment.

While coveted tropical hardwoods such as teak and mahogany are not likely to be found growing in a suburban front yard, North America is home to an excellent selection of useful boatbuilding species. In the Northwest, prized spar and planking softwoods such as western red cedar, Douglas-fir, and spruce abound. The Southeast is home to insect-resistant bald cypress and durable live oak, the wood responsible for the "Old Ironsides" nickname given to the 1797 Navy frigate USS CONSTITUTION. Strong and stable boatbuilding hardwoods such as white oak, locust, and walnut can be found growing both in cultivation and in the wild from the Northeast to the Midwest. Finally, chainsaw milling provides the opportunity to obtain scarce or niche woods such as red mulberry and osage orange that are often unavailable from lumber suppliers.



The goal of chainsaw milling is to cut a series of flitches, or slices, of uniform thickness, taking advantage of the best wood.

Equipment and Considerations

The goal of chainsaw milling is to make a series of cuts along the length of a log to produce uniform slabs, or flitches. A chainsaw is mounted securely in a milling attachment that serves as a guide for each cut by resting on the surface of the previous one. This ensures that all milling passes on a log remain parallel and produce straight slices of wood. The attachment mounts on the bar of the chainsaw so that the saw is held level while the operator works the throttle and pushes the entire assembly along the log. Each pass along the length of the log yields a slab of wood with a thickness set by adjustment of the mill. These slices can then be further processed into lumber that aligns with the needs of a given project.

Moisture Content

Do-it-yourself lumber milling cannot be discussed without mentioning its most important caveat, which is moisture. Any freshly harvested log will produce green lumber with a high moisture content and must be dried before it can be used. There are several strategies for seasoning your own lumber, each with benefits and drawbacks. The simplest approach is basic air-drying, in which the log is sliced into a stack of slabs separated by spacers or "stickers." The stack is then allowed to dry naturally by exchanging moisture with the surrounding air. The lumber pile is placed outdoors in an open area with good airflow, ideally with a roof overhead to prevent rain and sun damage. The moisture content of the wood is monitored by a moisture meter until it reaches equilibrium with its surroundings. The primary drawback to natural air-drying is time: the general rule of thumb is one year of drying time per inch of slab thickness. External factors can significantly affect this, but it remains a slow process, nonetheless.

A rail guide system made of angle irons helps to establish a straight and flat first cut of the curved log. The rails are held in position by faceplates screwed into the ends of the log.

Kiln-drying is the natural answer to air-drying's long lead times, and it is the method of choice for many modern mills. While even small lumber kilns are priced far beyond the average woodworker's reach, there are still a few options for drying self-milled lumber this way. Local mills or woodworking shops may offer kiln-drying as a service, enabling one to have a batch of lumber dried on demand. Alternatively, a simple solar kiln can be constructed with common materials at a relatively low cost (see WB No. 182). This may be an especially attractive option for those who lack covered space to air-dry a stack of wood, because the structure can double as wood storage. While kiln drying can produce lumber with very low moisture content comparatively quickly, there are some drawbacks to consider: First, the cost of having lumber dried at a local facility can significantly reduce the savings gained by milling cheap or free logs. Building a DIY solar kiln is a lower-cost option, but it still presents a similar issue and may not be justifiable for a single log's worth of wood. Second, the artificially low moisture content achieved by kiln-drying can be detrimental for unfinished wood in the marine environment. Lumber dried this way could begin swelling after it leaves indoor storage, leading to dimensional instability during a boat's construction.

Chainsaw and Chain Selection

Naturally, the heart of any chainsaw milling apparatus is the saw itself. A mid-range chainsaw with a 20″ bar and ample power is ideal for handling most of the logs one can expect to encounter. Although milling can be performed with any bar length, the attachment points where the milling tool mounts on the saw can easily consume 3″ or more of the bar's length. This means that a minimum of 18″ is the practical limit for processing logs of decent diameter, and common small household saws with 14″ or 16″ bars are unable to cut most tree trunks.

However, small saws can still be used if the milling system is adapted to their shorter bar length. First, determine the maximum bar length the saw can accommodate; many chainsaws can work with longer bars than they are sold with. Moving up even a single size will broaden the selection of workable logs. Additionally, consider trimming the sides of the log to reduce its diameter. To determine if this technique will work, first measure the chainsaw's effective cutting width after the milling attachment is mounted. Next, measure the log's diameter at its widest point and divide by 2 to obtain radius. Multiply this radius by the square root of 2. If this number is less than the saw's cutting width, then the side-trimming method will work.

To guide the trimming cuts, inscribe a square on the end face of the log so that its corners just touch the face's edge. Be sure to select the wider end face, since most logs taper. Each side of the inscribed square will have a length equal to the log's radius multiplied by the square root of 2, the same dimension used for saw bar length comparison earlier. Align each trimming cut with one of the square's sides and make at least three passes with the mill to produce a log with three flat faces. A fourth pass will turn the log into a square beam, which is not necessary but can be helpful for stability. This technique can enable a relatively small saw to tackle logs significantly wider than the standard method allows, but it does come with a marked increase in labor.

Saw chain is another important consideration. Most chains are designed to cut across the wood grain, which is ideal for standard chainsaw duties but unsuited to milling cuts. Replacing a cross-cut chain with a ripping chain significantly improves both the efficiency of milling and the quality of the resulting slabs. Ripping chain is available from aftermarket suppliers in most common pitches and lengths.

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Milling Attachment

Chainsaw mills mount to the chainsaw bar at each end with adjustable arms that are used to set the distance between the saw bar and the main body of the mill. Because the mill's main body rides along the flat surface of the previous cut, the distance between it and the saw bar defines the thickness of the slice being cut from the log. There are a variety of milling attachments on the market, including the Alaskan Mill, a trademark for the tool made by Granberg International. All function in essentially the same way, so differences between brands typically come down to build quality. Be sure to balance maximum log size with weight when selecting an attachment.

Milling

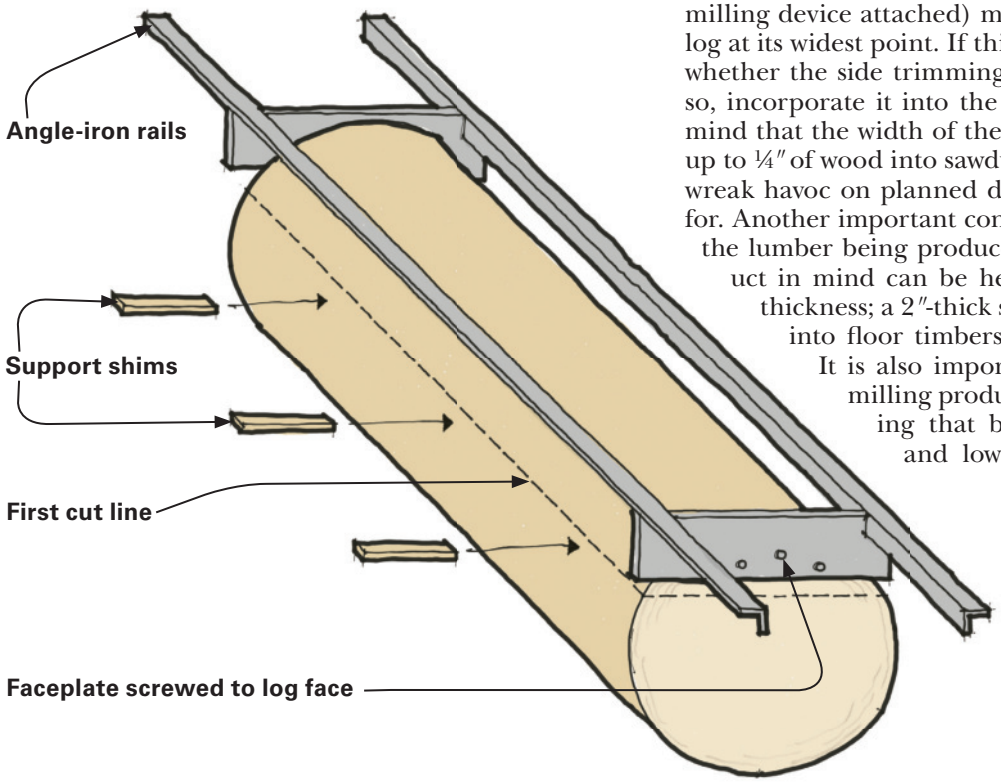
I'll focus on the example of my own recent experience milling one of several bald-cypress logs. Various repairs and renovation projects aboard my 40′ wooden ketch resulted in a near-constant demand for lumber. One particularly needy project was an ongoing galley replacement, which required a sizable amount of new wood for framing. Trips to the lumber store added up, and I soon began to feel the effects of price fluctuation and shortages in the lumber market. After learning about chainsaw milling, I decided that it was a promising method for producing the lumber I needed and began to search for suitable logs.

A few days of patient searching on local online classifieds yielded what I was after: a tree's worth of bald-cypress logs in a nearby shed. Bald cypress is one of Louisiana's natural treasures. It is a wetland native with exceptional rot and insect resistance in addition to easy workability and good strength. More than a century ago, logging in the state's vast wetlands produced untold volumes of lumber from cypress forests composed of trees well over 1,000 years old. Few of these "virgin" cypresses are known to remain; only a handful of hollow, crooked, or lightning-stunted specimens were spared. However, the legacy of bald cypress as an extremely durable wood lives on, and second- or third-growth trees can still produce excellent material.

Upon inspection, the logs proved to be even more interesting. They were the product of a fairly large tree that had been felled in roughly 6′-long sections ranging in diameter from 12″ to 16″. The seller had stored the logs for two years in his shed with the intention of using them later, but he eventually decided to sell them instead. This meant that they were already naturally air-dried, although at the cost of some moderate splitting in several pieces. At a mere $200 for seven logs, it was an excellent opportunity to obtain quality boatbuilding lumber at a deep discount. While the 6′ section length precluded the creation of hull planks or long frames, there are plenty of uses aboard for rot- and insect-resistant wood.

Making a Cutting Plan

With the logs hauled home and stored safely in a dry shed, it was time to make a cutting plan. Despite their common origin, the sections differed significantly in diameter, taper, and degree of splitting. Each one would require a unique approach, or cutting plan, to process efficiently. The cutting plan is a simple sketch or set of notes that uses the log's characteristics to define the position of each milling pass. There are various factors to account for when drafting one, the most important of which is the log's diameter. The effective cutting length of the chainsaw bar (with the milling device attached) must exceed the width of the log at its widest point. If this is not the case, determine whether the side trimming method is possible and, if so, incorporate it into the plan. Additionally, bear in mind that the width of the saw's cut, or kerf, will turn up to ¼″ of wood into sawdust with each pass. This can wreak havoc on planned dimensions if not accounted for. Another important consideration is the end use of the lumber being produced. Keeping the final product in mind can be helpful for determining slice thickness; a 2″-thick slab may be ideal for cutting into floor timbers but not for hull planking. It is also important to note that chainsaw milling produces flat-sawn lumber, meaning that boards cut from the upper and lower slices of the log (when



This drawing shows an alternative guide-rail system in which the flanges of the angle irons are inserted into slots in the faceplates to better keep them in place. Shims inserted in the kerf as the cut progresses keep the saw from binding.

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Even with one hand on the saw and the other holding the mill's grip, it can be easy to tilt the saw without noticing at the start of a cut and also at the end. The saw guide must be flat on the face of the log; here, its upward tilt to the left is clear.

viewed from its end) will be subject to certain drawbacks because of the grain structure. However, pieces cut from regions near the center will be quarter-sawn, so it may be helpful to consider what type of grain is required for the final product.

Finally, inspect the number, size, and depth of splits on the log. If the wood is green timber from a recently cut tree, checking and cracking is unlikely. Conversely, trunks that were felled and left to dry without any further processing are prone to significant checking and cracking. Cutting along large pre-existing splits can keep them from being included in the produced lumber, so aligning mill passes with them can be beneficial.

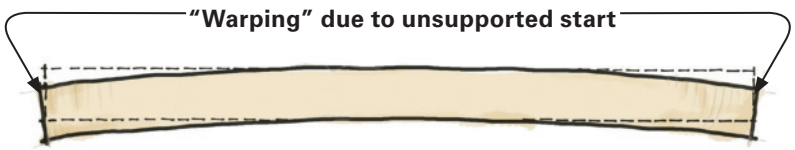
When all relevant factors have been accounted for, the cutting plan should dictate how many milling passes will be made as well as the target thickness of each slice.

After considering the needs of my ongoing projects as well as the number and size of the logs available, I selected a log measuring approximately 14″ in diameter and 5′6″ long. It would be cut into 2″-thick slices, which would then be further processed into dimensional lumber. Fortunately, my milling setup was based on a chainsaw with a 20″ bar length. Even with the milling attachment mounted, the chainsaw's effective cutting width was sufficient to process all of the cypress logs without the need for serious trimming. The only exception to this was trimming down protrusions where branches had grown from the trunk, which was minor and simple enough to be done freehand.

I planned the first cut to be made 1½″ from the top of the log. Afterward, the mill's cutting depth would be set to 2″ to produce the desired slices. However, each slice would actually consume an additional ¼″ of wood because of the chain's width. Therefore, the cutting plan called for one 1¼″ pass followed by five 2″ passes, which would leave a remainder of 1″ at the bottom of the log after cutting losses were accounted for.

Mounting the Milling Attachment

Once the cutting plan is established, the next steps are to mount the milling attachment and prepare the log for the first cut. Although designs may vary somewhat among manufacturers, chainsaw mills are generally mounted by clamping onto the saw's bar. Clamps should be positioned as close as possible to the base and end of the bar in order to maximize cutting width.



The effect of saw tilt when starting or finishing a milling pass looks like warping, and the curvature introduced by the error can be carried forward into the next pass as well.

To assure cuts that are straight and level throughout, it is best to continue using the guide rail system employed for the first cut.

Tightening the clamps can be a balancing act: If they are too loose, the mill will slide off the bar and hit the chain; if they are too tight, the clamping force could interfere with the bar's internal sprockets. Clean off any bar oil residue and increase clamping force gradually, testing for any play after each adjustment. When the full weight of the saw can be supported by the milling attachment without slipping, the clamps are probably tight enough. Just in case, be sure to monitor their position during the first cut and periodically check for loosening caused by vibration.

The First Cut

The first cut can be the most difficult. Chainsaw mills are designed to ride on a flat surface, guiding the attached saw to make a parallel cut below. To deal with the typical log's curvature, some way of getting the first cut straight and flat must be found. While freehanding the first cut is an option, mounting support rails to the log is the best way to produce a level, even surface. Some manufacturers sell such rails as an accessory, but they can be made easily and cheaply from materials readily available at hardware stores.

A simple system consisting of two pieces of angle iron supported on each end of the log by a faceplate is sufficient for most milling setups. However, it is crucial that the faceplates are properly aligned with each other and firmly secured to the log to prevent an uneven cut. The mill's cut depth should be adjusted so that the first pass travels directly beneath the rails' supporting faceplates, cutting them away from the log along with the slice of wood. Finally, it can be helpful to insert shims matching the saw chain's thickness as the cut progresses. While this may require an assistant, it can keep the weight of the rail system and mill from closing the cut behind the saw and binding the chain.

When milling my own cypress log, I used the same rail-system design to perform the first cut. The faceplates were rectangular ¾″ plywood scraps screwed into both end faces of the log, while the rails were 8′ sections of 90-degree steel angle. The faceplates were positioned as close to the top of the log as possible to minimize waste, and the rails rested on their corners. The rails' length allowed for overhang at both ends of the log, which kept the mill level while entering and exiting the cut.

Making Straight Cuts

After the first cut is completed, the following ones can be performed with relative ease. The flat surface of each pass serves as the guide for the next one without the need for rails, and the cutting depth is adjusted between passes to produce slices of the desired thickness. It's a simple system, but keeping a few things in mind will maximize the quality of the lumber produced. Avoid tilting the milling tool at the start and end of a pass. The chainsaw and attached mill can be unruly: the operator must use one hand to work the saw's trigger and the other to grip the milling attachment (usually on a provided grip). Furthermore, only part of the milling attachment rests on the log at the beginning and end of a pass, making it prone to tilting. The

Even when using a ripping chain on the saw, a rough surface finish is common with wood cut by a chainsaw. It's important to leave extra material to allow finishing to the dimensions needed for the lumber's intended use.

combination of these conditions can leave the operator unaware of a slight tilt in the milling device as the cut proceeds. Once the device is fully supported by the log's flat surface, the tilt is eliminated and the cut becomes level again. The same problem can appear at the end of the cut. While this may be imperceptible to the operator, the result becomes apparent after the slice is cut. Curvature induced by the angled start and eventual correction manifests as a "warp" in the slice that significantly reduces its usefulness.

To prevent this problem, consider using a different grip on the milling tool that will keep it in good contact with the log's flat face. Having a helper to hold the mill or work the saw's throttle can also be helpful. Alternatively, the rail system used for first cuts can be adapted to provide a supported start for normal cuts.

Refining Slabs

After all the slabs are milled, the resulting log slices, or flitches, have to be further processed to be ready for use. If the log was green timber when sawn, then it should first be air- or kiln-dried. Unless the side-trimming method was used, each slab will have live edges and fairly rough surfaces. For the best wood, with no sapwood, those live edges must be trimmed off. It's best to square off the ends, also, and plane or sand the faces. Beyond that, the type and extent of processing depends on the use intended for the lumber.

For my galley project, I cut cypress pieces by ripping each 2″-thick finished slab along its length on a tablesaw to make 2″ and 3″ widths, then trimmed them to eliminate surface roughness left over from milling.

Once the flitches are cut, they can be further milled to the desired dimensions. The author used a tablesaw to rip his cypress flitches into pieces of the dimensions he needed for new galley framing in his 40′ ketch.

The log described here produced about 40 bd ft of useful lumber. Including the purchase of a common chainsaw mill and ripping chain, the cost per board foot was $4.71, compared to about $9 per bd ft from my go-to lumber retailer. This was an exceptional savings, which only improved with more uses of the machine. The resulting wood was as good, or better than, commercially available cypress in my area.

Chainsaw milling is an excellent way to acquire quality lumber. Serious savings, access to uncommon species, and a greater degree of control over the finished product are only a few of the benefits. After all, who wouldn't want to know exactly where each piece of wood on their boat came from?

Neil Sand dove into the world of sailing as a college student and quickly developed a passion for sailboats. He enjoys restoring and sailing old boats on Lake Pontchartrain, Louisiana.

Aboard: WESTERN FLYER

PAUL MOLYNEAUX

An inspiration once again

Text by Paul Molyneaux · Photographs by Peter Lyons

In 2019, I walked into the Port Townsend (Washington) Shipwrights Co-op to interview co-owner Tim Lee. I found myself standing next to the bow of a large wooden fishing vessel, and glancing at her, I turned and noticed a length of white tape on the weathered stem, with the words "WESTERN FLYER" hand-written on it.

"Is this...?"

"That's it," Tim said. She was the very boat that the author John Steinbeck and the biologist Ed Ricketts chartered for their legendary voyage to the Sea of Cortez in 1940.

I touched the plumb stem that had cut through the long Pacific swells and probed the harbors and estuaries of the sea between Baja California and the mainland of Mexico. In the waters that the undersea explorer Jacques Cousteau later called "the aquarium of the world," Steinbeck and Ricketts studied the rich biology and documented their findings in a book published in 1941, republished as *The Log from the Sea of Cortez* in 1951. But the scientific voyage was a mere six-week interlude in WESTERN FLYER's life of commercial fishing. She had had hundreds of crew members who were unknown, unremarked upon, mostly forgotten.

Built in 1937 by Western Boat Building Company in Tacoma, Washington, WESTERN FLYER was a relatively new sardine seiner working out of Monterey, California, when Steinbeck chartered her. She and her captain returned to fishing after the research voyage.

Sold and resold, and renamed GEMINI in 1970, she was used as far north as Alaska in a variety of fisheries. She hit a reef and sank off Ketchikan in 1971 but was raised and repaired. By the early 2000s, most wooden-hulled fish boats were long gone, including her sister ships, and the aging WESTERN FLYER appeared ready to follow. After sinking (twice) in Swinomish Channel near Anacortes, Washington, she was raised in January 2013 after six months on the bottom and taken to Port Townsend (see Currents, WB No. 243). It was there that John Gregg, who had been inspired early in life by

***Above*—WESTERN FLYER makes a run out of Moss Landing, California, the day after her triumphant return to Monterey. After a nine-year, $7-million restoration, the 77′ former purse seiner that once carried John Steinbeck and his friend Ed Ricketts to the Sea of Cortez will return to research work under the auspices of the WESTERN FLYER Foundation.**

the Steinbeck and Ricketts adventure, stepped in and bought the hulk for restoration as a full-time research and education vessel, based in Monterey, that would trade on her earlier fame.

Gregg established the WESTERN FLYER Foundation and raised money and interest for what became an eight-year project to restore the boat. The Shipwrights Co-op rebuilt the hull under the leadership of Chris Chase. Tim Lee and his crew got down to the dirty business of replacing frames, centerline structure (with the exception of that stem), and planking. Today, little of the original hull remains, but above deck the wheelhouse and cabin retain almost all the wood that went into them in 1937. With the boat rebuilt and painted white and green, as she was when first launched, her original name was restored. After relaunching, she was towed to Snow & Company in the Ballard neighborhood of Seattle, to be repowered.

Capt. Paul Tate took WESTERN FLYER south on her maiden voyage, arriving at Moss Landing on Monterey Bay on October 7, 2023, after a rough passage. On November 4, he took the boat the last 15 miles home to Monterey, with flags flying and her deck crowded with supporters. Among the crowd waiting to greet her was Joe Petrich, a boatbuilder and designer whose family founded and owned Western Boat Building. "My family built it," he said as Capt. Tate maneuvered the 77′ boat to her berth. "It's very moving to see it, knowing my father might have bent some of the original planks.... I didn't realize what the boat meant to people until I was down in Monterey on vacation with my family sometime in the '80s and I saw a picture of it... They said it was the most famous boat in Monterey."

When I saw WESTERN FLYER in Port Townsend, the hair rose on the back of my neck. I'd read almost every book Steinbeck wrote. He immortalized the Monterey waterfront in Cannery Row of 1945, and in the late 1970s I lived a similar lifestyle at Moss Landing. The night of her arrival in Monterey, I stayed aboard and slept in one of the original bunks. When Capt. Tate went ashore for a bit the next morning, I found myself briefly with the boat all to myself and took my time to explore it in detail. Later, Capt. Tate told me that work to install the research equipment was continuing: "We hope to be back down to the Sea of Cortez by spring of 2025," he said, 85 years after her famous voyage. I've crossed paths with WESTERN FLYER three times since her reconstruction began, and I hope the next time I'll see her with her decks crowded with students following the example of Steinbeck and Ricketts.

Fittings for a new purpose

For the Port Townsend Shipwrights Co-op in Port Townsend, Washington, the WESTERN FLYER's restoration project was a labor of love. While the intention was to relaunch her as she was when she first touched the water in 1937, some modifications were made. For example, the new skylight and companionway provide light and access to the laboratory occupying the space that once held the catch of sardines and squid.

A tradition of luck

In his book *The Log from the Sea of Cortez*, Steinbeck mentions "deer horns" on the mast of the WESTERN FLYER and many other boats. The tradition came from Sicily, he was told. The antlers bring good luck, though no one knows why. Regardless, they seem to have worked well for WESTERN FLYER.

Nod to original wood

Artisans at Ventana Surfboards and Supplies in Santa Cruz, California, crafted a turtle from wood taken from WESTERN FLYER and inlaid it in the boat's deck. Steinbeck wrote of the boat's crew killing a turtle during the 1940 voyage. As he told it, the turtle died a long, hard death: even with the head chopped off, it kept moving, and the heart beat for hours afterward. Efforts to cook the meat failed, as did an attempt to save the shell. Regretfully, they threw it all back into the sea, and their remorse echoes through Steinbeck's book.

