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Getting Started in Boats: 12 Essential Yacht Designers, Part 1

Dan MacNaughton

Cover: In Gaspésie, Québec, Canada, Stephané Tremblay takes a break from work on his 26′ Paul Gartside–designed cutter, which he and his expectant wife are building for extended cruising. **See pages 5 and 26.**

Photograph by Catherine Gagné

WoodenBoat (ISSN 0095–067X) is published bimonthly in January, March, May, July, September, and November in Brooklin, Maine, by WoodenBoat Publications, Inc., Jonathan A. Wilson, Chairman. Subscription offices are at **P.O. Box 16958, North Hollywood, CA 91615–6958; 1–800–877–5284** for U.S. and Canada. Overseas: 1–818–487–2084.

Subscription rate is $32.00 for one year (6 issues) in the U.S. and its possessions. Canadian subscription rate is $37.00, U.S. funds. Surface rate overseas is $45.00, U.S. funds per year. Periodical postage paid at Brooklin, ME 04616 and additional mailing offices. In Canada, periodical postage paid at Toronto, Ontario (Canadian periodical Agreement No. 40612608, GST Registration No. R127081008).

U.S. Postmaster: Please send Change of Address (form 3579) to P.O. Box 16958, North Hollywood, CA 91615–6958
Canada Postmaster: Pitney Bowes, P.O. Box 25542, London, ON, N6C 6B2, Canada.

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To Build or to Buy?

A recent thread on *WoodenBoat*'s online Forum (visit www.woodenboat.com, and click "Forum") questions the practicality and financial wisdom of building one's own cruising boat. The thread's title is "Paying for the Pleasure of Building a Boat," and it generated considerable discussion. Californian Alan H., who initiated the conversation, opened with the premise that a 19′ plywood cruiser might cost a builder $20,000 and two years to build, while a nice Cal 20 could be had used for "about $1,000. Drop another $1,500–$2,000 into two new sails and a little stove and so on and so forth, and you're sailing in two months," argues Alan. "That's about a $17,000 price tag to pay for the pleasure of building your own boat." For bigger boats, he says, the numbers get really scary.

At last visit, 60 people had responded to that post, some defending the wisdom of building, despite its well-illustrated costs. "Robbie2" in New Zealand summed up that defense like this: "For me building a boat...is about much more than just wanting to own a boat."

This conversation was heating up at about the time we were editing Michael Higgins's article on how to manage the construction of a home-built cruising boat (page 26). In that article, Michael offers a frank discussion of the time (10 years) and money ($85,000) he spent building his Paul Gartside–designed 38-footer. It's a well-reasoned and concise guide to managing one's expectations, money, and time when building a boat. We were so taken with Michael's article that we wanted to make it this issue's cover story. But Michael had been so focused on construction and not photography that we were challenged to find an image that would work. So we called designer Gartside and asked if he could nominate any of his other customers to provide an image to represent this article. Michael suggested Catherine Gagné, whose photograph appears on this issue's cover.

Catherine's husband, Stephané Tremblay, is the man sitting next to the boat in frame. Stephané sent me a short account of the life that led up to that photo:

"We've been cruising on small boats with no engines for about 10 years. We were in Spain with our last boat, a Contessa 26, when my wife and I decided to have a kid—and so needed a bit bigger boat for an extra berth. We had an opportunity here in Québec to build, so we sailed against the prevailing winds of the north Atlantic for about two months. We arrived, stripped our boat of its gear to use it on the new one, and started the build. My wife is now pregnant, and we'll live in the loft of the shop until the boat is ready to cruise—probably next year. This boat will also have no engine. We plan to finish the hull, rig, and sample interior, then go cruising and complete it before heading east again, across the Atlantic."

To build or to buy? Is the question really a simple economic matter? Or is it better to ask if the time in the shop is a part of the journey, or a hurdle placed before it? It seems to me, from our brief correspondence, that Stephané and Catherine's adventures are continuing during their time ashore.