PAUL MOLYNEAUX

A blend of new and old

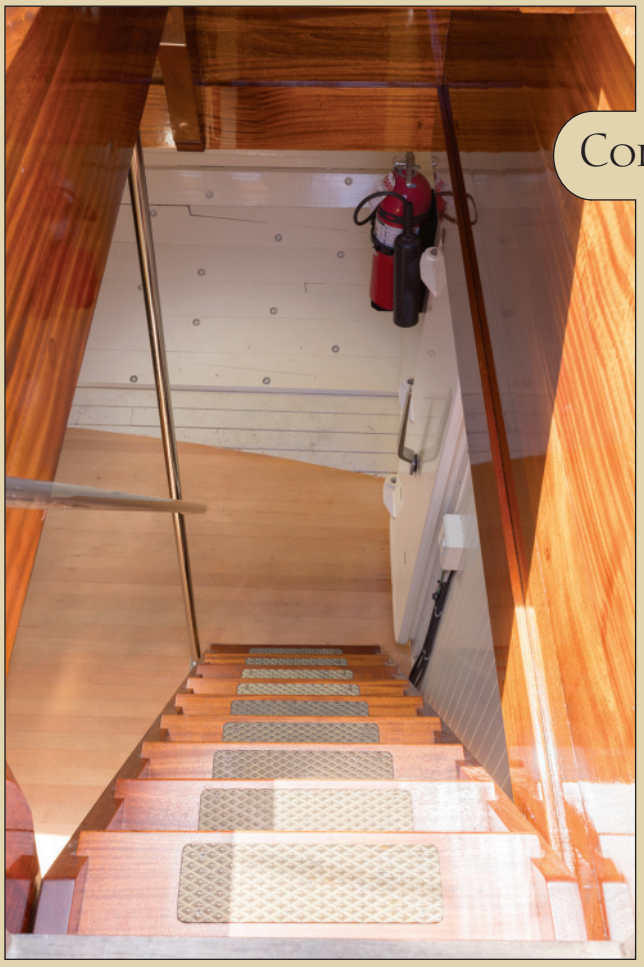
The round portlights and surrounding woodwork of the wheelhouse are all original, but the wheel is not. The original wheel installed by Western Boatbuilding in 1937 came up for auction during the reconstruction, but John Gregg, the founder of WESTERN FLYER Foundation, chose not to bid on it, instead using a classic eight-spoke wheel built by John Hastie & Co. Ltd., in Greenock, Scotland. In 2022, Gregg had the boat towed to Snow & Company in Seattle, Washington, where their crew installed the power train and all-new systems, including the wheel, a hydraulic steering system, autopilot, jog lever, and all the Furuno electronics and system monitors.

Where conversations flowed

Aside from a plywood-and-epoxy roof and restored finishes on the table and woodwork, the galley has changed little in 87 years. The Shipwright's Co-op crew carefully removed the cabin and set it down on a support structure exactly shaped to the sheer and dimensions of the boat's deck. While one team replaced almost every piece of wood in the hull, the cabin team carefully removed all the wood, cleaned it, and put it back in place, resulting in a cabin made almost completely of the same materials that once resonated with the voices of Steinbeck, Ricketts, and the rest of the most famous WESTERN FLYER crew.

A startling find

On a fascinating turn of luck, project manager Chris Chase found an Olympic diesel stove that exactly matches one known to have been used in Steinbeck's day. Chase found the replacement in a Montgomery Ward department store in Portland, Oregon, in mint condition and still stored on its original shipping pallet, along with the owner's manual. The starboard side of the galley, while full of original wood, has equipment unheard of in 1937. The sink and faucets provide pressurized hot and cold running water. The Vitrigo model-DW combined refrigerator and freezer runs on 120v AC power, as does the hot-water heater.



Companionway access below

The biggest transformation in WESTERN FLYER's restoration came belowdecks, not only in hull reconstruction but in repurposing the boat from commercial fishing to research. For most of the boat's life, the crew climbed down into the hold by removing the hatch cover and descending a vertical ladder; researchers now can access the lab safely and easily via a companionway.

Ample laboratory work space

During their six-week cruise to the Sea of Cortez, Steinbeck and Ricketts conducted their sampling and specimen-preservation work on an improvised table on deck as well as sometimes taking over the galley. With the fishhold rebuilt as a laboratory, researchers on WESTERN FLYER can operate in safety and relative comfort deeper in the hull, where the roll of the long, narrow hull will be a little less snappy. Chris Chase built the 3′ × 10′ mahogany table, which is topped by a paper-and-resin material called Richlite.

A fishhold no longer

Looking forward in the laboratory, a watertight door provides access to the engineroom to starboard. A Seabird flow-through seawater sensor is mounted on the port side of the bulkhead. A Headhunter Sting Ray saltwater pressure system provides seawater for science work on deck as well as for the fire suppression system. WESTERN FLYER's original registration number and tonnage are carved into a principal deckbeam. A young craftsman, Lachlan Carlson, built the skylight and other fittings.

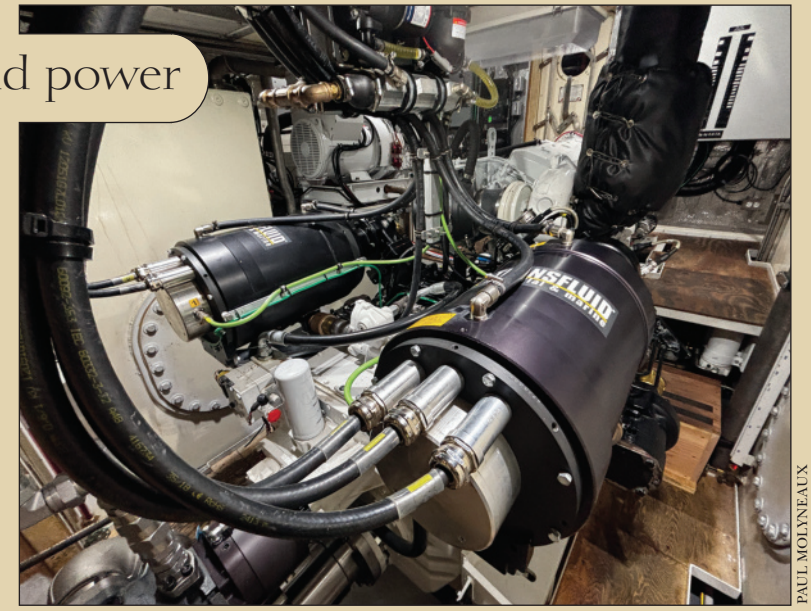
PAUL MOLYNEAUX

New steam-bent frames

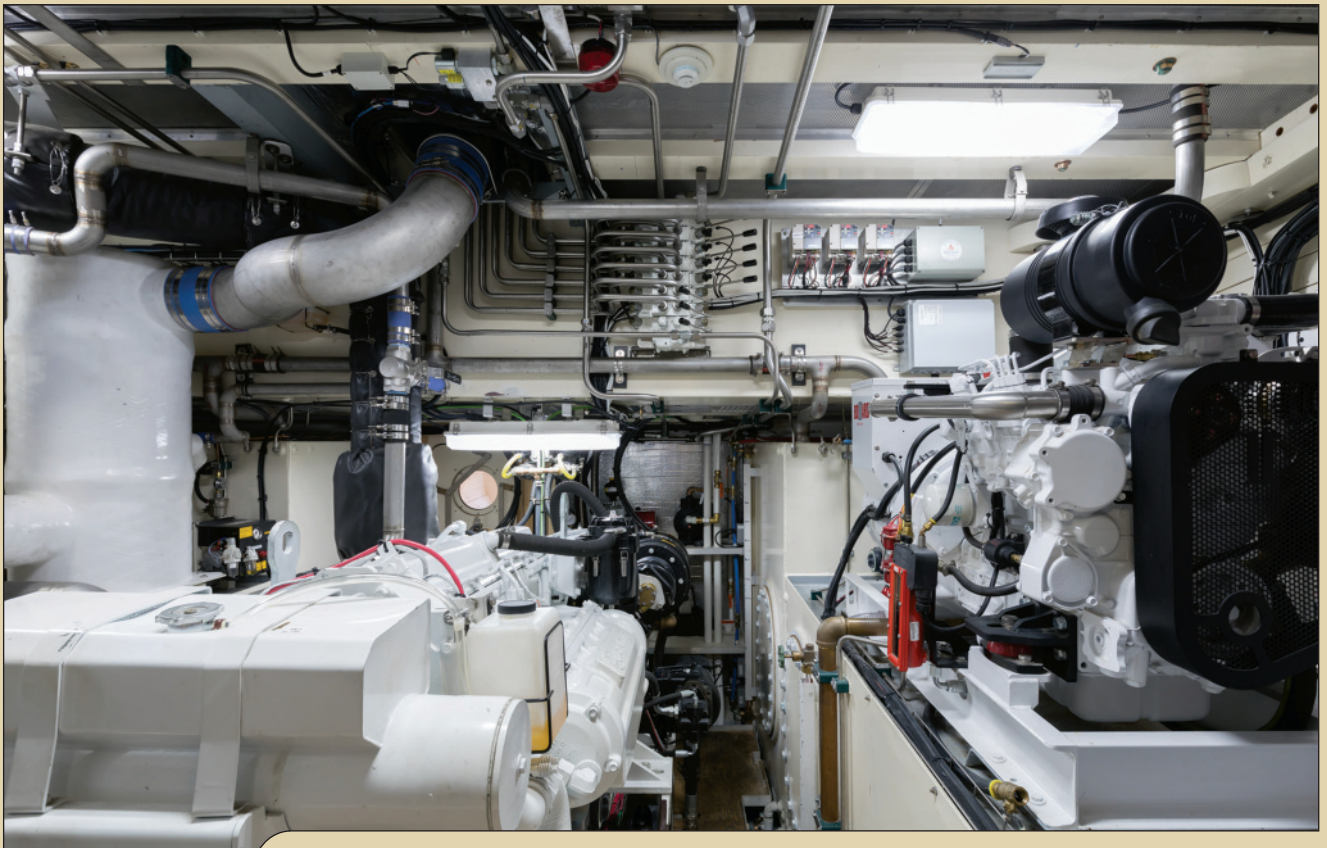
When rebuilding WESTERN FLYER, Chase could not find white oak in the size and quality needed for 62 pairs of steam-bent frames that needed to be replaced. Such wood was abundant during the early-20th-century boatbuilding boom in the Pacific Northwest but scarce by the early 21st century. Chase found substitute wood on the campus of Berea College in central Kentucky, where he harvested 14 white oaks, using horses to twitch the logs out. The logs yielded 150, 18′ × 4″ × 3″ frame blanks, which were shipped to Port Townsend and kept in a humid container until they could be steamed and bent into place.

Hybrid power

The Transfluid hybrid electric system is sandwiched between the engine and the 6:1 Twin Disc reduction gear. The engine can run power through the Transfluid gear to the Twin Disc gear or the Transfluid gear can grab the shaft and run it off two 50kW electric motors drawing on six Transfluid lithium-iron-phosphate batteries, which weigh a total of 3,000 lbs. When the diesel engine is running, the electric motors can be used to recharge the batteries. The idea behind the electric system is that it will enable the vessel to stay on station for as long as six hours, using the almost silent electric motors.



PAUL MOLYNEAUX



Up-to-date diesel engine

WESTERN FLYER's original 160-hp six-cylinder Atlas engine was long gone when the vessel arrived at Snow & Company in Seattle for repowering. Chase said it had been replaced with a Caterpillar engine in about 1951 and other engines later. "We took a Detroit 12-71 out, and from what we know, that was one of four 12-71s that had been in the boat since the 1960s," Chase said. The new engine is a John Deere 6135 AFM85, turbocharged in-line six-cylinder delivering 425 hp; a Bollard Marathon 28kW genset is seen here on the right.

Watertight decks

As boat design transitioned from the Age of Sail to steam to diesel, many boats retained the long, narrow form of sailing vessels: WESTERN FLYER is such a boat, at 77′ LOA with a beam of 20′ and draft of 8′2″. With a length-to-beam ratio of close to 4:1, she could be propelled easily with comparatively little horsepower. In the reconstruction, the deck and cabin roof were built of plywood sheathed with fiberglass cloth set in epoxy, which will prevent leaks that could damage computers and sensitive equipment. The deck has two layers of sheathing topped by 1″-thick planks of Douglas-fir.

On the Bay

A dream realized and a blast from the past, WESTERN FLYER runs on Monterey Bay 87 years after joining the fishing fleet there. But where the heavy boom of the old purse seiner once held a big Puretic power block for hauling in its net, the boom will be used to launch and recover an ROV that will be used to explore and sample the bottom at great depths. WESTERN FLYER will no longer pursue fish but instead be a fisher of data and information, continuing Steinbeck and Rickett's mission of understanding the ocean and the life it holds.

In his youth, Paul Molyneaux read just about everything Steinbeck had written. Paul lived and worked in Moss Landing, California, in the late 1970s, going fishing aboard wooden boats and experiencing the Cannery Row lifestyle, some of which is documented in his book, The Doryman's Reflection.

A Masthead Wind Pennant

Simplicity makes for easy repair

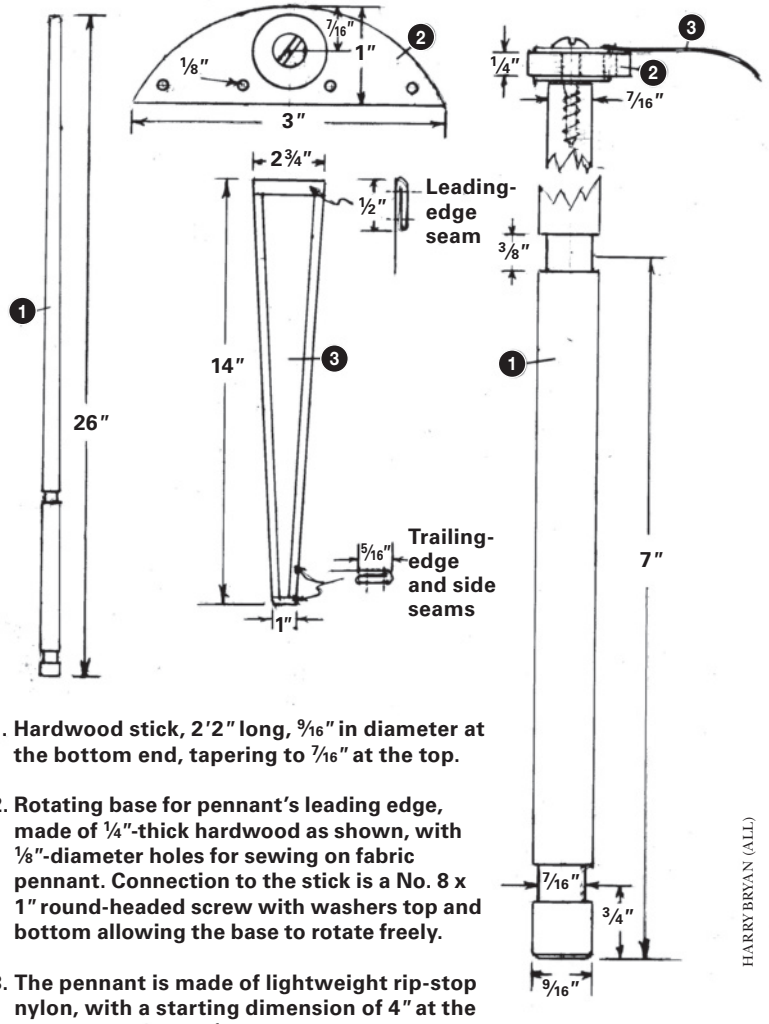
by Harry Bryan

In order to sail safely and efficiently, a sailor needs to know the direction of the wind relative to his boat. A dinghy sailor will find sufficient information in the ripples on the water or in the flutter along the luff of the sails. The skipper of a larger craft needs more precise information, particularly when the wind is dead astern, where a miscalculation can result in an unexpected jibe.

There are numerous devices that indicate relative wind information, and each of us seems to have a favorite. These wind indicators vary in complexity from a piece of yarn tied to a shroud to an electronic windvane connected to a readout near the helm.

Over 30 years ago, when our family sailed to Australia from New Brunswick, I had the opportunity to assess the equipment of some of our fellow voyagers to see, after thousands of miles, which devices stood up to the rigors of long-distance cruising and which ones had either failed or were not as useful as hoped. The sailing aid that seemed to fail most often was the masthead wind indicator. Usually, the problem was in the electronics that allowed the wind direction and speed to be displayed in the cockpit.

The wind pennant presented here, and detailed in the construction drawing, is a design that has proven itself on three boats I have owned over the course of more than 50 years. Two features in particular recommend it. The first is that it is easy to make and therefore easy to repair. The second is that, unlike most pennants, its leading edge is horizontal, an orientation that allows the light rip-stop fabric to catch the lightest breeze. Also, it is less likely than a traditional pennant to foul on its staff, even when damp with rain or fog. A pennant flown horizontally will, in a zephyr, give a clear indication of increasing wind speed as the fabric lifts away from its staff but before it begins to flap. I find this most useful when looking from shore and trying to decide if there is enough wind for a sail.



HARRY BRYAN (ALL)

1. Hardwood stick, 2′2″ long, 9/16″ in diameter at the bottom end, tapering to 7/16″ at the top.

2. Rotating base for pennant's leading edge, made of ¼″-thick hardwood as shown, with ⅛″-diameter holes for sewing on fabric pennant. Connection to the stick is a No. 8 x 1″ round-headed screw with washers top and bottom allowing the base to rotate freely.

3. The pennant is made of lightweight rip-stop nylon, with a starting dimension of 4″ at the leading edge and 2¼″ at the trailing edge, with a length of 15⅝″. With hemmed seams, the finished dimensions are 2¾″ at the leading edge, 1″ at the trailing edge, and 14″ long.

Harry Bryan, a WoodenBoat *contributing editor, lives and works off the grid in New Brunswick. For more information, contact Bryan Boatbuilding, 329 Mascarene Rd., Letete, NB, E5C 2P6, Canada; 506–755–2486.*

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ERIN TOKARZ; (INSET) THE APPRENTICESHOP

A Half-Century of Learning

The flowering of wooden boat building education

by Tom Jackson

In the 1960s and early ’70s, anyone fascinated by traditional boatbuilding or small-craft design soon found that resources were few. It was a restless generation, one that resisted conventionalism; these people were unlikely to line up for job-training programs geared toward the needs of industrial shipyards, and for many the thought of fiberglass hull layup held little appeal. But it was also a time of rediscovery, especially of traditional skills and the work of artisans—organic gardening, roots music, craft beer, handcrafted furniture, simple living. Amid this renaissance, wooden boatbuilding was a compelling and unique combination of head and hand skills, and there was real beauty in it. But without relatives or a community directly involved in boats, there seemed no entry, no clear path, no place to go.

Suddenly, like the greening of spring, fresh shoots appeared. In 1972, Lance Lee opened his first Apprenticeshop in Bath, Maine. Jon Wilson founded *WoodenBoat* magazine in 1974, exactly 50 years ago as of this current issue. Two years later, Dick and Colleen Wagner opened The Center for Wooden Boats in Seattle, Washington, with a livery of small boats and an emphasis on hands-on learning that inspired many others. The Antique & Classic Boat Society was founded in 1975, the Wooden Canoe Heritage Association followed in 1979, and WoodenBoat School opened in 1981. The list goes on.

***Top*—The Apprenticeshop in Rockland, Maine, this year completed its largest project yet, a multiyear reconstruction of a Dublin Bay 24 sloop for an Irish client. *Inset*—Lance Lee, at the oars, founded The Apprenticeshop in 1972 with a philosophy of using boatbuilding to build character.**

THE APPRENTICESHOP

Lance Lee (at center on the far side of the boat) felt that The Apprenticeshop was not a vocational program but rather served as a model that he hoped would be widely influential in clearing a path for people who would be "chasing their souls."

Good ideas spread quickly. In the half-century that has passed since those days, wooden boat building education programs have proliferated across the United States and around the world. People saw ways to reconnect with the water by rowing, paddling, sailing, and otherwise propelling themselves along neglected shorelines. With this came renewed appreciation for craftsmanship and a rededication to its preservation. If skills could be saved, worthy boats could be saved.

Today, a wealth of choices awaits anyone who wants to learn to build, maintain, or restore wooden boats. One- and two-week avocational courses such as those at WoodenBoat School serve those who don't necessarily want to pursue a career. But for those who do, institutions such as The Landing School, The Northwest School of Wooden Boat Building, the IYRS School of Technology and Trades, and others have largely supplanted the boatyard apprenticeship system of earlier generations. The programs have adapted as boatbuilding itself changed, adding courses as wood-epoxy composites came to dominate new-boat construction, lavish restorations targeted pedigreed classic yachts, and new companies arose to take advantage of CNC machines to market a wide range of boats to home builders. In the early 1970s, the lapstrake Whitehall pulling boats of the 19th century held outsized importance as a touchstone; we're a long way from Whitehalls now.

Hippies with Ambition

Ray Speck and Pat Mahon seem to have lived parallel lives. In the 1960s, Ray was a self-described California hippie who moved to Sausalito, and Pat drove out of Arizona in a Volkswagen van and developed an interest in woodworking and later in boatbuilding. Both ended up going to England to seek out traditional boatbuilders. Both worked in boatyards there and ended up much later living in Port Townsend, Washington, where both have been boatbuilding instructors at the Northwest School. Pat was also the leading instructor at the Great Lakes Boat Building School in Michigan.

"I built a houseboat and we took it down to Sausalito, and I was smitten by traditional boats down there," Ray said. "We sold the house, and we went to England ostensibly to find a boat. I ended up working in a yard," in Whitby in the northeast. "They were two guys, and they were building a 36′ power fish boat," launching her in just seven weeks after laying the keel. "So I just basically swept the floor and watched, and then I helped a bit." At the same time, he was asking questions, observing, drawing sketches. "They really had the dance down. On Day 1, these big wide slabs of oak were up on the road, and by the end of the day the backbone pieces were laid up and rabbets cut. They moved right along." When he returned to Sausalito, the cachet of having worked alongside honest-to-goodness English shipwrights led to more opportunities: "They thought I knew more than I did because I had worked with these guys.... There was a bunch of us hippies living for free, squatting on the waterfront."

***Below left*—Dick Wagner discovered Seattle, Washington, while traveling after college. He and his wife, Colleen, were captivated by Lake Union's history and place in the city. They founded a small-craft livery with traditional boats at Colleen's boathouse. *Below right*—In 1976, Dick and Colleen moved their fleet to south Lake Union at their founding of The Center for Wooden Boats, with a floating boatshop of Dick's design; the center has grown to include another floating building and a pavilion and an education building ashore.**

COURTESY OF THE CENTER FOR WOODEN BOATS (BOTH)

ELIZABETH BECKER

NARAYAN MAHON

Typical of wooden boat builders in the 1960s and early 1970s, Ray Speck (left) and Pat Mahon (right, in blue cap) started out sweeping sawdust in English boatyards and picked up skills along the way. Fifty years later, both live in Port Townsend, Washington, and both have been teachers at the Northwest School of Wooden Boat Building. Pat has also taught at the Great Lakes Boat Building School in Michigan and WoodenBoat School in Brooklin, Maine.

Hippies with a purpose and ambition. They clustered around Don Arques, who later endowed the boatbuilding school that now carries his name in Sausalito. "He was a fount of knowledge," Ray said. Someone would ask about some particular technique, "and that would circulate. He would find out from Donny, and it was, 'Oh, this is how they did it.' And these old boatbuilders from town, they'd teach somebody, or say something to somebody, and within a day or two, everybody had heard that."

Pat was in his early 20s when he walked into the Tough Brothers boatyard in Teddington on the River Thames west of London, where an 80′ motoryacht was nearing completion and a 120-footer was starting up. "Being the new hire, and also being a Yankee I think, I got all the dirty jobs, which I didn't mind—I actually liked it a lot. I did a lot of sweeping and cleaning. I also kind of became the shop foreman's helper. He always needed somebody to hold the dumb end of a board, so that was kind of my job." He stayed a year before moving on to the U.S. East Coast, eventually finding boatyard work at Hodgdon Brothers in East Boothbay, Maine, and later farther east at Penobscot Boat Works in Rockport and Lee's Boat Shop in Rockland, where Øistein "Lee" Lie-Nielsen was then building the 92′ cold-molded yacht WHITEHAWK. "Those guys I was working with were like 75, and I was in my early 20s. Mainers are not real forthcoming with information. They were pretty recalcitrant guys." He learned by observation.

Sweeping floors was also how Walt Ansel, the current director of the Henry B. duPont Preservation Shipyard at Mystic Seaport Museum in Connecticut, started out. "The first thing I did was pump out the boats and sweep up the chips and clean the shop out—that's what I started doing at a very young age," at a time when his father, Willits, formerly a teacher, worked at the museum shipyard. "The old gang of blue-collar fellows were the main labor force in the yard," he said. All were shipyard veterans of the World War II war effort, the last big boom in commercial wooden vessel construction. "They were tough, but they would kind of take you under their wing.

"Gradually, the younger generation of back-to-the-land people came in, many of them college-educated," Walt said. "They changed the flavor of the place quite a bit, and as the old blue-collar guys retired or sadly passed away, then it got kind of left in the hands of the back-to-the-landers, or sometimes we'd call them hippies."

ERIN TOKARZ

At The Apprenticeshop, traditional boatbuilding remains a core part of the program, regardless of what changes have occurred in professional boatbuilding over 50 years. This is an Abaco boat under construction in mid-2024, inspired by Lance Lee's affinity for the type.

WOODENBOAT SCHOOL

At WoodenBoat School, one- and two-week courses focus on specific skills and boats, such as this restoration of a Herreshoff 12½, which spanned multiple seasons. Many students return as alumni year after year to enhance their skills.

The workplace apprenticeship system in the United States was never as formal as it was in Europe, Walt said. "The person that showed the talent and had the visual, spatial skills and was handy with tools got taken off painting boats and got turned into a boat carpenter or shipwright, and then was sort of self-taught, really." Today, the Mystic shipyard often hires IYRS graduates and also has an internship program for them. It helps that Walt, who worked as a commercial fisherman and boatbuilder after college but has spent most of his working life at the shipyard, was, for a while, a full-time instructor at IYRS. "I have this fantasy," he said, "of starting kind of a graduate wooden ship building program here for people that have come out of school or have yard experience but haven't worked on bigger ships and want to."

Lance Lee, too, started young and without formal training. "I started out by watching boatbuilders." That was in the Bahamas, with everything from dinghies to 50-footers. "I would sit on stacks of yellow pine and just watch. And kids soak up an awful lot. I went to work in a boatyard when I was 11, five-and-a-half days a week, and of course I was the low man on the totem pole."

He and his brother went on to sail a 30-footer from the Bahamas to their native Cape Cod to set up a charter operation; later, Lance went to Bowdoin College in Maine. After military service, he hitchhiked widely in Europe and the Levant. He ended up working for the first Outward Bound School in Wales in 1966, where he sailed 26′ luggers with students. More important, he became a disciple of the German educator Kurt Hahn, who founded the program and whose philosophy—a term unlikely to have fallen easily on the ears of an earlier generation of shipwrights, no matter how highly skilled—carried over into The Apprenticeshop's approach.

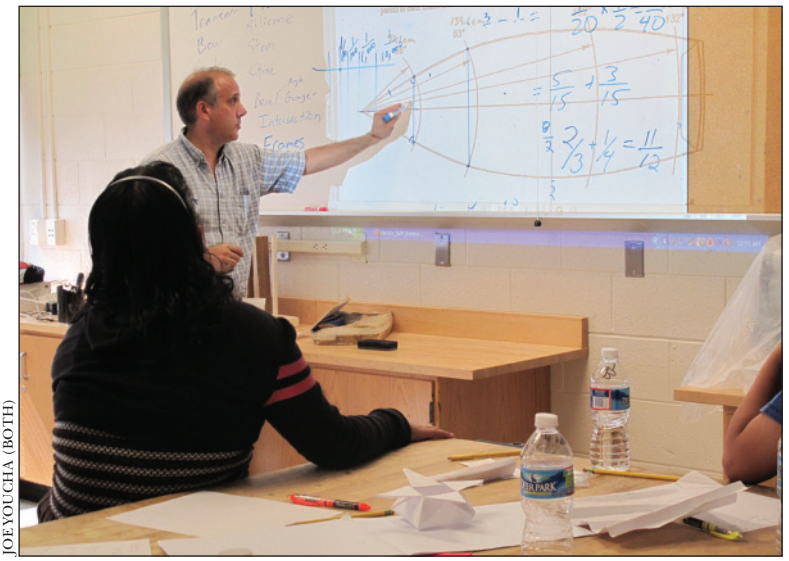
With its emphasis on craftsmanship, lifestyle, community, and an almost spiritual sense of the value of skill, The Apprenticeshop was far from the job-training programs then available, and so were its successors.

"I think what we're doing is building citizens," Lance said. "They are not to become boatbuilders. They're to become mature, capable, with inner strength, and are chasing their souls. Some don't like that. I do. And I got a fair amount of it from Kurt Hahn."

The Apprenticeshop seemed to resonate with the times, with a magnetic attraction for like-minded people. It became highly influential. Lance explained it in a question-and-answer format article in *The WoodenBoat*, as it was then known, in issue No. 4 in 1975 (the questioner was never identified). In 1977, The American Heritage Society's *Americana* magazine published an article with a compelling cover photograph that helped to introduce the school to an even broader audience. Its concepts, and its implied critique of one-sizes-fits-all education, began to spread.

NORTHWEST SCHOOL OF WOODEN BOAT BUILDING

The Northwest School of Wooden Boat Building started in Port Townsend, Washington, in 1981 with Seattle boatbuilder Bob Prothero, a co-founder, as the lead instructor. It moved to its current site on the waterfront of nearby Port Hadlock in 2004.



JOE YOUCHA (BOTH)

Joe Youcha, who had considered a career in boat design, instead took to teaching, first at the Alexandria Seaport Foundation, where he eventually became the director, and later founding Building to Teach and the Teaching With Small Boats Alliance.

Head and Hand Work

One indicator of how things have changed over the half-century since the founding of *WoodenBoat*, and a little more than a half-century since The Apprenticeshop opened in 1972, is to look at how many boatbuilding educators working today started off in one boatbuilding program or another:

- Isabella Feracci, director of The Apprenticeshop, and Kevin Carney, the longtime lead instructor, are both graduates of that school's two-year program.
- Jake Greiner, a graduate of The Landing School in Kennebunk, Maine, is now the lead wooden boatbuilding instructor there.
- Sean Koomen went from Minnesota to the Northwest School of Wooden Boat Building, where he is now the lead instructor, and Betsy Davis, the school's director, is a veteran of a boatbuilding program at Seattle Central Community College, where she restored her power cruiser GLORYBE (see WB No. 187) during the course.
- Eric Stockinger, before coming to WoodenBoat School as director in 2021, was the director at The Apprenticeshop, whose program he completed after college when he was in his 20s.
- Josh Anderson, executive director and formerly lead boatbuilder at The Center for Wooden Boats, is an Apprenticeshop alumnus.
- Warren Barker, the senior instructor at IYRS, graduated from Williams College, worked as a house carpenter for a while, then went to work with the naval architect Bill Peterson in South Bristol, Maine. Later, he worked with Eric Goetz in Rhode Island on high-end composite racing sailboats, and then he went out on his own as a boatbuilder. He started teaching by helping his cousin, Harry Bryan, at WoodenBoat School in 1987 and has taught summer classes there ever since. When an opening came up for a full-time teacher at IYRS, he got the job.

There is another element of boatbuilding education—call it boatbuilding with a social purpose—that has attracted uniquely suited individuals. For one example, Joe Youcha, who founded Building to Teach, discovered that boatbuilding was an excellent vehicle for teaching math to students who weren't well-suited to standard classroom instruction. He had worked 18 years for the Alexandria Seaport Foundation, first for three years as co-founder and director of the boatbuilding school and then as the foundation's executive director. And for another, Adam Green, who founded Rocking the Boat in The Bronx, New York, found boatbuilding a way to do all of that plus bring a sense of teamwork, community, and pride to the city's poorest borough—and now the program is expanding to San Francisco, California (see Currents, page 12). Like most of these boatbuilding educators, Joe and Adam both graduated from college. Joe studied history at Columbia University after bailing out of the University of Michigan naval architecture program. Adam majored in American culture at Vassar College.

Who could have predicted any of this? These career paths are not the type of straight-line progressions that parents might plot out for their promising children. The twists and turns could have led just about anywhere. What unites them?

The answer comes in listening to them:

Warren Barker: "I was supposed to go to Wall Street or something with that fancy degree. Right out of college, I didn't know what the hell to do.... I needed to make something I could hold onto. I had this super education, but it was missing something. I got tired of

ROCKING THE BOAT

Rocking the Boat, founded by Adam Green in New York City, uses boatbuilding education as a vehicle to build skills, community, and teamwork in the chronically underserved borough of The Bronx.

NORTHWEST SCHOOL OF WOODEN BOAT BUILDING (BOTH)

The first boat launched at the Northwest School of Wooden Boat Building was a small working tugboat built on commission for an owner who wanted a replica of a boat that had been used for many years by his family. A close relationship has developed between the school and the marine trades concentrated in Port Townsend.

the abstract." He built a boat with his father after graduation; before long, he was working in a boatyard.

Jake Greiner: "I graduated from Skidmore College with a degree in music, which I had no desire to really pursue as a career," but he found a metalworking program in the art school captivating; people were making things. "I think that what drew me to the metalworking and then subsequently to boatbuilding is that music is definitely creating something, but the creation is ephemeral. With metalworking and then boatbuilding, when you're done, you have a tangible object.... My parents were at The WoodenBoat Show in Mystic one year, and they were like, 'Hey, we saw this really cool-looking school up in Maine.'" That was The Landing School. "So I came and visited and was sort of blown away."

Eric Stockinger: "I got interested when I was a teenager because I wanted a kayak and I couldn't afford one. So I wanted to build one. I eventually landed at The Apprenticeshop. I'd gone to college, I'd done some stuff; I worked at REI, but I just kept coming back to the fact that I really wanted to do this. I went to The Apprenticeshop as a student for two years and then stayed on just because I liked what they were doing."

Josh Anderson: "I'd already graduated from Boston University with a business degree. But I had worked in the trades all through high school and college. I was trying to figure out what I wanted to do, and it just so happened that my great-grandfather lived in Owls Head [Maine]. I had gone to Rockland and Owls Head forever as a kid, and, honestly, I was just sitting in the Dunkin Donuts across the street from The Apprenticeshop and saw all these people carrying a canoe out. I looked it up, and it was like, 'Oh, if I have to learn a trade, I should go learn boatbuilding."

Sean Koomen: "I knew I wanted to be a boatbuilder. I had already tried to start my career in late high school. I started building just out of [Dynamite] Payson's books, and then in college [in Minnesota] I got grant money to start a boatbuilding business, and I quickly learned, 'Oh, I don't really know what I'm doing.'" He found the Northwest School via *WoodenBoat*'s pages, and after college graduation he enrolled, sight unseen. He later worked at Rutherford's Boatshop in Richmond, California, and Brooklin Boat Yard in Maine before becoming an instructor at the Northwest School.

Kevin Carney: "I just knew that I was really interested in boats and in woodworking and working with my hands," and then he heard about The Apprenticeshop. "And that seemed like a good place to kind of put all that together."

Isabella Feracci: "I was interested in building things and thought I might study sculpture." A relative encouraged her to consider The Apprenticeshop, reasoning, as many do, that if she could build a boat she could build anything. "So I came by here and poked my head in the door and thought, 'Oh my gosh, I need to understand what I'm looking at.' I had no idea that I would go into the industry. That wasn't even a thought I had. It was just about learning how to build things in an immediate way. You're not going to sit in the classroom and talk about it, you're going to start immediately." She continued her education at the Center for Furniture Craftsmanship up the road in Rockport, then had her own furniture shop and worked for Rockport Marine before returning to The Apprenticeshop as the director.

The Northwest School's program still emphasizes traditional plank-on-frame boatbuilding as a way of teaching foundational skills that can be widely applied, no matter what career path a student takes.

Adam Green: "I kind of felt that learning by sitting in a classroom was just not working for me." In a semester off from college in 1995, he volunteered to lead an East Harlem school class in building an 8′ pram. "It gave me a sense of purpose and that I can put my energy into something and actually see results, and I can learn things or teach other people to learn things, like ruler reading, that aren't just conceptual but are actually being put in to practice. And if you don't do it right, there's a result."

COURTESY OF IYRS (ALL)

The IYRS School of Technology and Trades focuses on traditional boatbuilding skills as essential to the restoration of classic boats. The students start with Beetle Cats, but other projects come in, too. This N.G. Herreshoff 15' sailing tender COLONIA, built in 1928, is one example: its owners had owned it for 15 years, stored outdoors (top left), and approached the school about taking it on as a project. Warren Barker, the lead instructor, recognized it as a rare boat and agreed to take it on. The project involved building a new boat referring to the old boat (above left) for exact methods used; the boat's hardware and butternut toerails were reused. COLONIA was rebuilt by second-year students over the course of an academic year, relaunched in 2020 (above right), and then returned to her owners, who now sail her out of Middletown, Rhode Island.

Joe Youcha: "What I've learned about myself is that I need to see what I've done at the end of the day. And that can be building something, that can be writing, that be a lot of things. But I need the reward that building—in a very broad definition—that building brings. Otherwise, I wonder, 'What the hell am I doing?'"

Fundamentals

From the beginning, Lance Lee did not conceive his Apprenticeshop program as job training for boatbuilders. "It was kind of a great environment for kids to go and search for their soul," he said. "My intent is to impel people to set up apprentice programs in their backyard, their bedroom, a museum, an art building, a storefront. Don't clone The Apprenticeshop. Adapt it, adapt it to metal, to clay, to glass, to tap dancing—but be active. The thing I would most like to see happen—I use the word impel—impel us, our kids, our communities, our educational system, to set in motion adaptations of apprenticing."

Warren Barker at IYRS also is careful to hedge against the program as a straight-out job training program. "I have to promise these people that come here—I am pretty up-front about it—that you might never get another shot at doing a boat like the one you're going to do here. But what you learn while you're doing it will be really transferable. You'll be a wanted commodity, because you can deal with the weird spaces and curved lines and all of these different things."

Joe Youcha was even more blunt for his program serving disadvantaged youth in Alexandria, Virginia: "The last thing I would ever want—and people hate me when I say this—when I was running the Alexandria Seaport Foundation, especially the apprenticeship program, was for any of those kids to become boatbuilders. I wanted them to be union carpenters, or union sheet-metal workers, or union electricians," with good pay and benefits right away. "I guess one way to look at it is, what's the objective of building the boat? And the objective, for us, wasn't to teach boatbuilding. The objective was to build the person."

At The Apprenticeshop, much has changed in more than 50 years of operation, but very little has changed in the core philosophy of the program. "We are committed to traditional plank-on-frame wooden boat construction and are not going down these other roads, because we think that this set of skills is so important for character development, for preserving that or carrying

THE LANDING SCHOOL

Lately, boatbuilding schools have been adding technology-based programs, notably involving systems. At The Landing School, a yacht design program has been incorporated into the training.

forward the tradition that is this rewarding and enriching way of being in the world," Isabella Feracci said. The feedback from boatyards that have hired Apprenticeshop graduates is that "people who can think through and do traditional boatbuilding, whether or not that is how the yards are doing it, are incredibly valuable employees."

At IYRS, which has branched out its programs, as many schools have, traditional construction remains important for the skills needed in restoring classic boats. At The Landing School, wooden boat programs in relatively large cold-molded boats and another in small, traditionally built boats are being consolidated into one that does both. Jake Greiner said that it will continue with some level of traditional construction. "I've noticed that the students are sort of two types: They want a career, so they want to know how to build a modern wooden boat. But there's also that romantic element of building a traditional wooden boat, plus this fact that those skills are also critical for the restoration side of things. They're not necessarily mutually exclusive—sometimes it's in the same person."

Numerous instructors also argued that such skills as lofting add immeasurably to understanding lines plans and blueprints, even as boatyards turn to CNC-cutting, especially for hull setup molds.

They also uniformly believe that boatbuilding, at whatever level, is a fun way to learn skills.

A Change of Watch

All of these instructors see something of themselves in their students. The new arrivals often express an interest in building something tangible, something that involves fundamental principles and has a purpose, something that requires a combination of intelligence and hand skills. Although many of these programs have changed over the years—most notably with the introduction of cold-molded construction and, more recently, courses in installing the increasingly complicated systems that boat owners are demanding—they stress a grounding in traditional skills.

THE LANDING SCHOOL

Although modern boatbuilding is an important component of The Landing School's courses, lead instructor Jake Greiner—like leaders in most programs focusing on wooden boats—keeps traditional small-boat construction in the lineup. He argues that it grounds students in fundamental skills and also is necessary for understanding traditional construction as a part of restoration work that might come up in a career.

It's unlikely, Kevin Carney said, that graduates will move on to traditional construction, because "fewer and fewer yards are doing that."

But, in a strange way, the students of today are a familiar echo of their forebears. Not a day goes by without an article about the punishing cost of higher education and the burden of student debt. Lance Lee, for example, said that when he went to Bowdoin College his tuition was $800 a year; his son went there in recent years at a cost of $72,000 a year. That's not only a disincentive to higher education but also to creative work that can make for a highly rewarding life yet risks having to climb on some treadmill to make payments on a huge debt.

The current generation also deals with the loss of direct connection to the world because of the seduction of virtual experience, the endless scrolling of devices, the sitting at desks in front of screens, and on top of that a pandemic that scrambled their day-to-day networks.

"There's just such a strong demand for people to work with their hands," said Josh Anderson, whose facility is just across a busy road from one of the centers of Seattle's booming tech industry. "I see it a lot, because a lot of these people are from the tech industry, and they're in computers or coding or whatever they're doing all day long. It's not tangible. There's no shortage of people who just want to work with their hands."

Avocational boatbuilding classes can fill that void for many. "I think it's a launchpad for people who come and say, I'm 20-something or early 30s, I've been sitting in front of a desk my whole life, so my body wants me to make something with my hands," Eric Stockinger

said. "We're getting a lot more of these young people, all these digital natives who are in their 20s—so many of them are just so desperate to actually create something real. And if you're an at-home woodworker, one of the zenith projects in your dream somewhere is a small boat."

Jake Greiner at The Landing School pointed out that his students are trending younger now than they were even a decade ago. "We're seeing a lot more students coming right out of high school," he said. "In the two years I've been here, the first year the median age for my program was probably 30. Last year it was probably 19. As a child of the '80s and '90s, I think there was a really strong push away from any blue-collar work; you had to go to college and get a white-collar job. I think we're starting to see maybe a swing in the other direction now, that there's a place for everybody.

Recent students, he said, "are here because they want to do something that's meaningful, where they feel like they've accomplished something at the end of the day. There's still something just inherently satisfying about wooden boats. Seeing that craftsmanship, that stack of lumber you've turned into a boat or a part of a boat, is deeply satisfying for people."

Warren Barker at IYRS also said he was seeing a decrease in the age of students, with the 2023–24 season the youngest class, on average, he has experienced so far.

There are some common traits in the new flock of students, these teachers said. They come in the door often with less basic tool knowledge than their predecessors—which can be an advantage, since they're more open to being schooled in fundamentals. Hand skills don't seem to be passed down parent-to-child as much as in previous times. The students can seem less willing to work long hours—which Jake Greiner sees as a healthy sense of work-life balance.

Above all, the teachers battle the distractions of online devices and their widespread fallout. "They're so tech-oriented, but they're also sick of it," Warren Barker said. "I battle against the phone all the time." At the same time, "I can empathize with these students. They're sort of thrashing around wondering which direction to go," reminiscent of his own experience. "It seems like you have to prod them a lot more, and longer. But I think a lot of them want to make something tangible."

Betsy Davis said, "This education is teaching people a whole way of working in the world, a whole set of skills that can be applied to boatbuilding or housebuilding or instrument-making or any other trade where they're working with their hands. They get a deep experience that helps them navigate the rest of their lives in a different way."

Some students expect learning to be fast, at digital speed, Sean Koomen said. "The work ethic has changed,

***Below left*—The Center for Wooden Boats opened a new building on shore devoted to education, whether for building traditional boats, restoring boats of the livery fleet, or classes in building plywood-epoxy kit boats. *Below right*—Cold-molded construction is one of the many one- and two-week courses at WoodenBoat School in Brooklin, Maine.**

THE CENTER FOR WOODEN BOATS

WOODENBOAT SCHOOL

WOODENBOAT SCHOOL

What all boatbuilding education students seem to have in common is a hunger to create something tangible. One of the notable boats of WoodenBoat School is BELFORD GRAY, a Friendship sloop built by students over the course of numerous summers and now part of the sail-training fleet. (Her tender is a Joel White–designed plywood-epoxy Shellback Dinghy, and in the distance are a Mackinaw boat that is part of the school's fleet, and, partly obscured, a privately owned Crotch Island pinky.

and so it's harder for these people to follow through. I think part of that is that they're seeing online everything. But boatbuilding remains the same. It takes a lot of time to learn. It's complicated. It's hard. It's one of those skills that you just can't get in a video or certainly master in a video. They think, 'If I go to school, I'll leave a master.' And then we remind them that when they go to school, they'll leave an apprentice."

Kevin Carney believes that with time The Apprenticeshop's type of education will become more relevant, not less, "as people become more digitized and more solely focused on media and things like that. We've seen it come and go in waves, and I think we'll probably keep seeing that. At some point, some of those people will say, 'What the hell am I doing?' If they see a group of people completely engaged in what they're doing it's like, 'Oh, maybe I should try this out,'" especially in a post-Covid world where collaborative effort needs to be relearned by an entire generation. Isabella Feracci said, "I think people are already feeling that we have gone very far in this technological direction that has distanced people from working with their hands and their bodies and their minds all together."

Onward

Where does it come from, this fascination with boats and how they work, how they are put together, and where they might take someone? Some experience in youth, a spark whose glow is never forgotten, unique to each person. One book leads to another; sets of plans are rolled up in the corner; seeking leads to finding, then to further searching.

"I think there are always going to be young people that'll be captured by it, which for me is really encouraging," Walt Ansel said. "We're very concerned about passing the torch on to people that are knowledgeable and really will be able to take care of these vessels that we have stewarded for so many years. We worry about them a lot, but I think they're going to be in good hands."

"I've been just so encouraged by what I see down at the port these days," Ray Speck said over coffee at the Northwest Maritime Center. Plus, "A lot of the home builders here in Port Townsend, the ones doing the higher-end, stuff, they're all boat-school grads."

"A lot of yards now, they'll ask you what school you went to, where did you get your training?" Pat Mahon said. "They don't wany somebody just off the street, like we were."

"They're a whole new generation," Ray said. "And they're almost like a throwback to the '60s, the '70s in some ways. They're their own people, for sure, but as far as the level of work and commitment and the passion for doing things right, the creativity—that's really encouraging."

It may not be history repeating itself, but it is an echo that certainly rhymes. That pathway that didn't seem to exist has been cleared, and it beckons.