✦

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2012 Schedule at a Glance

*MAY	JUNE			JULY				
27 – 2	3 – 9	10 – 16	17 – 23	24 – 30	1 – 7	8 – 14	15 – 21	22 – 28
Fundamentals of Boatbuilding with Greg Rössel		Fundamentals of Boatbuilding with Wade Smith		Fundamentals of Boatbuilding with Greg Rössel		Fundamentals of Boatbuilding with Warren Barker		Introduction to Cold Molded Construction with Mike Moros
Making Friends with Your Marine Diesel Engine with Jon Bardo	Build Your Own Northeaster Dory with David Fawley	Building the Caledonia Yawl with Geoff Kerr		Build Your Own Greenland-Style Kayak with Mark Kaufman	Build Your Own Stand-Up Paddleboard with Geoff Kerr	Save A Classic with Eric Blake		Traditional Wood-and-Canvas Canoe Construction with Rollin Thurlow
Build Your Own Fox Canoe with Bill Thomas	Building the Asa Thomson Skiff with John Karbott	Introduction to Boatbuilding with Bill Thomas	Stitch-and-Glue Construction with Sam Devlin	Build Your Own Bronze Salute Cannon with Duke McGuiggan & Michael Caldwell	Build Your Own Plank Constructed Pond Yacht with Thom McLaughlin	Fine Strip-Planked Boat Construction with Nick Schade	Woodcarving with Reed Hayden	Boat Cabinetry with Dave Merrifield
*May 13-19 and May 20-26 Alumni Work Weeks	Inspecting Wooden Boats with David Wyman	Inspecting Fiberglass Boats with Sue Canfield	Lofting with Greg Rössel	Elements of Seamanship with Jane Ahlfeld & Annie Nixon	Elements of Seamanship with Annie Nixon & Steve Stone	Vintage Pond Yachts Part II with Thom McLaughlin	Marine Electrics with Patrick Dole	The Art of Scrimshaw with Ron Newton
			Coastwise Navigation with Jane Ahlfeld	WANDERBIRD with Rick & Karen Miles (June 23-July 2)	The Skills of Coastal Seamanship with Andy Oldman	Bronze Casting for Boatbuilders with Sam Johnson	Metal Working for the Boatbuilder & Woodworker with Erica Moody	Elements of Seamanship II with Martin Gardner & Robin Lincoln
			Elements of Coastal Kayaking with Bill Thomas			Elements of Seamanship with Martin Gardner & Sue LaVoie	Elements of Seamanship with Martin Gardner & Sue LaVoie	Craft of Sail on ABIGAIL with Hans Vierthaler
			Blacksmithing and Modern Welding with Doug Wilson & Will Dupuis			Island Exploration & Seamanship with Andy Oldman	Coastal Cruising Seamanship on ABIGAIL with Hans Veirthaler	Sailing Downeast with Andy Oldman
						Coastal Landscapes in Color with Susan Vanderlin		Elements of Coastal Kayaking (camping 2 nights) with Bill Thomas

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FAMILY WEEK	Building the Ben Garvey with Geoff Kerr		Wooden Boat Restoration Methods with Walt Ansel		Advanced Fundamentals of Boatbuilding with Greg Rössel		Fundamentals of Boatbuilding with Wade Smith	
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Build Your Own Chuckanut Kayak with David Gentry	The Essentials of Fine Woodworking with Janet Collins	Build Your Own Skipjack Sailing Model with Alan Suydam	Building the Somes Sound 12½ with John Brooks		Building the 12½' Semi-Dory Skiff with John Karbott	The Art of Woodcuts with Gene Shaw	Boatbuilder's Hand Tools with Harry Bryan	Building Half Models with Eric Dow
Build Your Own Pram with Bill Thomas	Rigging with Myles Thurlow	Elements of Boat Design with Graham Byrnes	Strip Composite Construction with Clint Chase	Traditional & Modern Oar Making with Clint Chase	Coastal Maine in Watercolor with Amy Hosa	Introduction to Sailmaking with Marti & Jed Siebert	Introduction to Canvas Work with Ann Brayton	Inspecting Fiberglass Boats with David Wyman
Learn to Sail with Jane Ahlfeld & Annie Nixon	Elements of Seamanship *(women only)* with Jane Ahlfeld & Gretchen Snyder	Elements of Seamanship with Martin Gardner & Dave Gentry	Sailmaking for Pond Yacht Owners with Alan Suydam	Lofting with Greg Rössel	Small Boat Voyaging with Jane Ahlfeld & Bill Thomas	Marine Photography with Jon Strout & Jane Peterson		
Craft of Sail on BELFORD GRAY with David Bill	Craft of Sail II with David Bill	Beach Cruising & Coastal Camping with Ross Beane & Bill Thomas	Sailing Traditional Daysailers & Beach Cruisers with Al Fletcher & Mike O'Brien	Craft of Sail on MISTY with Queene Foster	Elements of Coastal Kayaking (over 40) with Mike O'Brien	Sea Sense Under Sail with Havilah Hawkins		
	Coastal Cruising Seamanship on ABIGAIL with Hans Veirthaler	Seascape/Landscape in Watercolor with Phil Steel	Craft of Sail on MISTY *(women only)* with Queene Foster	Elements of Coastal Kayaking II with Stan Wass	Sea Sense Under Sail with Havilah Hawkins			
		Tallship Sailing and Seamanship with Capt. Barry King & Jane Ahlfeld	Cruising through the Watches on ABIGAIL with Hans Vierthaler		Windjamming on LEWIS R. FRENCH with Capt. Garth Wells			