Tom Jackson is WoodenBoat*'s senior editor.*

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WoodenBoat ***Magazine proudly announces the winners of the 2024 Concours d'Elegance***

SAILBOATS

Professionally Built Winner:
MAR AMORE • 38′9″ Sam Chamberlain/ Rockport Marine Sloop, 2023

Professionally Restored Winner:
SHRIMP • 16′ Herreshoff 12½, 1914
Christopher Boit

Owner Built Winner:
SKYLARK • 16′ Joel White Haven 12½ Sloop, 2024
Bob Emser

Owner Built Honorable Mention:
DREAMS WON'T WAIT • 18′6″ Harris/ Chesapeake Light Craft Gaff Pocket Cruiser, 2021
Drew Fairaizl

Owner Restored Winner:
SILK PURSE • 23′ A.R. True Gaff Sloop, 1955
Jack Pare

Owner Restored Honorable Mention:
PANSY • 19′9″ Celebrity Class Sloop, 1952
Chris Elliot

Owner Maintained Winner:
MARINE • 62′ Al Mason Ketch, 1985
Walter Page

Owner Maintained Honorable Mention:
SEVEN STARS • 33′ Mark Smaalders Cutter, 2003
Paul Thompson

Owner Restored WoodenBoat Choice Award Winner:
APSARA • 31′6″ Fredrick Geiger/Knute Peterson Ketch, 1960 • **Kaj Huld**

MANUALLY POWERED BOATS

Professionally Built Winner:
LIZ • 18′5″ Ken Bassett Pulling Boat, 2024
Newfound Woodworks

Owner Built Winner:
ARROW 14 • 14′ Platt Monfort Double Paddle Canoe, 2023
Peter Brylinski

Owner Built Honorable Mention:
URCHIN • 15′ Rowboat, 2023
Richard Ewing

POWERBOATS

Professionally Built Winner:
AVOCETTE III • 50′ Huckins, 2019
Bear & Pam Albright

Professionally Built Honorable Mention:
TWISTER • 28′ Garwood Streamliner, 2023
Mike Turcotte

Professionally Restored Winner:
COASTAL QUEEN • 65′ Aulden G. Price Chesapeake Bay Buy Boat, 1928
Peter Kellogg

Professionally Restored Honorable Mention:
PEPPER • 29′ Peter Sewall Picnic Boat, 2021
Thomas Townsend

Professionally Maintained Winner:
TIMELESS • 80′ Mathis Trumpy Motor Yacht, 1947
Richard Cromwell

Professionally Maintained Honorable Mention:
JENNY M • 36′ Herb Baum Picnic Boat, 1958
Staff King

Owner Built Winner:
PURDEE • 25′ Tom Lathrop, 2016
Egbert Dees

Owner Built Honorable Mention:
JERSEY GIRL • 20′ Roy Schreyer Mini Houseboat, 2021 • **Jim Norman**

Owner Maintained Winner:
ILONA • 30′ Gannon & Benjamin Runabout, 2005
Edward Segan

Owner Maintained Honorable Mention:
SEA CHANGE • 30′ Wicks Brothers Cruiser, 1929
Roger & Linda Davis

JUDGE'S CHOICE

35′ New Haven Oyster Sharpie, 1890
Mystic Seaport Museum

SPECIAL RECOGNITION

PERENNIAL • 14′ Fred Shell Leg o' Mutton-Rigged Catboat, 2023–2024
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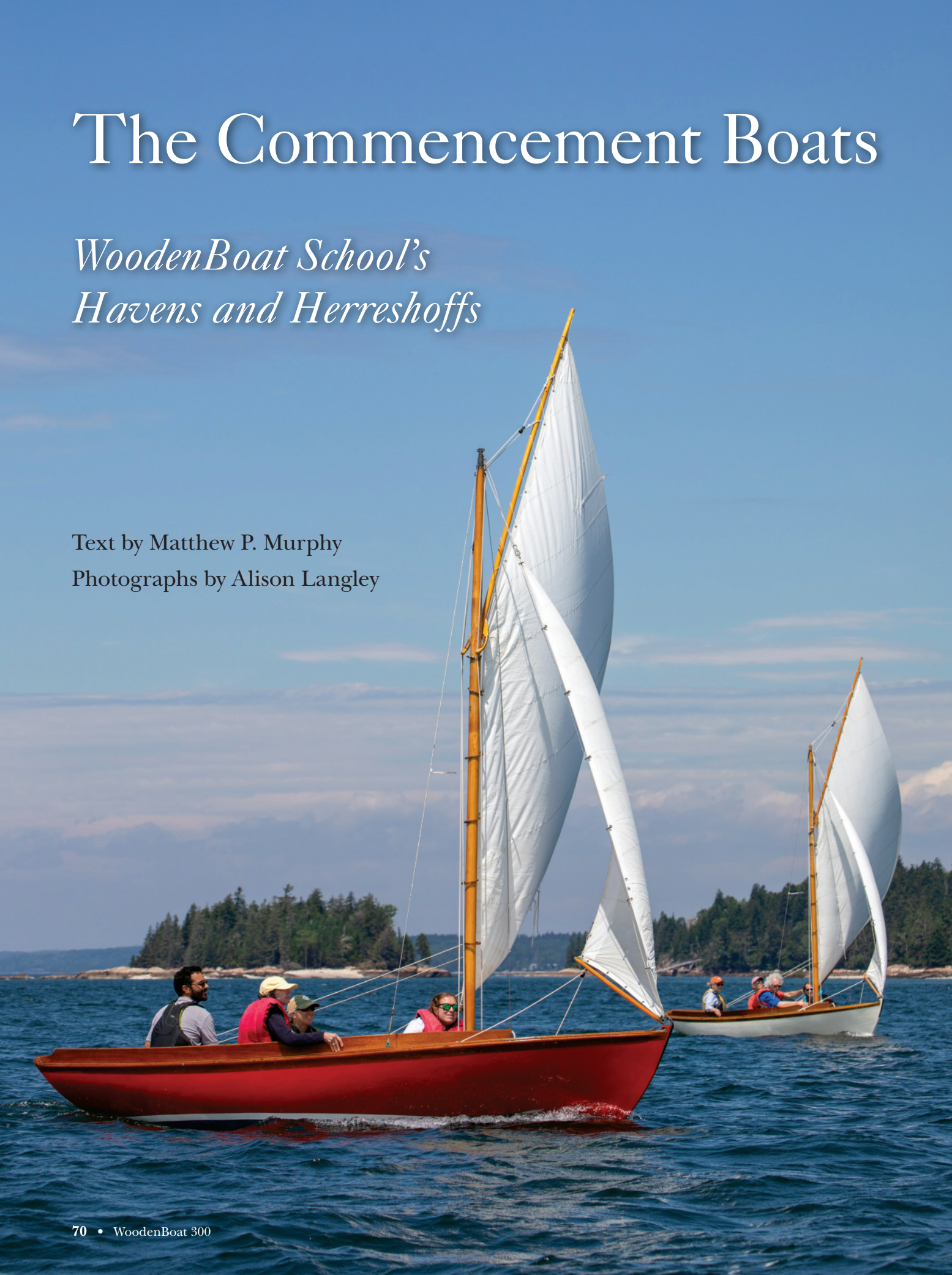
The Commencement Boats

WoodenBoat School's Havens and Herreshoffs

Text by Matthew P. Murphy
Photographs by Alison Langley



From brokerage advertisements to cocktail-party boat talk, it's a line of praise so often heard that it sometimes feels like rote hyperbole: "The Herreshoff 12½ is the best sailboat of its size ever designed." These diminutive yachts, measuring 12½′ on the waterline and 15′10″ overall, were introduced by the Herreshoff Manufacturing Company (HMCo.) in 1914 as the Buzzards Bay Boys' Boat. They were designed, as the name implies, for teaching the fundamentals of sailing and yachting to young men on the often-boisterous waters of Buzzards Bay, Massachusetts.

In the ensuing years, they proved to be equally effective at delivering the lessons of sailing to young women and adults, to be much more than a training boat, and to be suitable for waters beyond Buzzards Bay. "The 12½," said Jon Wilson, who founded *WoodenBoat* magazine in 1974, "is the ideal small boat." Jon, and the community that grew up around this magazine, held this belief so dearly that, when he founded WoodenBoat School in 1981 as an extension of the magazine, "the 12½," he said, "was the obvious first choice" as the core boat for the school's sailing and seamanship program.

By the time the school was established, the magazine had outgrown the small off-grid cabin in Brooksville, Maine, in which Jon had begun the enterprise. He had moved it four times—first to a larger building in Brooksville, from which it was driven by a fire; then to a nearby schoolhouse, then to a former inn in nearby Brooklin that today serves as WoodenBoat School's dormitory and kitchen; and finally to a disused 64-acre waterfront estate down the road—a property that is still the business's headquarters.

The new waterfront property's main building was a large, white hilltop mansion. This would become the office building. Down the drive from that was a three-bay brick barn, which would become the workshops of the fledgling WoodenBoat School. And at the waterfront were the laid-up granite supports for a long, abandoned pier jutting out into Great Cove from the coziest waterfront cabin you ever did see.

The school got a toehold in its first year, under the direction of Peter Anderheggen, with a handful of classes in the barn. But Jon envisioned it having a "broad base," rather than a tight focus on traditional wooden boat building. This broadening came about under the next director, Ben Ellison, and continued under his successors, first Rich Hilsinger and then Eric Stockinger. The school would expand to teach crafts related to boatbuilding, such as ropework, carving, and casting. It would explore emerging technologies, such as sheathed-strip construction and vacuum-bagging. And it would have an on-water program at the core of which would be a fleet of Herreshoff 12½s.

"It was," said Jon, an "aspirational vision," rather than a carefully forecast business plan.

***Opposite*—A pair of Haven 12½s, FOX (red boat) and CONNIE, sail in company during a course at WoodenBoat School in July 2024. Havens, which were designed in 1984, and the Herreshoff 12½ that inspired them, are the core boats of WoodenBoat School's sailing program. They are considered in some circles to be the best all-around sailboat of their size ever designed. *Above*—CONNIE sails near the WoodenBoat School pier. At the top of the pier is WoodenBoat's iconic boathouse, which combines sleeping, kitchen, classroom, and boat-storage space.**

The Herreshoff 12½ DOVEKIE leads the Havens FOX and CRACKERJACK home from a morning of sailing instruction. Students will practice a few mooring landings before heading to the boathouse for lunch; then it's back to the boats for an afternoon of more instruction.

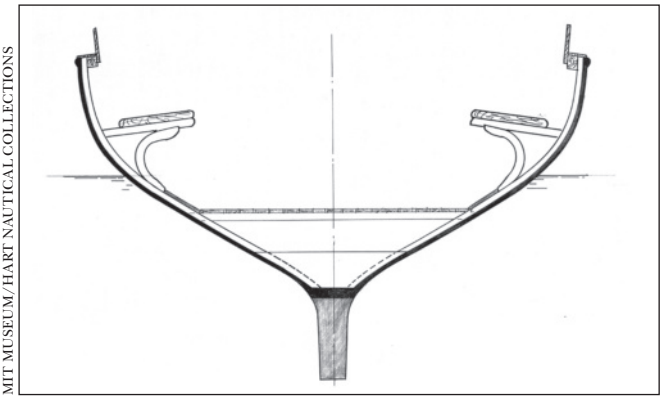
Think of the Herreshoff 12½ as a small version of a large yacht. It has a displacement hull with 2′6″ of draft, a transom-hung rudder, and 750 lbs of outside lead ballast bolted to its bottom. Like all of HMCo.'s designs, it began life as a carefully carved half model by Nathanael G. Herreshoff, to be precisely measured and scaled to full size. Two designs would come from this model: the 12½, and the larger Fish class (20′9″ LOA). Interestingly, Herreshoff seems to have had neither of these lengths in mind when carving the model, because if you scale up the actual model directly, its size lands right between those two boats.

Between 1914 and 1943, HMCo. built 364 Herreshoff 12½s. The company then engaged the Quincy Adams Yacht Yard to build 51 more through 1948—though these boats carry Herreshoff builder's plates and hull numbers. Cape Cod Shipbuilding, which acquired the rights to the design at the end of the Quincy Adams run, built 35 more wooden hulls through 1950, when they transitioned the design to fiberglass and called it the Doughdish. Among the cognoscenti, the Quincy Adams boats are considered to have some quirks, to which we shall return.

Jon's aspirational vision for a fleet of 12½s forming the core of a seamanship program lagged behind the actual beginning of WoodenBoat School. The fleet, said Jon, "wasn't able to take shape until we had a pier." The pier construction took place in 1985, and with it came a busy waterfront that included a classroom and sleeping space for instructors and staff in that cozy cabin at the top of the pier.

What design qualities drew Jon, and the greater community, to this boat for this purpose? First, he said, it had built-in flotation encased in two chambers, one in the bow and one in the stern. While most of these chambers have been compromised in some form or other, with the stern one now typically serving as a locker and the one in the bow sometimes doing so, it's clear that Herreshoff was thinking about safety; such flotation was often an afterthought in small boats at that time.

Havens and Herreshoffs share an equal place in the WoodenBoat School fleet. Instructor Jane Ahlfeld notes a subtly greater initial stability in the Havens—an observation supported by this midship-section comparison. The Herreshoff boat (left), with its relatively deep lead keel, has slack bilges; the Haven (right), with its shallower draft, has firmer bilges and thus greater form stability.



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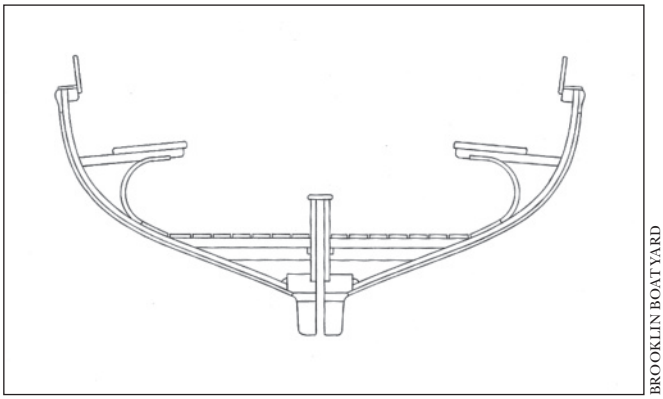


BROOKLIN BOAT YARD

***Above*—The Havens and Herreshoffs are identical in their simple, functional details. Boom crutches are standard features, as is the tiller aperture in the transom. The afterdeck, in the original design, enclosed a flotation tank; today, this space is typically given over to storage. *Right*—Elegant purpose-cast brackets join the coaming to the transom. Accurate reproduction hardware for Havens and Herreshoffs is available from J.M. Reineck & Son (www.bronzeblocks.com).**

Another interesting safety feature was that the early 12½s had extra-thick seats of cedar, which were designed to float out of the boats, in four pieces, as flotation devices, in the event of a swamping. "Think of how fast a loose lifejacket would blow away," Jon said. WoodenBoat School students are required to wear lifejackets in the boats, but this floating-seat safety consideration must have been a relief to the parents of those Buzzards Bay boys in 1914. Jon, despite his adventuresome business inclinations, describes himself as "risk averse" when it comes to on-water safety. "I was definitely aware of the risk" of running a program on the water. The fact that the Herreshoff 12½s were built by the best wooden boat builders of the day, with thoughtful safety considerations, was a large factor in its adoption by WoodenBoat School.

Jon noted other details of these boats that made them a good choice for the school: They had oarlock sockets, so could be rowed when the wind died. They automatically round up into the wind during a knockdown or when the tiller is let go. They have a self-tacking jib and a mainsail, which gives both the crew and skipper a lesson in sail trim; it also teaches the dynamics of the most common sail plan on today's sailboats. "It's an amazing teaching lab," Jon said. "People were changed by these boats."

Indeed, Jon's friend and mentor Joel White was deeply influenced by his own Herreshoff 12½, SHADOW, which he learned to sail, mostly on his own, at age 15 or 16. This experience culminated in a sort of personal graduation ceremony, a multi-night cruise around Deer Isle in Penobscot Bay. Joel slept aboard, out of touch with his family for the duration of the several-day adventure. He went on to an illustrious career as an MIT-trained naval architect and yacht builder as proprietor of Brooklin Boat Yard, which is just a mile or so from WoodenBoat's waterfront. Jon

Another signature element of both the Havens and Herreshoffs is the paired bronze bow chocks that fair into the toerail.

A WoodenBoat School class in July 2024, taught by Pat Mahon (standing at the transom, in the blue cap) conducted a thorough survey of Herreshoff Hull No. 2008, a Quincy Adams–built Herreshoff 12½. After this, they developed a repair plan and removed floor timbers, some planking, and the transom. Transom replacement was well underway at the end of the two-week class; the project will continue in future classes.

and Joel's friendship was vital to the magazine's early successes. Joel, who died in 1997, had in fact helped to arrange the sale of the company's current property to Jon. For many years he wrote the magazine's design-review section. And two of the many boats he designed—the Nutshell Pram and the Shellback Dinghy—are staples of both the WoodenBoat School waterfront and the WoodenBoat Store plans catalog. And, notable for this discussion, he designed the enormously popular Haven 12½—a Herreshoff 12½ derivative and near-lookalike that has a centerboard rather than a full keel.

Jon remembers the new design's conception this way: Sam Neel, a design client of Joel's, "wanted a Herreshoff-looking boat that had a centerboard, so he could come closer to shore." He also wanted to be able to trailer the boat between Brooklin and his New Hampshire freshwater cottage. To maintain the original design's stability characteristics while reducing the draft, Joel gave the new boat more beam than the Herreshoff hull, firmer bilges, and a centerboard that operated through a slot in the shallower ballast keel. The boat draws just 1′6″, compared with the Herreshoff 12½'s 2′6″. Joel and Sam agreed to call the new design the Haven 12½ in deference to the classic waterfront Brooklin neighborhood of small cottages called the Haven Colony, where Sam summered and whose yacht club is a longtime home to a fleet of Herreshoff 12½s that still race every summer. (Joel shared credit for this design with Nathanael G. Herreshoff, and did the same for the Flatfish—a centerboard derivative of the Fish class.)

Maynard Bray, longtime technical editor of WoodenBoat and another member of the magazine's early brain trust, collaborated to some extent on the design, and built most of the first Haven. He then arranged for his wife, Anne, to copiously photograph its construction, and wrote a book about how to build it. The boat is a seemingly complex and ambitious project even for an experienced builder, but so detailed were Joel's drawings and Maynard's instructions that they have guided the building of hundreds—perhaps thousands—of Haven 12½s worldwide—many by first-time builders. The WoodenBoat Store's study-plans description, written by Maynard, describes it this way: "In fact, however, it is

The Haven 12½'s centerboard trunk does not intrude on the cockpit. Rather, it provides a handy footrest, as well as a place to secure the mainsheet block.

The Herreshoff 12½'s mainsheet leads from the transom—a slightly less ergonomic configuration than the Haven 12½'s. At rest, however, the boats are nearly identical, save for the Haven's centerboard trunk and subtle shape differences in the transoms.

not very complicated; it simply requires care and concentration. We have done everything we could to make the building process understandable: the plans for the Haven 12½ are very detailed, and they include full-sized templates for the hull molds, transom, and other key pieces. The need for lofting is thus eliminated."

WoodenBoat School itself, in a series of classes, built several Havens in the late 1990s and early 2000s. Two of these, FOX and CRACKERJACK, are of cold-molded construction. The Haven, today, is an equal companion to the Herreshoff 12½ in the school's fleet, which includes three Haven 12½s and one currently operational Herreshoff. Two other school-owned Herreshoffs are the subject of a survey and repair class up in the shops, and the original Haven, PETREL, recently joined the school's fleet as a donation and was forecast to be in commission by the time this article is published.

In somewhat the reverse of the school-founding timeline, this core waterfront design has found its way to the shops as a centerpiece teaching tool. Under the direction of shipwright Pat Mahon, a crew of students spent two weeks during the 2024 season surveying HMCo. hull No. 2008, a Herreshoff 12½ that was given to the school a few years back. They then devised, and began executing, a repair plan.

Pat described the boat as "a good example of a very poorly maintained 12½." It is one of the 51 hulls built for Herreshoff by the Quincy Adams yard, and its quirks were illuminated during a lunchtime visit I made to the class early in the second week. My colleague Tom Jackson, *WoodenBoat*'s senior editor, was there. He has a discerning eye for sheerlines, and remarked to Pat that this boat's seemed to have a hump near the bow. Pat confirmed this, noting that all of the Quincy Adams boats have this trait. Later, Maynard speculated that it was likely not a measuring error, but rather was due to that area of the hulls having squeezed together when removed from the building jig; we all resolved that it would be good to measure the beam at that location, and compare it with the designed measurement.

Such are the archaeological lessons of digging into old boats, and the Herreshoff 12½ provides deep teaching in this regard. I tend to revere some builders of the past as fussy perfectionists, but the reality is that they were running businesses and many were building to a price—not cutting corners, necessarily, but saving where it made sense. Hull No. 2008, the Quincy Adams boat, revealed another secret when the paint was stripped away: the hull was planked in a patchwork collection of cedar and mahogany. Pat postulated that this variegated planking was probably original, because in all the bottom planks there were eight screws at each frame crossing—the original four, plus four more that were bored in a hasty sister-refastening.

"It's a good boat for the purpose of the class," Pat said. Any bigger, and it would be difficult to get anything done. By day two, week two, they had gotten a lot done. They had ripped out floors, planks, and the transom, and were soon to drop the ballast keel and glue up a new transom blank, drifting it together with more durable bronze pins rather than the original galvanized steel. This project would come after the transom shape was confirmed. There were two other Herreshoff-built 12½s in storage—subjects of a future class—and these provided a good comparison to the Quincy boats. "All of the Herreshoff transoms are identical," Pat said, "The Quincy boats aren't even close."

Under sail, the differences among Herreshoffs, Havens, and Quincy Adams boats are hard to discern.

There is no person better placed than Jane Ahlfeld to describe the educational and performance nuances of the Herreshoff and Haven 12½s. The 2024 season marked her 35th year of teaching at WoodenBoat School. A former first-grade teacher, and now an information technology consultant in the off season, she's taught thousands of people how to sail on the WoodenBoat waterfront. Why, I wondered, does she like teaching in 12½s?

"They are a comfortable boat for four adults," Jane said. "They are responsive, so the feedback to the student is immediate. The helm is really sensitive," she said. Give the tiller a little pull or a push, and the boat

MATTHEW P. MURPHY

WoodenBoat School's fleet of Haven and Herreshoff 12 1/2s undergoes spring commissioning in 2024 by a dedicated group of school staff and alumni. In the foreground is PETREL, the first Haven 12 1/2 to be built. Note that its draft is less than that of the Herreshoff boats in the background.

responds. "The student is going to see the result immediately." In a bigger boat, she observed, a student often oversteers because the result of helm inputs is not so immediate. Jane has also taught for WoodenBoat aboard the 90′ LOA schooner MARY DAY, an experience that provides a handy illustration of her point. "The response time on MARY DAY's helm is so much different," she said. "A student starts turning the helm, and nothing happens. So they keep turning the helm. You have to wait at least 30 seconds to see what happens. The 12½ is instantaneous; you turn the helm, the boat moves."

There's a sense of safety, she said, because even though the boat is heeling over, there's a point at which it is "happy—it's where it wants to sit. It's not a tender, tippy boat; it's a nice stable platform." She does draw a stability distinction between the Herreshoff boats and the Havens: "I'm a Haven girl. When I sail a Herreshoff I'm always surprised by how quickly they heel over. With the Haven, it's slower. It's very subtle." Because their shallow draft requires a firmer turn to their bilges, and because some of their shallower draft is compensated for by greater beam, the Haven hull has greater initial stability. "I don't think a lot of people would pick it up, but I've sailed in both boats so much that I can feel the difference," Jane said.

And what about crew capacity? "Three students and a teacher," Jane said, "is the ideal crew complement for teaching in a 12½. I've done five on windy days, but that's too many." She continued, "The beauty is that you can easily solo them, because of that self-tacking jib."

The self-tacking jib is set on a club that attaches to a cast-bronze tack hook on the after face of the stemhead. The jib's clew attaches directly to the club. Jane is quick to recite the reminder her teaching colleague Jenny Bennett delivered to students years ago: "It is a self-tacking jib, not a self-tending jib." Although the club, which is rigged to use its sheet as a traveler, takes care of itself when coming through stays, one still must trim that sail to match the trim of the mainsail. And sail trim, says Jane, greatly affects helm balance in both a Herreshoff and a Haven. The jib feeds air to the back side of the main; an overtrimmed jib will backwind the main, suggesting that it's luffing when it isn't.

Herreshoffs and Havens can be rigged with either gaff or Bermudan mainsails. All of WoodenBoat School's Herreshoff 12½s (WE THREE, SEAL, and DOVEKIE) happen to be Bermudan-rigged, while all of its Havens (ALLENE, CONNIE, FOX, and CRACKERJACK) are gaff-rigged. Jane prefers the gaff rig, though acknowledges that the Bermudan-rigged boats can sail closer to the wind. It's her instructor's instincts: She'd rather encounter a squall in a gaffer, "because of the ability to scandalize," or drop the peak of the sail. "It's an immediate reef, in a big way. You've taken at least one-third of the sail area away, if not more." A gaff-rigged 12½ is also easier to set up alone, because its short mast is easier to step at the ramp than a tall Bermudan one. Jane also says WoodenBoat School's gaff-rigged boats have more sail-shape control than the Bermudan boats. But "boat for boat," she says, "they're pretty much the same, speed-wise."