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LETTERS

An American Redwing

Dear Mr. Murphy,
Compared to the O'Day Daysailer, Firefly, or International 14, the Redwing is a fairly small class focused mostly in western England. Uffa Fox designed the lapstrake 14-footer in 1937 for Wilfred Neale, then-commodore of the Looe Sailing Club, who commissioned the first six hulls to withstand the heavy seas off South Cornwall. The original design carried a 125-lb iron centerplate, a requirement revised in 1966 in favor of a wooden centerboard and later a trapeze (my EAGLE, built in 1991, is of the centerplate version). The first sailors of Redwings were surprised to learn that even given the weight, the boat planed offwind. Given the designer, should they have been surprised?

Today, Redwings are sailed primarily from two sailing clubs in the U.K.: Looe and Tenby in South Pembrokeshire. You can't miss the fleet with their bright-finished hulls and bright red sails. I have the proud distinction of owning—we believe—the only Redwing in the United States. The builder of EAGLE (ex-COMEDIENNE) applied for 10 hull numbers from the National Redwing Dinghy Association (NRDA) and only reported the completion of one: No. 230, my hull.

Joe Bondi
Alexandria, Virginia

More Fox Details

Dear Matt Murphy,
I've enjoyed Nic Compton's series on Uffa Fox. I assume that by this time 457 different emails have told you that Prince Philip's Dragon is called BLUE BOTTLE, not BLUEBELLE as in the article. But that's a mistake that can happen to anyone. I also want to point out that the young, unidentified naval officer standing with Uffa and his new bride in a photo in the third part of the series, is Peter Scott. Scott was, in the cosmic scheme of things, rather more important than Fox. He won the Prince of Wales Cup at least three times in Fox International 14 dinghies. He also was the helmsman of the 1964 British AMERICA's Cup challenge in SOVEREIGN, and president of the International Sailing Federation for some years. But, more important, he was an internationally noted wildlife artist and a founder of the World Wildlife fund. His successes as a sailplane pilot aside, he ended up as Sir Peter Markham Scott, CE, CBE, DCS and Bar, FRS, FZS.... A very important fellow who may have warranted at least an identification in the photo.

John Pazereskis, PhD
via e-mail

Seacocks

Dear Steve D'Antonio:
Your well-written and clearly illustrated article in the January/February 2012 issue of *WoodenBoat* prompted these thoughts. Many modern production boatbuilders do not install traditional seacocks but instead attach a ball valve directly to the through-hull. The dangers of this are adequately described in your article, but you fail to mention a product from Groco, the IBVF series of flanged adapters. These screw onto the existing through-hull and provide a stable base for attachment of the valve or pipe fittings. We have used them on a number of boats, and they save considerable time and

money. Second, although you warn of the dangers of using stainless-steel fittings, you do not mention that stainless fastenings should not be used to hold the seacock in place. We have seen profound corrosion created by mixing these dissimilar metals. Finally, you mention the importance of using marine bronze and not brass pipe fittings, and we agree, but have had considerable difficulties with imported "bronze" fittings made with inferior alloys. Many of the available components are made in China, and we do not have confidence in their composition.

Ken Spring
Manager, Small Open Boats
Port Republic, Maryland

Steve D'Antonio replies:

As much as I'm a fan of Groco products, I can't say the same about their IBVF product. It adds an unnecessary threaded joint to the equation, and I can therefore see no advantage to their use and I fail to see the savings they afford. You are right to point out the dangers of using stainless-steel fastenings. The corrosion they suffer, however, especially when used with wood, is that of the "crevice" rather than dissimilar-metal variety. Finally, I share your concern regarding poor-quality "bronze" components, many of which are made in Asia.

My Lunch with Stobart

Dear Sirs,
I am retired and enjoy reading your magazine while eating lunch at the local supermarket deli. In doing so, I had to buy WB No. 223. The feature on John Stobart was amazing, and I had to own the copy. I subsequently bought one of his books and today will order his DVDs. Thanks so much for bringing us a real Artist at last.

James Parsons
Portland, Oregon

The Price of a Shantyboat?

Dear Editors,
I really enjoyed Harry Bryan's article on "shantyboats" until the last sentence. $75,000! Shantyboats do not cost $75,000.