Jon's early vision for a boat that would serve a wide range of abilities has proven itself with the Herreshoffs and Havens. Jane says she has had students who are ready to solo after one day in the boat—though that's rare. She recalls one not-so-risk-averse pupil whose other recreational endeavors included camping by

The boat's beauty, Maynard Bray says, may be the ultimate factor in its enduring appeal.

slinging a bivouac sack high up on a rock wall. That student soloed on her first evening. Others may take a few days. And some, said Jane, "don't know which way to push the tiller at the end of the week." Skill levels vary; the 12½ serves them all.

Jane said that on high-wind days she reefs "often, and early." She said 12 knots of wind is ideal for a reef—that performance does not suffer with one "tuck" at this wind velocity. "Many people think that's too early, but the boat is more manageable. And I'm teaching beginners. I've found no performance degradation, and I don't wait until 15." She did say that if the breeze drops to 10, "you're feeling sluggish" with a reef.

After all this praise, I asked Jane about the boats' drawbacks. "Their price?" she said, phrasing the answer more like a question than a statement. A hull for either a Haven or Herreshoff might take 1,000 hours to build, before rigging and fitting out. Several area builders, including Artisan Boatworks in Rockport, Maine, and Eric Dow in Brooklin, have earned reputations for finely built Havens and Herreshoffs. Eric has turned out more than 50 Havens, and probably repaired or restored more Herreshoffs than anyone. Artisan builds exquisite hulls to both designs, and has done careful restorations of originals. One veteran builder and restorer of both types notes that the hours for a new build versus a restoration, full keel versus centerboard, and traditional versus cold-molded, are all similar, in the 1,600-hour range. At $65 per hour, that comes to $104,000 in labor. Materials, including premier reproduction hardware from J.M. Reineck and Son, a custom-fitted Triad trailer, and a paddle and boathook from Shaw & Tenney, comes to about $40,000, for a total cost of $144,000. The boat is quite popular with amateur builders looking to invest their own hours.

For his part, Jon remembered a visit to WoodenBoat School by the naval architect Bill Garden nearly 10 years after the school had started. Bill went for a sail in one of WoodenBoat School's Herreshoff 12½s and was reportedly unimpressed with the boat's speed. "This is one of the slowest boats I've ever been in," Jon recalls Bill saying. It's an interesting perspective, and with hindsight seems more a matter of design priorities than a poke at the boat itself. "Bill would have had a fine-lined, fin-keeled, narrow, shallow hull. He was more of a sporty guy," Jon said. And he notes that Bill was not commenting from the perspective of someone concerned with training people of varying skill levels, from all over. "There was no question, though, that Bill knew they were safe boats. They were designed to bring a bunch of boys home after a day on Buzzards Bay."

Jane's decades of observation have, in a large way, proven Jon's vision. "To me," Jon said, "the 12½ is the 'commencement craft.' You can learn everything you need in it." In other words, if you can competently sail a Herreshoff 12½, you've graduated.

"I often apologize to students in my course introduction," Jane said. "I say to them, 'I'm sorry, but we're introducing you to one of the best small boats there is. It's hard to go back to a lesser boat. You're going to get comfortable in this. It's the cream of the crop.' I can't imagine a better boat to learn sailing."

"The Herreshoff 12½, and then the Haven," Jon told me, "was always the small-boat epitome—the embodiment of what we wanted to do."

Despite all this theory and proof, Maynard Bray's assessment of the boat's enduring appeal might be most on-point. He and I were having a long discussion one afternoon about the designs' minute details and history, when he paused for a few moments, and then, piercing the talk of sail trim, stability, safety, and construction, crystallized the draw of these boats in one carefully landed emotional nugget: "The one thing that makes these boats so popular is that they're so damn beautiful!"

Matthew P. Murphy is editor of WoodenBoat.

To view our recently released WoodenBoat Legends video documenting the enduring appeal of WoodenBoat School's Haven and Herreshoff 12½s, join our Mastering Skills membership site (skills.woodenboat.com) or subscribe to our newly enhanced digital edition (www.woodenboat.com).

WoodenBoat at 50

CRAIG MILNER

A chance meeting, and a magazine's impact on a career and a community

by Randall Peffer

Maybe it was fate…or maybe just a happy accident. But Jon Wilson and *The WoodenBoat*, Volume 1, changed a lot of lives, mine included. It began for me on a bright warm, autumn day at Annapolis, Maryland, in 1974.

But first a bit of backstory. I was 26, a young writer, sailor, and wooden boat custodian fresh from graduate school in New Hampshire. In 1974 I had been drawn from New England by the possibility of a teaching job near the shores of Chesapeake Bay and a search for my roots.

According to family lore, I was descended from the bay's watermen, so I had begun to explore the watermen's ports of the Chesapeake. In late winter 1974, I was in Cambridge,

With his son Christian assisting, *WoodenBoat* founder Jon Wilson, soon after his return from the Annapolis Boat Show in 1974, works on an early issue of the magazine from his off-grid home office.

Maryland, when I got my first glimpse of working skipjacks. Four boats were unloading their daily catch of oysters at the wharf. I was blown away by their graceful sheers, long and proud bowsprits, raked masts, and immense amount of oyster grit. The crews had a rugged independence, a distinct drawl, a comical litany of hard-times tales, and a peculiar way of calling their shipmates "honey." The scene struck me as a tableau from a hundred years ago, and something about these crews and their skipjacks seemed simultaneously foreign and hauntingly familiar.

I wanted some of that. So when I saw "Tilghman Island" written as the hailing port on the transoms of the skipjacks, I knew Tilghman would be the next stop on my search for my roots. But the teaching job, and a summer of reconditioning and sailing a tired Wianno Senior knockabout on Cape Cod, intervened.

I didn't get back to the Chesapeake until that sunny fall day in '74 at Dock Square in Annapolis. It was the annual boat show—part fall ritual, part fair, part carnival. But while the show teemed with happy people and gleaming boats, I found myself feeling a bit estranged from the euphoria surrounding the rafts of fiberglass production boats that I could neither afford nor relate to.

Then I turned a corner on one of the alleys between vendor kiosks and there was Jon Wilson, not much more than a kid my own age in a rugby shirt. He was seated in a tiny cubby of a kiosk decked out with a *WoodenBoat* banner and smiling at me over a stack of magazines. There was something about that smile, both gentle and playful, that drew me in.

"It's a new magazine," he said. "You like wooden boats?"

I told him about the Wianno Senior that had stolen my heart on Cape Cod.

He handed me a copy of *The WoodenBoat*, as it was then called, issue No. 1, with the iconic photo of the Murray Peterson schooner SILVER HEELS under full sail on the cover. I pictured myself at her helm and my mind started to turn to crème brûlée.

"We're an alternative to all the other boating magazines that do not cover wooden boats anymore," he said as I thumbed my way through the full feature about SILVER HEELS. The schooner and the photos were breathtaking.

"Sign me up," I said. Then, as I was sinking deeper into SILVER HEELS and her story—telling myself that maybe someday, if I were very, very lucky, I would own a schooner like that—I had an idea. I told Jon I was a writer. Would *The WoodenBoat* be interested in a story about skipjacks.

"What kind of story?" asked Jon. "Oyster dredging?"

He looked a little skeptical, as if a story about oyster dredging was more suited to *National Fisherman*, so I shifted gears in my mind.

"I was thinking more like a story about the Sandy Point skipjack race at the beginning of November." I told him it kicked off the oyster season and drew skipjacks from up and down the bay. It was a celebration of wooden boats.

Jon's eyes lit up.

"How about if I join the crew of a boat from Tilghman Island?" I said I had a photographer friend. We could do the story on speculation.

***The WoodenBoat* No. 1 featured on its cover the Murray Peterson–designed schooner SILVER HEELS.**

"Hell, yes," said Jon. "Go for it."

Buoyed by his optimism, confidence, and enthusiasm, that was the day I took my first copy of *WoodenBoat* and headed to Tilghman Island. That was the day I befriended two skipjack captains, Bart and Wade Murphy, and gained some credibility as a seafarer and writer with them by showing them my copy of *The WoodenBoat*. It was the day I became a greenhorn skipjack deckhand. My story about the race appeared a few months later in WB No. 3.

That story launched my career as a maritime writer. It wasn't long before I was writing regularly for *WoodenBoat* and other nautical magazines such as *Sail*, working as a part-time waterman on the Chesapeake, and getting my 100-ton master's license. Then Jon asked me to be the Chesapeake Bay editor for *WoodenBoat*, and my narrative about the skipjack race became the opening chapter of my first book, *Watermen*.

Over the succeeding decades, while writing features for *WoodenBoat*, I have watched the magazine grow from the dream of a young New England boatbuilder. I have watched as the "*WoodenBoat* phenomenon" has celebrated an art form, its practitioners, and its lovers. I have witnessed *WoodenBoat* drawing together watermen and yachtsmen, builders and modelers, tinkerers and collectors, dreamers and designers, landlubbers and seafarers, children and grandparents. *WoodenBoat* has become an inspiration, a community builder, and a forum for tens of thousands of like-minded people around the world. In short, Jon and his dream have given us roots for our restless souls.

"That's the right smart o' it, honey," as I learned to say after a well-sailed race aboard a skipjack.

Randall Peffer is the author of more than 25 books. His work has appeared in National Geographic, Smithsonian, *international travel magazines such as* National Geographic Traveler, *and the adventure sections of U.S. major metro dailies such as* The New York Times *and* The Washington Post. *He has never lost his affection for wooden boats; their builders and custodians; the magazine; and its founder Jon Wilson. He has published approximately 70 features in* WoodenBoat.

Jon Wilson vividly remembers meeting Randall Peffer at the Annapolis Boat Show in 1974. He also recalls meeting the boat designers Thomas Gillmer, Melbourne Smith, and Mike O'Brien at the same event. Gillmer's and Smith's considerable efforts have been covered in the magazine over the years since, and O'Brien, who was senior editor for more than 25 years, still serves as boat-design editor.

Launchings

Edited by Jenny Bennett

These pages, along with the Boat Launchings section of www.woodenboat.com, are dedicated to sharing recently launched wooden boats built or restored by our readers. If you've launched a boat within the past year, please email us at launchings@woodenboat.com, or write us at Launchings, WoodenBoat, P.O. Box 78, Brooklin, ME 04616.

Please include the following information: (1) the boat's length and beam; (2) the name of its design class or type; (3) the names of the designer, builder, owner, and photographer; (4) your mailing address along with an email address or phone number; (5) the port or place of intended use; (6) date of launching; and (7) a few sentences describing the construction or restoration. Send no more than five photographs (jpg images at 300 dpi) and enclose a SASE if you want anything returned.

BUFFALO MARITIME CENTER (LEFT AND TOP LEFT); STEPHANIE TRZECIAK (BOTTOM LEFT)

In May 2024, the Buffalo (New York) Maritime Center launched a full-sized replica of Gov. DeWitt Clinton's SENECA CHIEF, the boat that officially opened the Erie Canal in 1825. Built between 2019 and 2024 as a community project at the western terminus of the canal in downtown Buffalo, the replica will become a living museum to "educate and inspire the people of New York State in reimagining the Erie Canal." Along with master boatbuilder Roger Allen and lead boatbuilder Greg Dudley, hundreds of volunteers worked on the project in roles ranging from historical research to hands-on boatbuilding.

The Erie Canal Boat SENECA CHIEF is 73′ LOA × 12′6″ beam. Her keel, frames, and other structural timbers are of white oak. The keelson was made from a single 60′-long piece of Douglas-fir, fashioned from a donated timber that was used in the early 1900s as a gin-pole crane. She is planked with two layers of 1″-thick cypress with a layer of Dynel cloth set in epoxy between the layers. The outer layer is traditionally caulked with cotton. The builders hope that the combination of traditional and modern boatbuilding techniques will help to maintain the boat's watertightness despite the necessary winter haulouts. The 1820s-style cabin is fitted out in cabinet-grade hardwoods.

SENECA CHIEF will serve as the flagship of the Erie Canal Bicentennial Celebration, and in 2025, during the World Canals Conference, she will travel from Buffalo to New York City 200 years after her namesake made the same trip. Following the commemorative voyage, SENECA CHIEF will return to Buffalo but will continue to travel to communities along the canal to share stories, illustrate traditional boatbuilding techniques, and highlight the history and impact of the Erie Canal.

CRAIG DEAN

Steve "Goober" Campbell of Alameda, California, has built a Glen-L hydroplane, restored a 1942, 17′ Chris-Craft, and has now designed and built this 7′11″ × 3′ outboard skiff for use on Stony Lake, Ontario. She is built of ¼″ marine plywood on white-pine frames milled from an old tree that came down on Monroe Island in Stony Lake. Her transom is 1″ marine plywood and the thwarts are white pine. GOOBER (the name has been Steve's nickname since he was a child) was launched in October 2023.

PHIL BOBZIEN

Working alone on weeknights and weekends, Phil Bobzien of Snohomish, Washington, completed this Sam Devlin–designed Candlefish 18 in about 1,800 hours. He began the project in 2015 and launched CARMEN—named for his grandmother—in August 2023 on Lake Stevens. CARMEN's hull is built stitch-and-glue style of marine plywood with 6-oz 'glass cloth set in epoxy. The keel is purpleheart and the bright-finished gunwales are sapele. Phil says the only help he needed was to turn the hull over, and later, to hoist the 70-hp outboard motor onto the transom. Phil will be using CARMEN with his wife and friends for picnic cruises in the coastal waters of Puget Sound and nearby freshwater lakes.

MATTHEW MURPHY (TOP); WES WHEELER, (BOTTOM LEFT AND RIGHT)

The Wheeler 55 was inspired by the 1931 Wheeler Playmate catalog and a series of wooden boats built in that era by the Wheeler Shipbuilding Company that included Ernest Hemingway's PILAR of 1934. Custom-designed and -built, she is 55′5″ LOA without swim platform, her beam is 16′9″, her draft is 4′8″, and she displaces 60,000 lbs light. The initial design and rendering were by Bill Prince Yacht Design of Port Washington, Wisconsin, and the detailed design and 3D shop drawings were by Brooklin (Maine) Boat Yard and their principal designer, Will Sturdy, with interior design by Martha Coolidge in conjunction with the Wheeler family. The yacht was built by Brooklin Boat Yard with Eric Blake, the yard's vice president, serving as project manager. Structural members are laminated Douglas-fir, the hull is vacuum-bagged African-mahogany plywood, the topsides and interior are sipo mahogany, and the decks are laid southeast-Asia teak. There are two staterooms, a third cabin for crew, three full heads with showers, two fully equipped galleys, a spacious saloon, and a pilothouse with a 360-degree view. The yacht has two 1,000-hp MAN V8 diesel engines, and on sea trials cruised at 25 knots at 2,300 rpm with a range of 300 miles. The Wheeler 55 was launched in Brooklin in summer 2024.

DAVE FEDER AND STEVEN FEDER

Dave Feder of Lansdale, Pennsylvania, built RIVER HAWK, a Hans Friedel–designed Osprey supplied as a kit from Newfound Woodworks, as a gift for his brother, Steve. Dave says that the western red cedar strips from Newfound Woodworks had unique black streaks and he laid them out so the finished boat would have the appearance of "bird wings over the foredeck and down both sides." He then added rice-paper graphics of a bird in full flight to the foredeck, stern hatch, and cockpit recess to complete the "River Hawk" theme. RIVER HAWK is 15′9″ LOA with a beam of 24⅜″. She was launched in April 2024 and joined the first boat that Dave built, LAZY LIGHTNING, which he relaunched the same day after a year in the shop to renew the 'glass sheathing and paint. The brothers will be paddling their kayaks in the mid-Atlantic region and England, where they are dreaming of a future trip down the Thames from Oxford to London.

CADE SIMMONS AND NATE RESSLING

In 2023, Miguel Prida of Galveston, Texas, attended Paul Gartside's boat-design class at WoodenBoat School. Inspired by that class and the shop classes happening concurrently elsewhere at the school, he bought a set of plans for Iain Oughtred's Acorn Tender and returned home to Texas to try his hand at building. SEVEN SEAS is 7′5″ LOA with a 4′ beam. She is built of mahogany marine plywood with varnished solid mahogany accents, and while Miguel says the construction was challenging, he also found it very rewarding. SEVEN SEAS was launched and christened in Galveston in February 2024.

STEVE FRAZIER

When Connor Wallace of South Kingstown, Rhode Island, was in middle school, his father built a plywood skiff for him and his brother. A few years later, Connor built his own strip-planked kayak as a senior project in high school. Now, many years later, SKEDADDLE is the first build Connor has taken from start to finish on his own. He chose the Iain Oughtred–designed Caledonia Yawl because he liked its "traditional good looks," and while it would be large enough to carry his whole family, it was small enough to build and store in his garage. Connor began building SKEDADDLE in 2021 and launched her in Point Judith Pond, Rhode Island, in May 2024. For the immediate future, Connor plans to sail her locally, but he is looking forward to summer camp-cruising with his family along the Maine Island Trail.

TOM JACKSON

Peter Kass's Johns Bay Boat Company in South Bristol, Maine, launched the 43′6″ lobsteryacht VIGILANT in June 2024. Powered by an 800-hp MAN diesel engine, the boat will cruise comfortably at more than 20 knots. She is the third Kass lobsteryacht built for Richard Armstrong, whose family members still own the previous two boats. The extended wheelhouse has a galley to starboard aft of the steering station, with a window that swings open for communication with the large aft cockpit. A settee and table are opposite, and forward of these is a bench seat opposite the helm. Below, she has a head with a full shower to starboard, two guest berths to port, and a comfortable stateroom forward. VIGILANT's name is a nod to Armstrong's earlier motoryacht, the Walter McInnis–designed 71′ sardine-carrier-styled LITTLE VIGILANT of 1950, which he restored and cruised widely before donating her to Mystic Seaport Museum. VIGILANT's home port will be Friendship, Maine.

JAY MOODY

Helga and Jay Moody of Danbury, Connecticut, spent 16 months building H, an 18′ center-console Marissa design by Graham Byrnes of B&B Yacht Design, which won the 2009 WoodenBoat Design competition (see WB No. 211). H is built from a kit with Douglas-fir for the frames and ⅜″ and ½″ okoume plywood for the hull panels. Helga and Jay say they also used about 24 gallons of epoxy. They personalized the boat's look with a mahogany dashboard, and added strength with a triple-thickness transom. H was launched in May 2024 on Candlewood Lake in Danbury, and Helga and Jay report that with her 60-hp Suzuki outboard her top speed is 30 mph, she handles nicely, and "the ride is dry."

FREDRIK ERIKSSON

A father-and-son team, Mats and Akseli Vuorenjuuri of Porvoo, Finland, built this Iain Oughtred–designed Ness Yawl, named NESSIE, as a show and test boat for their boatbuilding shop, Nordic Craft. She is 19′2″ LOA with a 5′3″ beam and is built of okoume plywood with Douglas-fir keel, stems, trim, and spars. The floorboards and thwarts are of Finnish pine. Mats sees NESSIE as the perfect ambassador for their business, through which they promote "the pleasures and possibilities of small-boat cruising in Finland." NESSIE was launched in Porvoo, east of Helsinki, in May 2024.

Mystic Seaport Museum's 35′ New Haven Oyster Sharpie was donated to the museum in 1947. Believed to have been built in the 1890s, the boat was stored outside and fell into disrepair. She was rebuilt at the Connecticut museum in the 1960s by Elwood Bogue, who replaced the centerboard trunk, keelson, centerboard, some stern staving, sections of the after and forward bulkheads, and the maststep. At that time, the museum did not intend to return the sharpie to the water, and Bogue made no attempt to restore the hull's original shape; she had lost 8″ of sheer over her 35′ length.

In 1973, Keith MacArthur undertook a second restoration during which he replaced three bottom planks, rigged and outfitted the boat, and relaunched her. The sharpie then had a 30-year-long career as a floating, and sailing, exhibit at the museum. In 1983, Arnold Crossman and Tom Janke completed an extensive rebuild of the keelson and centerboard trunk. By 2011, the sharpie had again suffered extensive deterioration. She was laid up ashore until 2019, when she was brought into the museum's Henry B. duPont Preservation Shipyard main shop building.

Using the original sections, Walter Ansel, the shipyard's director, created new CAD lines, with a sheerline inspired by the Lester Rose Sharpie documented by Howard Chapelle in 1928. Between 2019 and 2024, shipwrights Trevor Allen, Manny Portes, Lloyd Meads, and Scott Gifford restored the hull to her original shape, saving the keelson and rig. Large pine trees donated to the project by Boy Boyden of Foster, Rhode Island, were milled by Nathan Adams. The sharpie was relaunched at Mystic Seaport in May 2024.

MYSTIC SEAPORT MUSEUM

The centerboard sloop ELLIOT WHITE was designed by Fenwick Williams (hull) and K. Aage Nielsen (sail plan) for the John G. Alden Design Company and was built in 1936 by the Mantoloking Boat & Engine Company of Barnegat Bay, New Jersey. She spent much of her life on the New Jersey coast and the south shore of Long Island, New York.

In 1997, she was found abandoned on the hard in Patchogue, New York, by Paul Maselli of Bay Shore, New York. Over the next 27 years, Paul and his wife, Suzanne, together with increasing help from growing sons Joe and Cooper (who made many of the bungs for the new planking out of the old centerboard planks), lovingly restored the sloop to her former glory. Shipwright Josh Herman helped to rebuild the hull—which included a total replacement of the backbone and 80 percent of the oak frames. Bill Mills of Stonington (Connecticut) Boatworks and Ben Philbrick of MP&G Partners of Mystic, Connecticut, worked on the deck and cabinhouse. The spars were built by Myles Thurlow Rigging of West Tisbury, Massachusetts, who, Paul says, "did a spectacular job to replicate the original spars so that all the original standing rigging would fit the new mast."

ELLIOT WHITE was relaunched at the Frank M. Weeks Yacht Yard in Patchogue in June 2024 and Paul and Suzanne looked forward to a summer of "learning the nuances," before venturing away from Long Island's south shore to explore the U.S. Northeast coast in coming years.

PAUL MASELLI (TOP LEFT); CHUCK ULRICH (TOP, RIGHT); MARCELLA DOLAN-MASELLI (BOTTOM)

Hints for taking good photos of your boat

1. Set your camera for high-resolution images. We prefer jpg format, at 300 dpi minimum.
2. Stow fenders and extraneous gear out of the camera's view. Ensure the deck is clean and uncluttered.
3. Take your photographs in mid-angle sunlight for best results. Mid-morning or mid-afternoon usually work well.
4. Keep the horizon level and the background simple and scenic so your boat stands out from its surroundings.
5. Take some pictures of the boat underway and some at rest. Often a vertical format works well for sailboats. Shoot a lot of images, then send us your five favorites.

We enjoy learning of your work—it affirms the vitality of the wooden boat community. We receive so many submissions that there is not room in the magazine for all of them to be published. Launchings not printed in the magazine can be seen at www.woodenboat.com/boat-launchings.

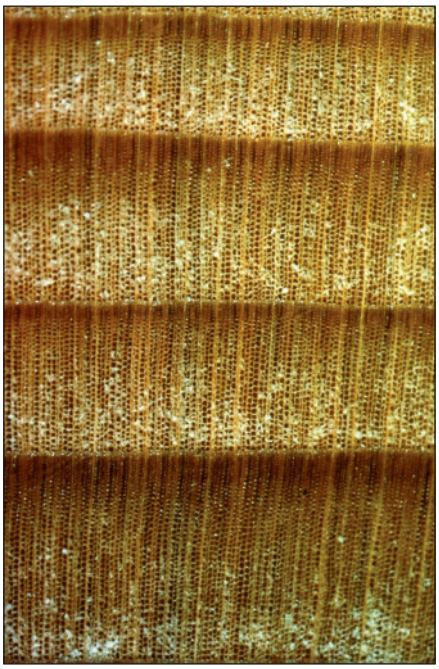
A Myth, a Half-Truth, and a Possible Deception

We've all heard someone say, "the sap is rising" or "the sap is down," suggesting seasonal filling and draining of the sap in tree stems. In truth, the sap, or water content, is never up or down but instead is constantly present in living trees. Yet my neighbor is always primed to cut his firewood trees in winter, when he believes the moisture content is lowest because the sap has returned to the roots.

Just based on the laws of physics, this would be impossible. Approximately 20 percent of the total sap in a tree is in the crown, 60 percent in the main stem, and 20 percent in the roots. How would it be possible to move this large volume of stem sap into the roots without a significant volume of moisture being extruded from the roots into the surrounding soil—a process not observed?

More to the point, if stem moisture content is lost in a living tree, it cannot be recharged—the tree will die. The water in a tree stem is not under positive pressure but rather tension, or negative pressure. This is possible because conducting capillaries—the vessels and tracheids—are very small, and the wall surfaces are cohesive with water molecules. The interplay of cohesion and tension moving water up a tree stem also requires transpiration through evaporation at the leaves in the crown. If individual capillaries are abridged by injury or air bubbles forming an embolism, repair or diversion may be possible; but loss of all or a major portion of the water column is a precursor of tree death because root pressure is not sufficient to re-establish the water column.

Dozens of research studies have confirmed that only very minor changes in stem moisture content in living trees are observed at different seasons of the year. In one study (www.scholarworks.uni.edu.pias/vol67/iss1/10), the moisture content of several hardwood trees was slightly *higher* in winter than in the fall or spring.



RICHARD JAGELS

***Photo 1*—In this cross-section of hemlock, the bottom band of growth shows a wide segment of earlywood. The ring at the top of the photo has a narrower region of earlywood. Yet the latewood, which is stronger in softwoods such as this, remains relatively constant in each band. In narrow-ring, old-growth trees, which have a higher ratio of latewood to earlywood, such trees yield stronger wood.**

My advice is to fell trees for firewood or boatbuilding when you have time to do so. Of course, seasons do matter when considering how long logs or lumber will need to season to reach a desired level of dryness, but that is a separate matter.

Old-Growth

While sap depletion in trees qualifies as a myth, our second example is more of a half-truth. For as long as I've been around lumbermen and boatbuilders, the doctrine that old-growth timber produces the highest-quality and strongest lumber has been without challenge. And while I agree with this for most softwood trees, it is not always true for hardwoods.

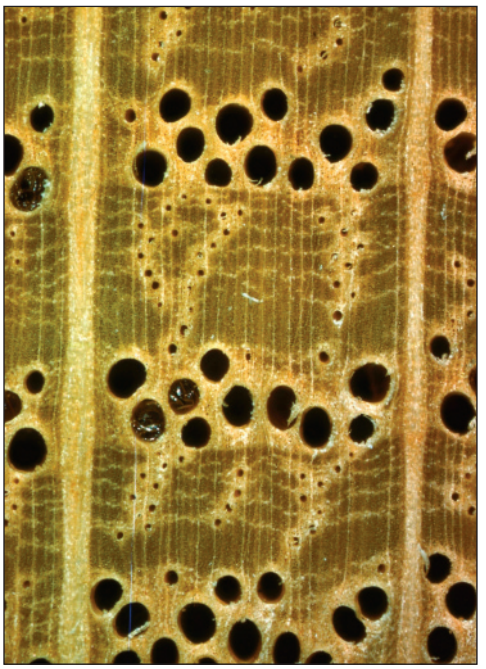
Conifers (softwoods) produce one type of cell (tracheid) that provides both structural support and water transport. In the early part of the growing season, while water transport to the crown is dominant, early wood tracheids with relatively thin, weak walls are produced by the cambium, just beneath the bark. Only when a tree's gain in height and diameter ceases at the end of the growing season does the cambium produce a layer of thick-walled tracheids that provide structural strength.

In a regenerating forest or one regularly thinned, trees add relatively wide growth increments each year, while the crowded old-growth forests produce trees with narrow growth rings. As a consequence, these narrow rings contain less earlywood and a higher percentage of the stronger latewood. In photo 1, a cross-section view of hemlock, the growth increment at the bottom has a wide area of earlywood, distinguished by its lighter color. The ring at the top of the photo has somewhat less earlywood and therefore a greater ratio of latewood to earlywood. In narrow-ring, old-growth trees, the reduction in earlywood is even greater, yielding a larger ratio between latewood and earlywood and stronger wood.

Many hardwood tree species such as maple, birch, cherry, poplar, and most all tropical woods produce a relatively uniform wood throughout the growing season, and in those cases, strength properties are mostly independent of growth rate. However, a group of non-tropical trees adapted to seasonal climates have developed a strategy for rapidly moving water to newly expanding leaves in spring. These are what we call ring-porous

trees, among them oaks, hickories, ashes, elms, locusts, and sassafras, for example.

In these species, the earlywood is narrow and composed of large-diameter vessels to quickly transport water to expanding leaves. This earlywood zone is fixed in width. The latewood is composed of mostly strengthening fibers with smaller vessels and is variable in width. Rapidly growing trees will have comparatively wide rings and a larger proportion of strengthening latewood. Photo 2 is an end view of red oak. The weaker zone of large vessels remains fixed in width from one year to the next; but the latewood can vary, as seen in this photo.



RICHARD JAGELS

***Photo 2*—In ring-porous hardwoods such as this red oak, the earlywood zones, the narrow bands seen here, are comparatively fixed in width. The latewood zones, which are variable, are composed mostly of strengthening fibers with smaller vessels. Rapidly growing trees will have comparatively wide rings and a larger proportion of strengthening latewood, meaning that rapid growth leads to stronger wood.**

The consequence of this growth pattern in ring-porous hardwoods is that rapid growth leads to wider rings and stronger wood. Early settlers to New England encountered old-growth forests with oak trees that were soon deemed inferior to English oak. The wide-ringed English oaks, often growing in open hedgerows, were stronger than their narrow-ringed cousins in North America. As forests were felled and second-growth stands of oak developed in New England, those differences in wood quality faded.

Deception?

A little over a year ago, I wrote a column about a genetic-engineering solution that held great promise for re-establishing our lost American chestnut forests (WB No. 292). The breakthrough was a result of research at State University College of Environmental Science and Forestry (SUNY-ESF) where a gene from wheat (OxO) that degrades oxalic acid—the toxin produced by the chestnut blight—was inserted into American chestnut trees.

After several years in laboratory and greenhouse tests, the first transgenic trees were planted in isolated orchards in 2006. Following several more years of improvement, a version named Darling 58 was permitted for field trials in 2016, and SUNY-ESF began submitting documents to federal agencies, proposing deregulation of Darling 58 American chestnut trees.

Recently, I learned that The American Chestnut Foundation (TACF), which had been providing support for the SUNY-ESF research, withdrew its support for this transgenic project in December 2023. I contacted a friend, Mark McCollough, who is president of the Maine chapter of TACF, for his thoughts. He replied, "Last fall, Tim Klak from the University of New England and Han Tan [from the University of Maine] were the ones who discovered the Darling 58 was really Darling 54—setting off a cascade of events that led TACF to withdraw support for the USDA [U.S. Department of Agriculture] application for D58. Last year, there were emerging problems in field trials with slower growth, leaf yellowing, inability to produce homozygous trees, lower survival, and young trees getting the blight. At least some of the problem was the placement of the gene (a mistake made in the SUNY lab years ago), but also the promoter for the OxO gene caused it to be expressed continuously. It was believed that this was an energetic drain for the growing tree or even causing gene silencing in the tree. There were other behind-the-scenes problems as well with communications from SUNY, a plan to commercialize Darling 58, and lack of data sharing from SUNY to TACF."

Was this simply a mislabeling error that went unnoticed for several years or a deliberate cover-up in order to continue the federal application process? The answer may never be known, but it certainly is a major setback in the decades-long effort to bring back our once-magnificent American chestnut forests.

Societal pressures to "publish or perish," obtain monetary grants, and generally enhance institutional prestige all weigh heavily on today's university scientists. We see the negative consequences in faked-data journal articles that later need to be retracted. As a graduate of SUNY-ESF, I certainly hope that the Darling 54/58 mix-up is not a case of intentional cover-up. I am encouraged by seeing that, whether innocent or deceptive, the truth was finally revealed.

Dr. Richard Jagels is an emeritus professor of forest biology at the University of Maine, Orono. His Wood Technology column, which debuted in WB No. 20 in January/February 1978, is by far the longest-running department in WoodenBoat, *which is marking its 50th anniversary of publication with the current issue. Please send correspondence to Dr. Jagels by mail to the care of* WoodenBoat, *or via email to Senior Editor Tom Jackson, tom@woodenboat.com.*

The Canadian Canoe Museum

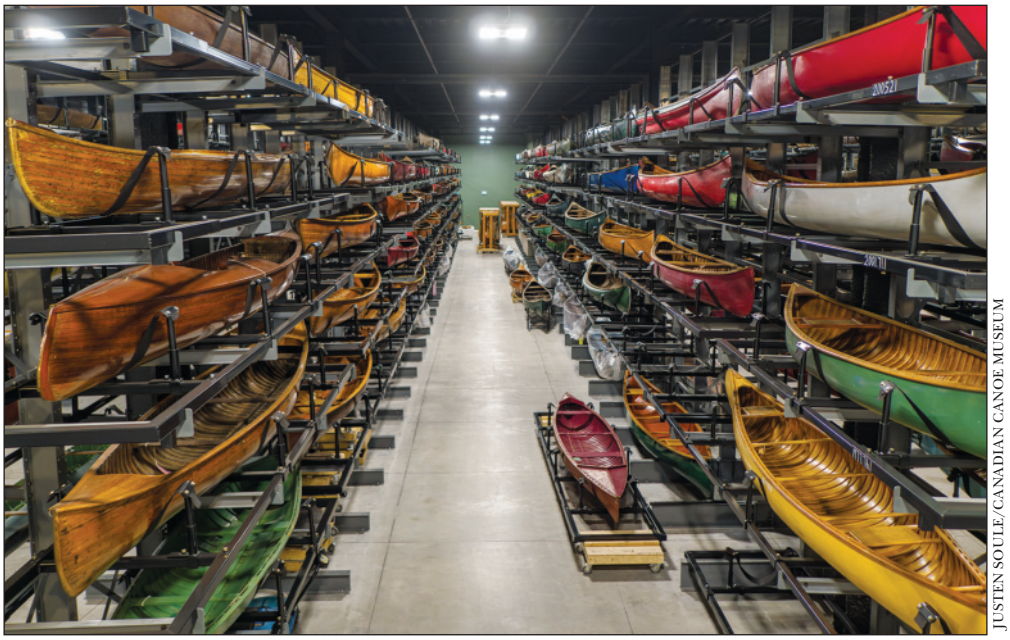
A worthy new home for the world's largest collection of canoes and kayaks

HARVEY GOLDEN

Reviewed by Harvey Golden

When people see that you have an old canoe, there is some unwritten rule in the universe that dictates that someone will soon offer you another. For Kirk Wipper, this first old canoe was a commercially built dugout, carved from basswood in the late 1800s by Payne Bros. of Warsaw, Ontario. A friend of Wipper's gave it to him in 1959, and he displayed it at Camp Kandalore, a boys' wilderness and canoe camp that he operated from 1957 to 1978. While he could not have known it at the time, this was the beginning of what is now the world's largest collection of paddled watercraft: the Canadian Canoe Museum.

By the mid-1970s, Wipper's collection had surpassed 350 canoes and was quickly outgrowing the facilities at the wilderness camp. The museum aspect of Camp Kandalore came into its own in 1975, with the founding of



JUSTEN SOULE/CANADIAN CANOE MUSEUM

***Opposite page*—More than 200 boats are on exhibit at the Canadian Canoe Museum's new building in Peterborough, Ontario, including a wide variety of kayaks. *Right*—A 20,000-sq-ft Collection Hall, accessible via public tours, houses the hundreds of boats that are not on permanent exhibit.**

The Kanawa International Museum of Canoes, Kayaks, and Rowing Craft, and three years later Wipper sold his interest in the wilderness camp.

Until now, the most significant and recurring impediments to this collection of more than 600 boats had been its locations and facilities. It had been improved over the decades, first with space being added at the wilderness camp, then with a big move to Peterborough, Ontario, where an old outboard-motor factory was sold to the organization in 1997 for $1. This brought the collection to an urban center long associated with canoe manufacturing, whereas the camp location had been in remote wilderness some 60 miles to the north. The old factory, as ideal as it must have seemed at the time, wasn't quite the perfect home.

After 10 years of planning, fundraising, and challenging setbacks, the Canadian Canoe Museum (CCM) broke ground in 2021 on a site located on Little Lake, part of the Trent–Severn Waterway just a mile and a half from the building that served as the museum's home for 26 years. Inflation being what is, the new facility cost more than the $1 of the previous one—by a factor of 43 million. By the time the new facility opened in May 2024, it had been fully funded, with grants coming from private, civic, provincial, and federal organizations: They recognized the importance of a world-class facility built to the highest standards for modern museums.

This new location is in perfect harmony with what one might expect for watercraft so closely tied to the outdoor experience. The new building is not only beautifully situated on wooded shoreline bordered by parks and walking paths but also it has accessible docks for canoeists and an adjacent canoe-storage house. The museum will offer both canoe rentals and guided outings in large voyageur canoes.

The CCM's new building is 65,000 sq ft, 20,000 of which are dedicated exhibit space, with over 200 canoes and kayaks on display. As with most museums, a large portion of the holdings are in storage, but the museum has ensured that the storage is visible, and accessible, with special tours offered for deep dives into the collections. This storage section is shockingly massive, with a 24′-high ceiling and five parallel passages walled on both sides with watercraft from around the world. The museum's lobby is well lit, airy, and uses natural wood construction and large windows to advantage. The balcony of the second floor opens to the lobby and has a large mechanical hoist: the CCM's heaviest canoe weighs about 1,600 lbs and is exhibited in a second-floor space.

CANADIAN CANOE MUSEUM

The modern museum building is in a lakefront setting, with docks, boardwalks, and a 2,500-sq-ft canoe house, with opportunities to get on the water.

HARVEY GOLDEN

Also part of the exhibited collections are many historic birchbark canoes and (just visible at left) dugouts.

In contrast to the lobby, the exhibit space comprises one massive, dark room with themed areas. The layout is vibrant, with superb well-lit displays and vivid backgrounds. The entrance hub of the exhibit hall displays a giant floor map of North America; the map has no names, borders, or highways, but shows what must be every navigable lake, river, and creek. Above it is a soaring static "whirlpool" of dozens of canoes and kayaks, all suspended and heeled over above the map. One can easily find a path through the exhibits or simply bounce around to whatever catches the eye. Just two short paths in the exhibit end abruptly, requiring the visitor to face them, then turn around to leave. Both are solemn and emotional displays: One serves as a memorial for campers who died in a storm on a lake (the canoe they perished in is exhibited), and the other honors the life

of Minik Wallace, a Greenlander who visited the United States in 1897 and whose story is told in the book *Give Me My Father's Body*; Minik's kayak is exhibited.

It is very easy for museums centered on objects to fall into the trap of overlooking the social and cultural aspects behind the focus, but these two critical elements are deeply entwined with the CCM and its exhibits. For a museum with objects from all over the world, this may seem a daunting task—and it is! But the CCM recognizes that every vessel in their collection has a story to tell: Every Tomoko, Umiahalurak, Vaka, Wiiswaawoot, Gahonwa', N'drua, Balsa, Wâbanäki Tcîmân, and Yaksumit; Every Chestnut, Struer, Grumman, Rushton, Nor-West, Prospector, and Dagger. The stories include those of survival, subsistence, triumph, injustice, innovation, trade, commercialization, healing, tradition, life, death, and renewal. The canoe as a metaphor for life is ever present.

While every canoe and kayak in the museum has a story, each boat is also a record of skills, technology, and resources coming together to form a required object. This is true for both the indigenous watercraft collections as well as the commercially manufactured boats, and the variety of canoe- and kayak-building tools and methods are highlighted throughout the exhibits. As many wooden canoe factories have closed in the past 100 years, many of their building molds have been preserved in the CCM's collections.

The museum is quintessentially Canadian. Nearly every country has ancient watercraft traditions that persisted into modern times, but it is hard to think of another country so large and diverse where paddled watercraft are held so closely to national identity. Reflected in the map of waterways in the exhibit space is how critical travel by water was in Canada before roads, rail, and aircraft. These same canoe routes also facilitated the colonialization and settling of much of Canada.

One easily senses the close connection the museum has with indigenous canoe and kayak builders. The museum doesn't just house old canoes and kayaks, it actively seeks to collaborate with the people and communities behind these craft. The museum has a 100-year-old Inuit kayak from Baffin Island, but it has also just commissioned and received another, built by Inuit from this region. In another example, a canoe built by Algonquin elders William and Mary Commanda in the 1970s is on display right next to one built by their grandson, Chuck.

While canoes and kayaks rank right up there with coffee and tea with regards to appropriated cultural

elements, their roots and diversity of form and construction are celebrated for their brilliance, and the living aspect of watercraft is highlighted everywhere, showing that the skills and knowledge behind them persist and evolve in a changing world.

Other aspects of the new facility include a conference hall, a research library and archives, and a large workspace for classes such as canoe- and kayak-building, paddle-making, and canoe restoration. CCM also sponsors canoe skills camps. Other amenities include a gift shop with a bookstore and a café with indoor and outdoor seating and even a fireplace.

Kirk Wipper died in 2011. I'm not sure he had any inkling of what the museum might become in the next decade or so, but through his remarkable abilities and sense of urgency and foresight, he laid the foundations for what it is today: A world-class museum celebrating art, culture, design, technology, and life on the water.

Harvey Golden is a boatbuilder who for many years has specialized in historic kayak replicas. His research, which has been extensive, has resulted in two books: Kayaks of Greenland *and* Kayaks of Alaska. *He lives in Portland, Oregon, where until 2023 he ran the Lincoln Street Kayak and Canoe Museum. For more information, see www.traditionalkayaks.com.*

Voices Across the Water

An intimate look at two canoe projects

Voices Across the Water, by Fritz Mueller, Sagafish Media/National Film Board of Canada, 84 minutes. Streaming on www.nfb.ca and www.tubitv.com.

Reviewed by Tom Jackson

To have grown up in a remote mountainous region of British Columbia was to have the National Film Board of Canada on our single television station as a reliable source of insight from elsewhere in the vast country. The films were always of high quality, if sometimes very quirky. I was reminded about it all

recently when I received a notice from the organization about a new film by The Yukon filmmaker Fritz Mueller of Sagafish Media. His *Voices Across the Water* focuses on two traditional canoe builders from radically different areas and traditions. The film intertwines their stories like a cultural long-splice: at first it seems as though it could never work, but in service it somehow proves more than admirable.

It was The Yukon that brought these threads together. One of the builders is Wayne Price of the Tlingit people in Haines, Alaska, who share a broader cultural heritage with the people of the rainforest coasts of southeast Alaska and British Columbia. The other is Halin de Repentigny, who grew up in Montréal, Québec, and moved to Dawson City in 1981 to live off the land as a trapper. Price, who is also a highly skilled woodcarver in his culture's iconic style, was evidently invited to The Yukon to build a cedar dugout canoe in a cultural exchange. De Repentigny, a painter, took up birchbark canoe building out of interest after arriving in the province, and that type of canoe holds its own cultural meaning for his French-Canadian forebears.

Halin de Repentigny builds birchbark canoes in Dawson City, The Yukon.

The film opens with the landscape itself as a character, with beautifully filmed sequences of interior Yukon streams and lakes for the birchbark canoe and the misty saltwater coast of Alaska for the dugout. The film is done entirely without narration—for both boats, the sequences begin with the hunt for materials. This technique can be somewhat frustrating for someone looking for specific information and facts. But the film rewards patience, and in its own way it is an incredibly intimate look into these people, their lives, and their work. From the outset, the viewer enters the canoe-builders' world on their terms.

De Repentigny is shown at work on an oil painting; online, I found that he is an artist of considerable note in Canada who now spends half his time in Argentina. Except for the hard labor of felling trees and stripping bark from them, he works alone. "I wanted to do my passion—what I like," he says. But it is solo work. "I hate it, people helping me," he says, with a bit of salty language that might trouble those of sensitive dispositions. "I got a vision. You know what you're doing, and people try to

help and they do anything but helping." Nevertheless, he shares tips with a young neighbor who was inspired to build his first canoe, and he clearly treasures time on the water with some certifiable Dawson City characters, many in toques and one in a top hat.

Price, a gentle soul, works with incredible patience alongside his apprentices, especially one very game young woman, Violet Gatensby. The amount of work involved in building a dugout canoe, from felling an enormous cedar tree to adzing out its interior, is staggering. It is the work of a community. People come and go during more than two months of construction under a large event-style tent. Price is inclusive; he works them all in in some manner, even if it is to simply explain the work. But his delight in watching Gatensby's emerging skill and her own dedication is radiant.

The degree of sophistication in the hull form of the Tlingit canoe is awe inspiring. Chainsaws are used to fell the tree and to rough cut its interior, but other than that the works is done largely with shipwright adzes and elbow adzes. Small-diameter holes bored at intervals in the finished exterior receive 1″-long dowels that serve as depth gauges when adzing out the interior. The hull is carved with its later expansion in mind. Again, this is the work of a community. Crews fill the upright boat with water. Rocks heated over an open fire are brought to the boat with the modern aid of steel carrying racks. Steam flies up when the rocks are lowered into the water, and a heavy tarp drawn over the hull holds the heat. With enough hot water, time, and athwartships braces to induce bending, the hull splays out at the gunwales amidships from its starting beam of 2′11″ to 4′2½″, at which point Price's eye tells him that the hull looks right; the boat is done.

This film's immersion in the process is impressionistic—this is not a how-to video. But the impression is powerful. How the original builders did any of this work of moving fantastically heavy things without skidders and chopping away massive quantities of wood to such incredibly fine shapes without steel tools remains a testament to ingenuity and skill.

"The connection to the land, the connection to the water, is so profound," Price says. He had only a brief time with his own mentor, who died, or "walked out in the forest," before he could pass on much of his knowledge. "So much of that is all gone. The boatbuilding is on a resurgence, but not really hanging on by very much. I've had quite a few apprentices, I have yet to see one go out and get a log and make their own dugout. I hope I do. You know, if I walked out into the forest, all that would be lost again."

Wayne Price of the Tlingit people in Haines, Alaska, worked with volunteers in The Yukon to demonstrate dugout canoe carving.

For de Repentigny, too, the look into his process is entirely impressionistic. So much of the process is organic and resourceful, from lifting moss to reveal spruce roots to identifying a promising birch tree or clear spruce for the gunwales. When he rolls out his bark on a waist-high workbench, he admits it doesn't look like much. Sticks stuck into holes in the benchtop planks guide the shaping of the sides, and, remarkably, it does all come together as an organic sculpture.

At first the two builders, who apparently never met, appear to have absolutely nothing in common. Slowly it is revealed that they are both artists in addition to being canoe builders. Where the long splice comes together admirably is in the very deep sense of purpose that they share. Each has an artist's inclination to follow a craft wherever it leads, enrich their knowledge of it, and create something that transcends the object itself.

Tom Jackson is WoodenBoat*'s senior editor.*

Voices Across the Water may be viewed for free within Canada on the National Film Board of Canada website, www.nfb.ca. It is available for public viewing elsewhere at www.tubitv.com.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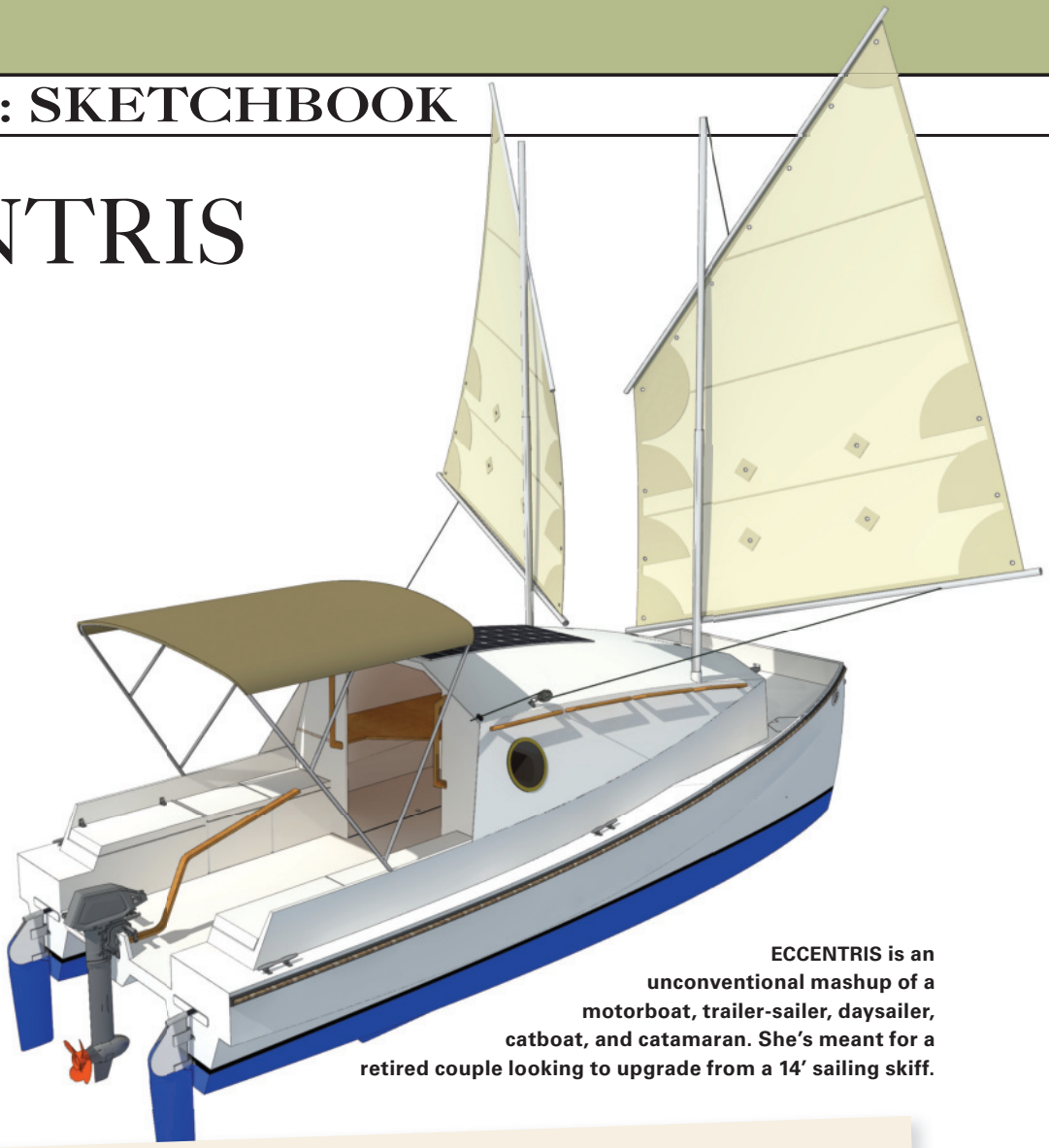
ECCENTRIS

A motor-trailer-daysailer-catamaran-catboat

by JF Bedard



ECCENTRIS is an unconventional mashup of a motorboat, trailer-sailer, daysailer, catboat, and catamaran. She's meant for a retired couple looking to upgrade from a 14′ sailing skiff.

Dear JF,

I was surprised by how much I liked HUCK'N'JIM, the river-raft-styled pontoon boat concept presented in WB No. 298. Pontoon boats on the Connecticut River out here in western Massachusetts have been the bane of my existence when sailing, but your sketch opened my eyes. My wife and I are planning to graduate to bigger waters, such as Lake Champlain, and need something more comfortable than our 14' home-built sailing skiff—something at least 17' LOA.

Do you have any suggestions for a design that might use a similar hybrid drive for propulsion and might even have some modest sailing abilities? I'm a 74-year-old with funky legs trying to please a crew who doesn't like "tipping!"

I'm hoping to keep the boat within legal trailering width, which somewhat limits the length. I'm trying to sell it to my wife as a "floating summer cottage" and I'm flirting with a couple of used Com-Pac Sun Cats as the bare minimum. Their mast-tabernacle system looks about right for an old guy. I really like shallow draft but don't like a centerboard trunk dividing both the cockpit and cabin.

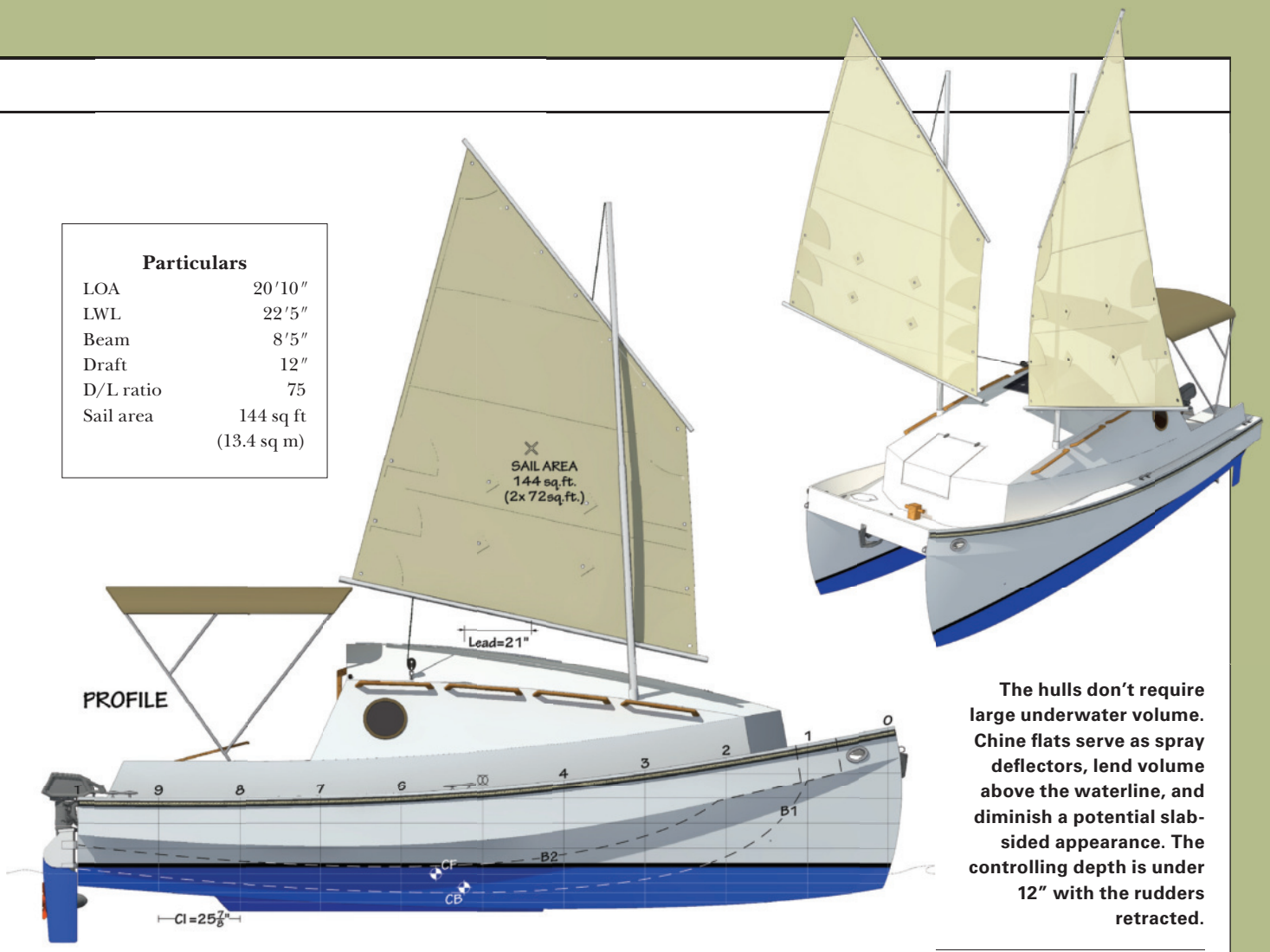
My wish list includes:

- Tabernacle mast(s), roller-furling jib (if needed), and a mizzen that can serve as a riding sail.
- An anchor that can be set and raised from the cockpit.
- Bulwarks for security on deck.
- A stern-mounted boarding ladder that can be deployed from the water.
- "Single level living," as much as possible.
- Overhead handholds from the V-berth to the cockpit—possibly running the whole length of the cockpit as a base for a bimini or enclosure.
- Hand holds everywhere, stem to stern.
- Your cool hybrid power scheme with an electric outboard.
- Solar chargers for house batteries.
- Accommodations for two and seating for four belowdecks.
- A minimal galley, a porta-potty or Airhead, and a solar shower in the cockpit

There must be a growing group of baby boomers who want to stay on the water, one way or the other.

—Frederick H. "Dan" Pratt
Hadley, Massachusetts

Particulars	
LOA	20′10″
LWL	22′5″
Beam	8′5″
Draft	12″
D/L ratio	75
Sail area	144 sq ft (13.4 sq m)



The hulls don't require large underwater volume. Chine flats serve as spray deflectors, lend volume above the waterline, and diminish a potential slab-sided appearance. The controlling depth is under 12" with the rudders retracted.

Dear Dan,

I enjoyed reading of how you envision your future outings and what kind of platform would serve that purpose best. Your criteria, to me, made clear that a motorsailer would be a good candidate for you. And what better fit for an electric power plant that is somewhat limited in range than a set of sails, which has an unlimited one, while the propeller removes the tedium of going upwind or waiting for the Greek god of the winds, Aeolus, to keep up his side of the bargain? There are a variety of motorsailers out there, but in my mind, those are voluminous cruisers above a certain size with intricate accommodation. What if I drew a motorsailer that's trailerable, mostly for daysailing, with a modest cabin for protection from the elements and the occasional overnight? She'd be a motor-trailer-daysailer.

I ran that idea by Editor Matt Murphy and he said, "Yeah, I'm imagining it with the cockpit conviviality of a cat" and I immediately proceeded to draw a catamaran. I can see Matt from here shaking his head and saying, "I meant catboat!" I did incorporate elements of this fine traditional craft as well; a motor-trailer-daysailing-catboat-catamaran. Now that's a cool concept with lots of wiggle room.

Microcruiser aficionados who are reading this probably find a certain familiarity with the concept I've drawn. Everyone else can take a few minutes to check out the microcat MISS CINDY, designed, built, and sailed by out-of-the-box designer-builder-sailor Tony Bigras. Tony sailed his 16-footer 4,500 miles from the Sea of Cortez to Florida via Nicaragua and Cuba in 2008–09 and wrote an ebook about it, which I read avidly back when it was published. MISS CINDY, along with Matt Layden's LITTLE CRUISER and Eric Henseval's SOURICEAU heavily influenced what I thought of at the time as the perfect cruising sailboat. I've revisited Tony's site lately, and it was still fresh in my head when your email landed in my inbox. A respectful wink would be appropriate I thought, so I borrowed the big sheer sweep, stepped chine above the waterline, and aesthetically pleasing cabintop profile of MISS CINDY. Then I went to town. The result is ECCENTRIS, an unconventional and slightly strange motor-trailer-daysailer-cat.

The Concept

First, the overall dimensions: In order to trailer legally in most locations, a boat is required to measure a maximum of 8′6″ in overall beam. You mentioned 17′ as a bare minimum length, so I'm going to extrapolate that you'd be comfortable pulling a very light 22′ boat. Since your wife doesn't like "tipping," a multihull makes sense and lends itself naturally to having all accommodation elements on a single level.

The length overall of 22′ is long enough to balance a cabintop height that will allow comfortable sitting without being overbearing in profile. You mentioned an easy rig to set up, via a tabernacle system. Two side-by-side masts of modest size, as

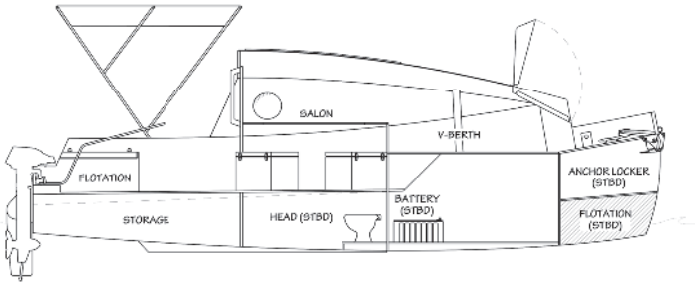
Bigras' MISS CINDY has, is even better in my opinion. With a pair of small balance-lug sails, each mast weighs a little over 10 lbs, which will be a breeze for you to slide down the mast tubes.

Because she's a motorsailer, pointing ability is not critical, so there is no real need for a keel; she'll go reasonably well to weather without one, especially with a little push from the outboard. I sprinkled in a few catboat elements and modified them freely, and that resulted in a foredeck surrounded by a bulwark.

Hull

Starting with the basics: There is no reason for a boat of this size to have a structure of wood and fiberglass sheathing heavier than 1,000 lbs, in addition to roughly 500 lbs of ancillary systems such as the outboard motor, batteries, and rig. That puts us at a displacement of roughly 1,900 lbs loaded, give or take a few hundred pounds. By maximizing the waterline length (of course!) we get an extremely low displacement-to-length ratio of 75, to produce a hull that will move very easily through the water.

The bottom of each sponson is flat, yet narrow, because we don't need large underwater volume. The outboard topsides are split close to the waterline by chine flats (thank you Tony!) that will serve as excellent spray deflectors, establish volume in the sponsons above the waterline, and visually cut the slab-sided plywood panel. In our case, I didn't need it on the inboard side of the hulls because the spray will not make its way on deck. I therefore let the inboard topsides run all the way to the bridge deck, which is high at the bow.

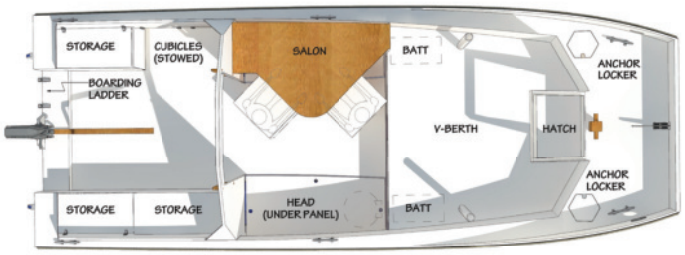


The cockpit has standing headroom under a Bimini and leads into an open cabin on the same level.

The run—meaning the after end of the hull's bottom—is typical of multihulls in that it doesn't come back up to the waterline at the stern, resulting in a submerged transom that keeps more underwater volume aft. Navigational depth is under 12″ with the flip-up rudders retracted, so you can beach her anywhere.

Layout

The deck arrangement is driven by the cabintop. I wanted standing headroom in the cockpit under the Bimini and an open feel to the cabin, which serves as a shelter from sun, wind,



There is a large berth forward. Angled seating at the saloon table places the occupants' bodies in the portion of the cabin with the greatest headroom.

and rain; it's a good place to take a nap and have lunch. The port hull's volume is sacrificed to storage. A large, removable panel exposes a head to starboard, the user getting privacy via a wrap-around curtain. There is a large berth forward and a diagonal saloon flip-up table to port. The reason for the unconventional angle of the latter is to keep the occupant's upper body within the area of the cabin with maximum headroom. During meals, this arrangement would give the feel of sitting adjacent to each other at a square table in a restaurant on Valentine's Day. When stowed away to open up the sole plan, the part that stays up becomes a navigation station or work desk.

Instead of fixed seating, I replaced the port-side cockpit seat with two boxes that can be unlatched and moved around. Secured in the cockpit, they'd look very similar to the starboard-side seating but would be moved to the cabin during meals or at anchor. One could replace these boxes with similar-sized off-the-shelf coolers. The after end of the cockpit is wide open, which allows you to climb up or down the stern very easily. If the boat is beached you'd be able to walk right off the stern. If anchored in deeper water, you can use the telescoping ladder to port. For your peace of mind, you might latch a lifeline across the after end of the cockpit while underway.

One can walk around the cabin via the side deck, using the plentiful handholds, to the rather spacious foredeck, which is organized around an anchor roller, samson post, and a couple of self-bailing anchor lockers. Alternatively, you could crawl over the berth and open the large hatch to access the anchor directly from the cabin. There's no need for a door in the cabin; a snap-on canvas partition will do a great job of keeping the no-see-ums out, give you some privacy at night, and mitigate stuffiness in the cabin.

Rig and Sail Plan

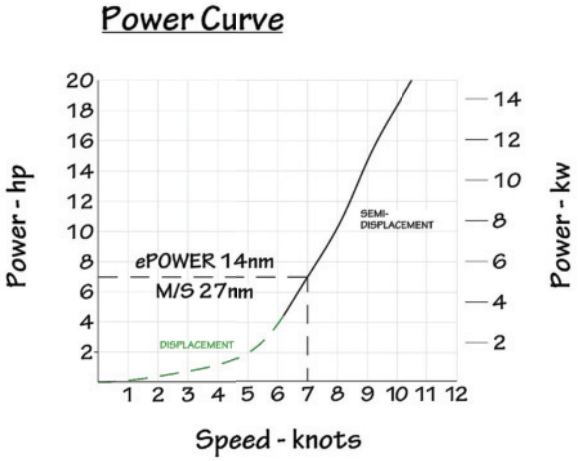
The beauty of keeping the boat light is that it requires very little canvas to move it. And nothing goes to windward like an outboard. Jokes aside, a couple of 72-sq-ft sails bring the sail-area-to-displacement ratio to 15, which is excellent

for your needs. This amount of canvas will keep you out of trouble and remain manageable in just about any conditions; there's very little danger of capsizing, even if you tried. And on days that you don't feel like sailing, just leave the sails on the trailer and motor around. The longitudinal distance from the center of effort of the rig to the center of lateral resistance underwater, which is called the lead, is 1′11″, or 9 percent of the LWL. That figure is on the high side for a multihull and on the low side for a traditional catboat, thus striking a good balance. A couple of reefs will increase the versatility of the rig.

Power

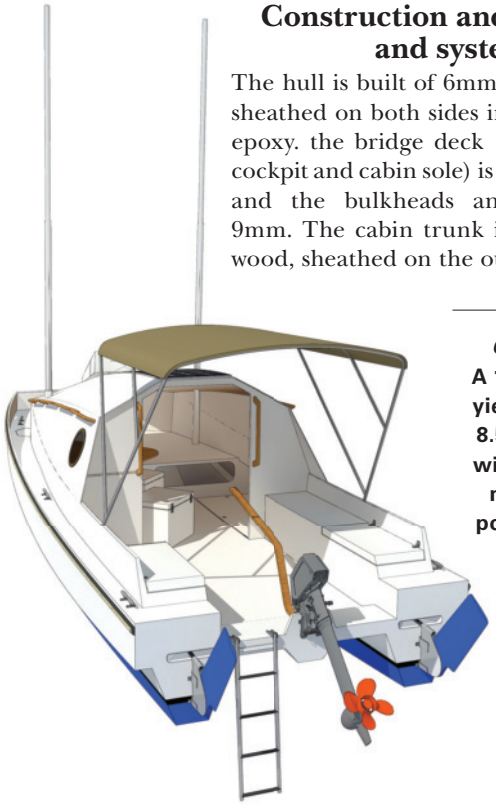
Speed prediction gets a little foggy when analyzing catamarans because they punch right through their theoretical hull speed before lifting out of the water, and the narrower the sponsons the truer this is. As a basis, we can safely say that ECCENTRIS will reach 6.2 knots, a speed-to-length ratio of 1.34 (the traditional hull speed) with roughly 4 hp. You can see that, as usual, the speed requirement curve is very tame at low speeds and gets seriously steeper above 6 knots. I originally thought of using roughly 20 hp (15kW) to get a top speed of 10.5 knots. In reality, reducing the outboard size by 50 percent to about 10 hp (8kW) only cuts 2 knots from the top speed. The expense and weight just might not be worth it.

Using 10 hp as my power source, I'd get 14 nautical miles out of running it at 70-percent throttle, with no sails up, which is a good range for a typical day out. Now, if the sails are up and half that power is generated by the wind, my range increases to a very comfortable 27 miles—and that's with a single 8kW outboard motor powered by two 5kW lithium batteries. We have to be careful about battery capacity, keeping in mind that ECCENTRIS has a displacement-to-length ratio of 75. That is extremely low, and only possible because we are using wood-epoxy and keeping systems to a minimum, so here you'll want to stay away from lead batteries.



Construction and scantlings and systems

The hull is built of 6mm okoume plywood sheathed on both sides in 6-oz cloth set in epoxy. the bridge deck (which is also the cockpit and cabin sole) is of 18mm okoume, and the bulkheads and seat tops are 9mm. The cabin trunk is all in 6mm plywood, sheathed on the outside. Douglas-fir cleats and structural stringers under the seats and berths add stiffness without much added weight. There are foam-filled crash boxes under the anchor lockers. The twin rudders are linked via a tie bar that runs inside a little step-up box on the cockpit sole to declutter the space. The tillers pass through the transom, which is made watertight by a rubber boot. In turn, the tie-bar is connected to a tiller amidships.



Opposite and Left– **A 10-hp (8kW) motor yields a top speed of 8.5 knots. The range with this motor is 14 miles at 70 percent power; motorsailing will increase this considerably.**

I hope you like my little motor-trailer-daysailer-cat-cat experiment. I think she's got a lot of charm and is quite practical on the water, and she certainly deserves to be called ECCENTRIS, which, as noted above, is defined as unconventional and slightly strange. On the practical side, the stability and ease of use might help you enjoy many more years on the water.

Happy motorsailing!

JF Bedard is a graduate of the Westlawn Institute of Marine Technology. He owns Bedard Yacht Design (www.bedardyachtdesign.com) of Tarpon Springs, Florida.

Please send concept proposals for Sketchbook to sketchbook@woodenboat.com.

Marta

A classic 26' gaff sloop

Design by Nat Benjamin
Review by Mike O'Brien

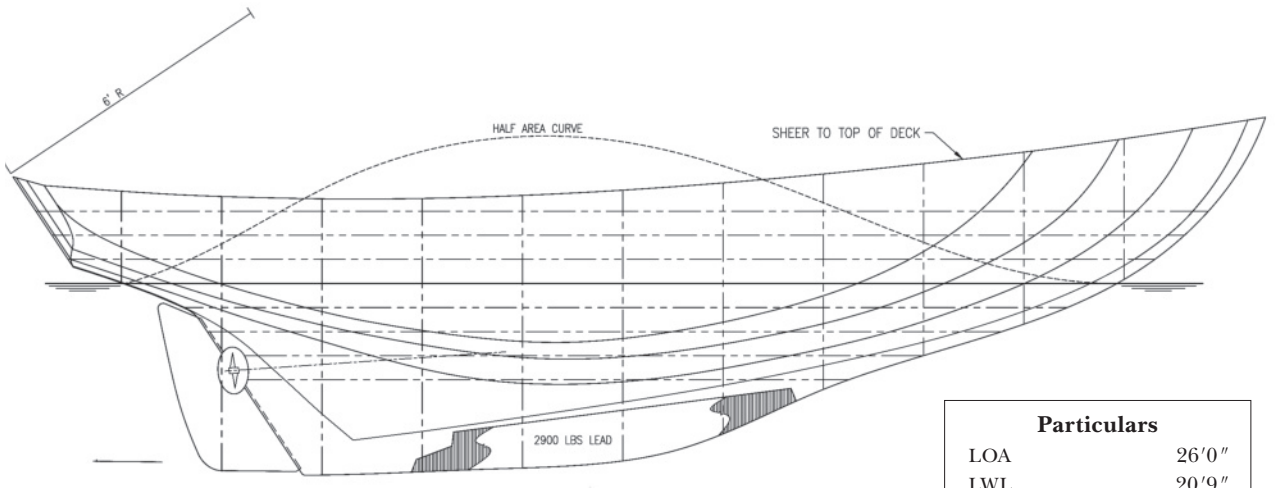
In the autumn of 2022, Nat Benjamin met with partners Ross Gannon and Brad Abbott of Gannon & Benjamin Marine Railway to discuss a new design that might "fill the gap" between Gannon & Benjamin's popular 21′ Bella class and their Holmes Hole 29. The parameters for Marta came from that meeting.

This new sloop measures 26′ LOA. She has a full keel of moderate draft and a comfortable self-bailing cockpit that seats six. The gaff-headed mainsail and self-tending jib can be set, trimmed, and lowered easily from that cockpit. Auxiliary propulsion comes from an electric motor, which can take its power from the sun.

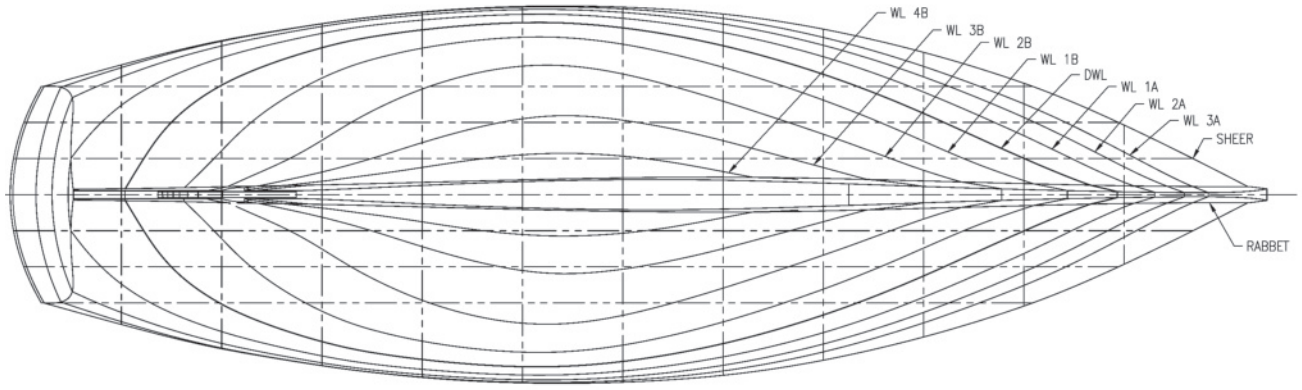
Marta's hull lines show a lot of pleasing shape. The sheerline sweeps down smoothly to Station 7, where it turns up strongly and heads aft to meet the transom. This sheer will never appear to go flat aft, no matter from what angle we might view it.

The body plan reveals sections that describe relatively firm bilges, which give Marta a fair amount of form stability. This, combined with a 40-percent ballast ratio, helps her stand up to a breeze and stay dry when punching into a head sea.

***Above*– Gannon & Benjamin Marine Railway has recently launched hull No. 1 of its Marta class, co-proprietor Nat Benjamin's design No. 100. This full-keel 26′ gaff-rigged sloop is for daysailing and overnighting.**



Particulars	
LOA	26′0″
LWL	20′9″
Beam	7′10″
Draft	3′11″
Displacement	7,561 lbs
Sail area	380 sq ft



Marta's sheerline will never appear to go flat aft, no matter from what angle it is viewed. The boat has a 40-percent ballast ratio.

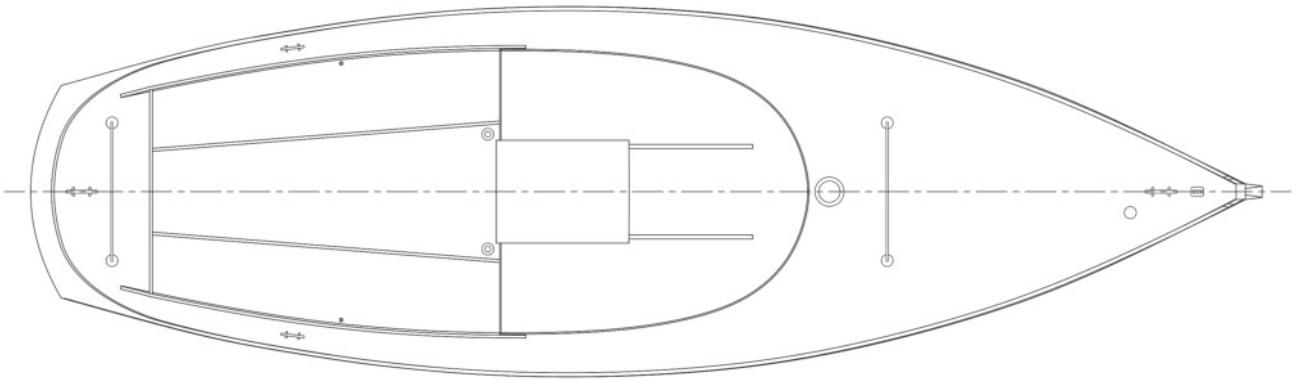
The well-proportioned gaff-headed mainsail suits Marta functionally and aesthetically. Its gaff is sufficiently peaked up to discourage it from sloughing off to leeward as we beat to windward. This desirable trait is enhanced by the gaff's relatively short length and an efficient angle of pull for the peak halyard, which is permitted by a mast that extends well above the height of the gaff jaws.

As its name suggests, the self-tending jib cares for itself as we come about. The jib's club, which is tacked down to a pivot on the foredeck, ensures that this 90-sq-ft sail automatically relaxes a little as the sheet is eased for sailing off the wind. As we sheet it in for working to windward, the jib will flatten itself slightly. This seems to be an improvement upon self-tending jibs with their clubs or booms tacked directly to headstays, as they sometimes set too flat when running or too full when sailing hard on the wind.

> This handsome gaff sloop from Nat Benjamin's drawing table sails fast and easily.

Marta's standing rigging is simple. Sufficient drift to the shrouds eliminates any need for backstays.

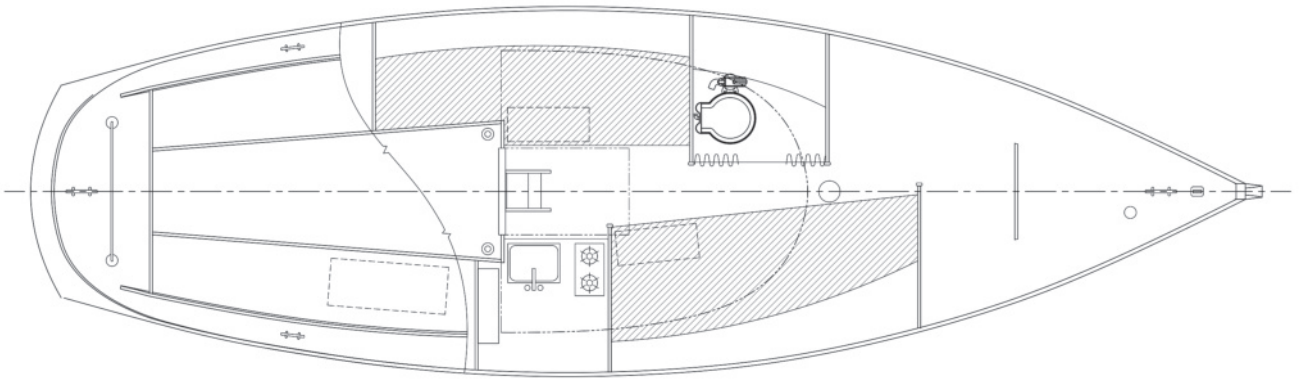
The design elements described above work well together. Benjamin tells us: "I have sailed Marta in a variety of conditions. She is nimble,



The crew sits at deck level with backs against gently curved coamings. This cockpit sole is well above the load waterline, for self-bailing.

fast, and well-behaved." His fellow designer, Antonio Salguero, skippered the sloop in the 2023 Vineyard Gaff Rig Race, and found that "Marta showed her curved raked transom to many larger boats." Although pleased with this success on the race course, Benjamin points out that the boat's main purpose is "to bring adventure and enjoyment" to those who sail her.

An Electric Yacht Quiet Torque 10 propulsion system provides auxiliary power when desired. It will push this sloop along nearly silently

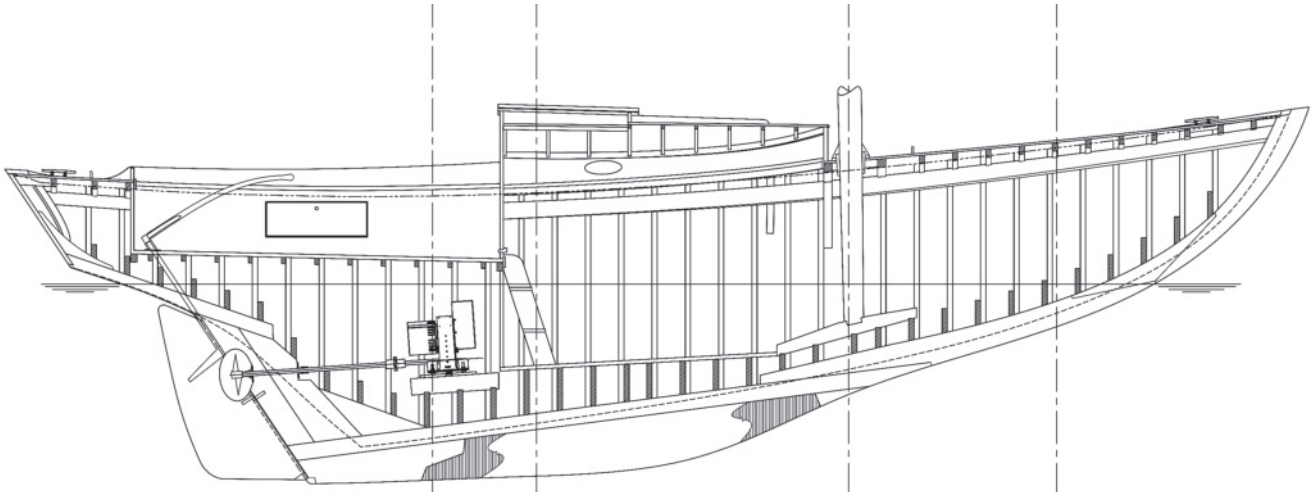


The cabin has two single berths and a galley counter. The small head rests behind a curtain.

at about 5 knots, and a solar panel or a convenient dockside outlet can charge its batteries.

Marta's cockpit sole rests well above the load waterline, which ensures reliable self-bailing. Her crew sits at deck level next to the gently curved coamings. This arrangement provides good visibility and comfort.

Down below we'll find two full-sized single berths and a basic galley counter. The small head rests behind a curtain. Most sailors understand that true privacy doesn't exist aboard

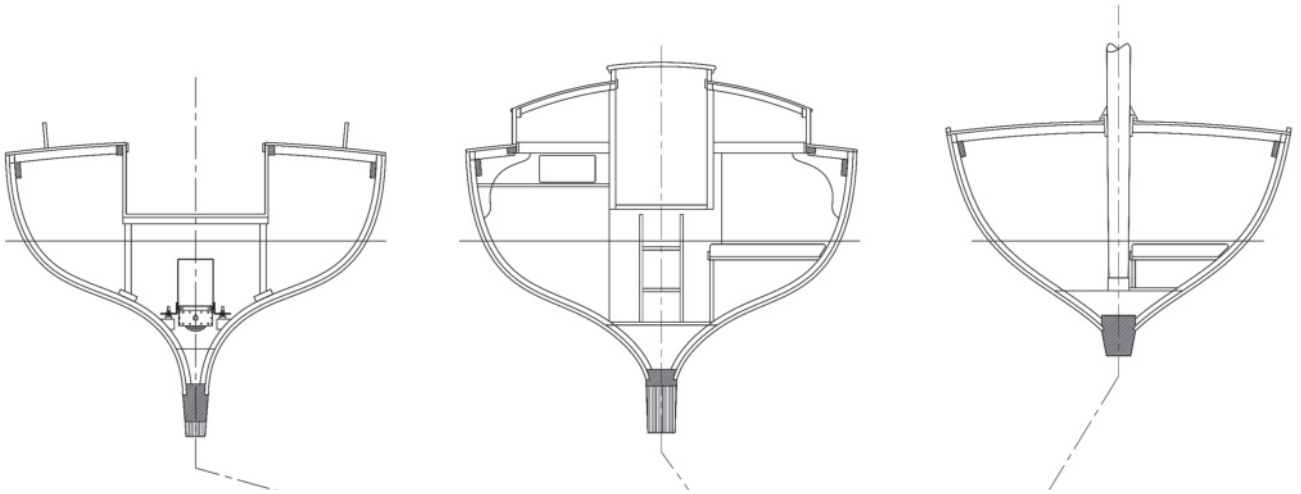


MARTA's hull is built plank-on-frame, which is Gannon & Benjamin's specialty.

boats of this size and type.

The Gannon & Benjamin shop built Marta's hull in traditional plank-on-frame fashion. Some structural timbers are of purpleheart, and the stem is live oak. Her first several bottom strakes, and sheerstrake, are of wana, a tropical hardwood; the rest of the planking is cedar. Her cabin and cockpit coamings come from silverballi.

Benjamin notes that his crew finished this pocket cruiser with enough brightwork to "highlight" the various woods, but not so much as to "make



The sections show relatively firm bilges, which give Marta a fair amount of form stability. The structural timbers of hull No. 1 are of purpleheart and live oak. Her first several bottom strakes and sheerstrake are of wana; the rest of the planking is cedar.

her difficult to maintain." They painted the deck and cockpit, and left the toerails bare. He sums up his feelings about Marta's purpose: "I envision a couple or small family venturing forth on overnight trips, or cruising down the coast. She'll get you there and back, finest-kind."

Mike O'Brien is boat design editor for WoodenBoat.

Designer Nat Benjamin can be reached at 30A Beach Rd., Vineyard Haven, MA 02568; 508–693–4658; npb1837@gmail.com.

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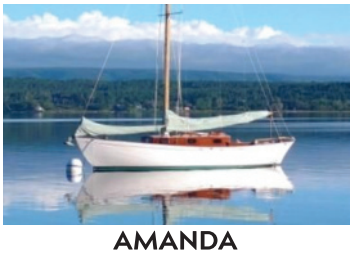

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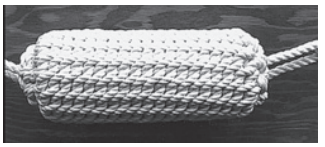
SHAW & TENNEY, Orono, Maine. Traditionally handcrafted wooden masts and spars since 1858. 800–240–4867, www.shawandtenney.com.

Supplies

HAVEN 12 ½ complete high-quality bronze hardware sets. See our display ad elsewhere in the issue. For our free catalog, contact us at J.M. Reineck & Son, 781–925–3312, JMRandSon@aol.com.



SOFT COTTON FENDERS AND classic knotwork. For catalog, send SASE to: THE KNOTTED LINE, 9908 168th Ave. N.E., Redmond, WA 98052-3122, call 425–885–2457. www.theknottedline.com.

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CLASSICBOATCONNECTION.COM Your one-stop source for all your classic boat restoration needs. Call 507–344–8024, or e-mail mail@classicboatconnection.com for free catalog.

THE ORIGINAL SINCE 2001. The smallest composting toilet in the world! EOS, P.O. Box 5, Mount Vernon, OH 43050. www.airhead toilet.com, 740–392–3642.

COPPER FASTENERS and riveting tools, Norwegian and English boat nails, roves/rivets, rose and flathead, clench, threaded, decoration, and more. 50+ sizes and types, ⅜″ to 6″. Your leading source since 1987. FAERING DESIGN, Dept. W, P.O. Box 322, East Middlebury, VT 05740, 800–505–8692, faering design@gmail.com, www.faering designinc.com.

Tools

Wood

WWW.DIAMONDTEAK.COM—True teak wood. Planing, sanding available. Quarter-sawn teak for decking; tongue-and-groove; veneer; custom work. Also mahogany and Spanish cedar. Highest quality. We ship worldwide. 215–453–2196, info@diamondteak.com.

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TEAK, MAHOGANY, PADAUK, purpleheart, white oak, teak decking, starboard. Complete molding millwork facilities. Marine plywood. Custom swim platforms. SOUTH JERSEY LUMBERMAN'S, 6268 Holly St., Mays Landing, NJ 08330. 609–965–1411. www.sjlumbermans.com.

BEAUTIFUL ATLANTIC WHITE CEDAR. 4/4, 5/4, & 7/4 plus 6/4 quarter sawn. Beautiful, clear stock. ashudak@gmail.com, ashudak lumber.com, 802–527–9802.

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Boats For Sale

THE PASSING OF PAUL BRYANT, Riverside Boat Company Newcastle, Maine has brought the family to the decision to sell several boats. Please contact me for details on what is available in what condition. coastwiser@gmail.com.

WELSFORD NAVIGATOR. 15′, gunter rigged yawl, hinged mast, built 2019, epoxy plywood contruction. $10,500. Excellent condition. Includes 2019 trailer, new covers, like-new sails. Antifouled bottom. Optional electric outboard available. Located New Haven, CT. machesney@gmail.com

2012 FRENCH & WEBB FW 37. Composite wood hull is epoxy laminated of four layers of fir, red cedar, and mahogany that is encapsulated in structural E-glass. Skin is reinforced on laminated ribs and backbone. Stability from a 4,400 pound fin keel balancing a 46′ carbon fiber rig. Fully battened main is boom furled. Self-tacking headsail ensures easy handling and exceptional performance. Volvo diesel with sail drive. Decks are sprung teak on composite substrate. Cabin and cockpits are varnished teak. Flawless condition; inside and out! $495,900. Pocasset, MA. McCann Yachts 508–771–8447.

"ROZINANTE" 1997. Cold-molded. Yanmar diesel. Located mid-coast Maine. $55,000. Text/call 307–690–7101.

2005, 30′ "ILONA." This beautiful, seaworthy head turner of a cruising boat was designed and built by the renowned wooden boat builder Gannon and Benjamin. Equipped with a BMW, Yanmar marine 260-hp engine she cruises at 16 knots with a range of over 200 miles. Below deck are sleeping accommodations for two, with sink, stove, refrigerator, water heater and head. She is the perfect cruising boat for an adventurous couple who want comfort, safety and style. Her spacious cockpit is ideal for spending a day on the water with friends and family. She is the winner of The 2024 WoodenBoat Show's Best in Show "Owner Maintained Power Boat." "ILONA" comes with her 8′ lapstrake, rowing/sailing tender, cradled on the stern. $189,000. 203–216–1771, Norwalk, CT. edsegen@optonline.net. More photos: https://woodenboat.com/boats-for-sale/2005-30-ilona.

Boats For Sale
continued

PRE-1905 WARREN COLE ADIRONDACK GUIDEBOAT. Restored in ME by Jonathan Minott (seen in WB "Launchings" July/Aug 2009). Includes new yoke, decks, gunwales, seats, and caning. New Shaw & Tenney oars and locks. LOA is 16′, 42″ beam. Flag Blue topsides with porch ceiling blue inside. It's a beauty. Used only a few times. Never rowed a boat that slips through the water so effortlessly. Use it every day or hang it from your rafters. Call or text 603–496–1907. $9,250 or best offer.

M/V "KATH-ELL" 1947 CONVERTED TROLLER $38,500 or best offer. Designed and built by C.A. Malcolm in Gibson B.C. In great condition. Powered by a Volvo MD 47B Diesel. For more information and photos, go to woodenboat.com/boats-for-sale/mv-kath-ell-1947-converted-troller-44500. 360–298–4705, cumming@rockisland.com.

NORWALK ISLAND SHARPIE SLOOP. 29′ strip planked Norwalk Island Sloop. Designed by Bruce Kirby and built for him at Jespersen Boat Builders in Vancouver. Draws 2 feet with board up. 9.9-hp 4 stroke in well yields 6 knots; self tending jib and reaching genoa. Equipped for extended cruising. In perfect condition. Email for photos, details, inventory. Located Fort Walton Beach Florida. jdmhamilton@yahoo.com; 856–263–8100.

ORIGINAL 1905 HERRESHOFF, New York 30. Placed first in a New York Yacht Club Race in 1924; then raced with two yachts from her original fleet in the Bristol regatta 100 years later. Restored mahogany raised cabin, white oak frame, double-planked, with yellow pine over Cyprus. Bronze and copper fittings, 43.5′LOA, lead ballast. Restored as a Bermuda rig. Gaff rig availability. For sale by owner contact tabasco@ny30–7.com.

'66 CENTURY RESORTER 17. Mahogany inboard. New varnish & bottom paint. Newish 383 (500-hp). 50 mph. New upholstery. New cockpit sole. New fuel tank. New gauges. New: starter, alternator. New: injectors, plugs, wires, rotor, cap, coil, temp sensor. Rebuilt transom. New king trailer. Ski tow-post. Nearly new custom cover. 5200 Bottom w/glass-epoxy over. Custom teak swim step. Serious inquiries only. $16,000. Jim Llewellyn, 206–842–4552, jim.llewellyn47@gmail.com, cell/text 206–450–0101. Bainbridge Island, WA.

"RUFFIAN" 40′ J. ERVIN JONES, classic Maine lobsterboat. 1979 mahogany on oak. Great shape. ssmsnow@yahoo.com for photos and details.

RHODES 18, all original hardware, new mast boom sails, and more. Please email or call for details. $17,000. Steven 401–862–2736. scasella1851@gmail.com.

1936 "TUMLAREN," #59 SVEK, 2022 Winner *WoodenBoat* "Best in Show." Fully restored with Gannon & Benjamin: keel refastened, spars 100% re-rigged, etc. In storage 40 years. Now sailing again. Custom trailer. p_otton@yahoo.com. Harwich, Cape Cod, MA.

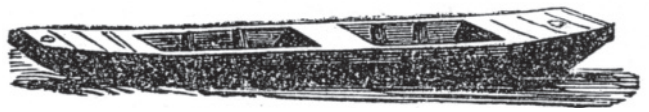
Boats For Free

ALBURY SLOOP "LITTLE M" built in Abaco Bahamas 23′ replanked with cypress four years ago cast iron keel. Have mast and booms. Ran out of wind needs deck and cockpit rebuild. Email captnpete50@gmail.com or call 772–359–6920. Ft. Pierce, FL.

"BEAUTY," a 1941 Stephens 36′ motor yacht in San Francisco, needs a caretaker. Reportedly the last recreational boat made by Stephens before changing to war production and likely only one of about 8 of this model produced. Comfortable layout with nice blend of protected pilot house, enclosed cabin, and al-fresco stern lounge. After removing seized engines and leaking tanks, boat frame was discovered to need a substantial rebuild, a project too large and time consuming for a Florida owner who desires to not skip a season in his later-boater years. "BEAUTY" (Google for more info) is out of the water at a premier San Francisco boatyard, awaiting action. There are other nearby boatyards also available for the work, perhaps at lower cost. Needs frame work, engines, tanks, topside paint, interior refit. Full canvas included. Truly a "BEAUTY." New passion urgently needed. View more details and photos on the Boats for Sale section of the *WoodenBoat* website. Contact: Sam Wilson, samuelhwilson@yahoo.com.

1884 RICE LAKE SAILING CANOE. This canoe that was made for my grandfather in 1884. Originally it was a Rice Lake Sailing Canoe. The bow had a hole for the mast and I assume there were out riggers. In the '50-'60s fiberglass was put on the outside. The inside is original. 16 ½ ft long, 33 inches wide, 115 lbs (approx). We cannot deliver it. Free to a "great" home. The canoe lives in Huntsville, Ontario, Canada. See photos on the online Free Boats ad: https://woodenboat.com/boats-for-sale/1884-rice-lake-sailing-canoe. Call 905–396–0339 or email medwards5@hotmail.com.

35′HERRESHOFF MEADOWLARK SHARPIE. 8′ beam. 2.5′ draft. Winterized engine. On dry land. Masts stored at same location. Mantaloking, NJ. E-mail: meadowlark895@gmail.com. Please request PDF of survey before asking specific questions.



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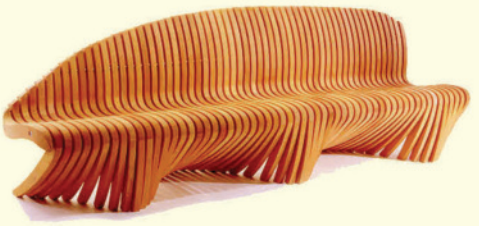
FINAL SHOT

ALISON LANGLEY

In mid-July 2024, *WoodenBoat* founder Jon Wilson joined us for an afternoon on the waterfront to discuss—and sail—WoodenBoat School's popular fleet of Haven 12½s and Herreshoff 12½s. (He's shown here sailing SEAL, one of the Herreshoffs.) As part of *WoodenBoat*'s celebration of its 50 years of publication, this encounter is recorded in our latest WoodenBoat Legends video, which you can view either by subscribing to our digital edition (details at www.woodenboat.com), or by joining our Mastering Skills membership site (skills.woodenboat.com).

"Save a Classic" will return to this space in WB No. 301.

Diamond Teak



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