Joe Pouliot
Burnsville, Minnesota

Harry Bryan replies:

There seems to be some distress over the price of our Shantyboat. Here are some figures and thoughts to explain that total: Bryan Boatbuilding charges $25/hour for labor. There are just under 2,000 hours of work, including design time, in the boat. Materials cost is $15,000; overhead charges are $9,000; and a wheelbarrow boat, complete with leathered oars, cost $2,600. The boat could have been built for somewhat less money by using plywood construction, and by removing the subtle curves in the sheer, spiled clapboards, and roofline; but it would not, for me, be the same boat. It can be built for a great deal less by eliminating the labor cost, and we sell plans for that option.

Creative, custom work always costs more than mass-production. I am thankful that there are customers who know the value of supporting craftspeople. They help keep alive skills passed down through hundreds of years and promote an economy less dependent on subsidized energy and third-world labor.

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The photo of Ernest Hemingway at the helm of PILAR is courtesy of the John F. Kennedy Presidential Library and Museum.

Pratiquely Speaking

by David Kasanof

Nautical language may seem strange to the non-sailor, but so does medical and legal language seem to the rest of us. What is especially puzzling about boat language is that it is sometimes extremely reserved, even courtly, when boats are talking to each other. At those times, if one consults the "book" on the verbal equivalents of various signal flags, sailors suddenly start talking like English country gentlemen.

For instance, if you ever enter a foreign port you're supposed to fly a yellow flag, which stands for "I request pratique." It is also supposed to imply that there is no plague aboard. But "pratique," for God's sake! Who talks like that? The word sounds suspiciously like French to me. Anyway, what one really wants is a cold beer and hot shower. Let them keep their pratique.

For my money, the epitome of the courtly sound of flag talk is the L-Lima flag. It means, "Stop your vessel instantly." I love that one. The last time I was able to stop my vessel instantly, I had run aground on a chunk of Long Island that was in the wrong place. I'm especially fond of the imperious tone of the command, because it orders one to do the impossible. The master–servant relationship implied by this flag is heightened by the very next in the alphabetical sequence, M-Mike. Its meaning is "I am stopped." It could be a serf replying to his aristocratic master. I think it's entirely possible that the sentence once ended with "Your excellency." The title may have been dropped in accordance with the modern spirit of democracy. If so, the omission seems a bit drastic. Maybe we could have retained a term of respect but without the implication of subservience. For example, "I am stopped, Dude." Has a chummy American ring to it.

The prize for retention of archaic salty language goes to U-Uniform. It means, "You are standing into danger." How very salty. The last time I saw the word "standing" used that way was in a fo'c's'le chantey where someone encounters pirates while "standing off the coast of High Barbary," wherever that was, or is. What a great song, full of stuff like "brail up your mizzen" and "strike your royals!" In the end the good guys win and the bad guys "cry quarter." That's what "standing to" calls to my mind. Maybe I'm over-reacting.

The weirdest flag is X-Xray. It calls for one to "Stop your intention." My fellow citizens, are we not entitled to the privacy of our own thoughts, our intentions, if you please? I may intend whatever I please, thank you. Furthermore, how does anyone know what my intentions are and whether or not I have stopped them? I sense something truly sinister behind the meaning of this flag.

On a happier note, consider the combination signal FA, meaning, "Will you give me my position?" What admirable self-restraint. Think how humiliating it must be to fly two flags that tell everyone who can read their meaning that you are lost. What the sender really wants to say is, "Help, I'm lost! Where the hell am I?"

Signal flags are not the only repositories of peculiar language. Some stilted talk is still found in language explaining the so-called "Rules of the Road." I'm old enough to remember when the boat with the right-of-way was called "privileged" and the other called "burdened." Now I learn, to my dismay, that these are now called "stand on" and "give way" boats. Now, what were broke that needed fixin'? The new terms are not even grammatical. They are commands, when they should be adjectives. When a soldier enters his commanding officer's quarters, he is not the "take off his hat" soldier; when he leaves, he is not the "put his hat back on" soldier.

Finally, why do we need two phrases to define the boat with the right-of-way? Isn't it safe to assume that if one boat has the right-of-way other boat does not? And why not simply define the boat with the right-of-way as "The Boat with the Right-of-Way"?

Maybe we should toss out the legalistic nit-picking and follow the example cited by a Bahamian fisherman who, when I asked about the Rules of the Road, said, "Biggest boat got de right of way, mon."

TOM JACKSON (BOTH)

In a seven-year project, Tom Borges built a lovingly detailed—and completely functional—one-third-scale Concordia yawl, now on exhibit at the New Bedford Whaling Museum. Borges has a studio in town.

Much more than perfection

by Tom Jackson

Of all small things that captivate people, boat and ship models rank among the highest. An overall impression may first catch the eye, but intricacy and detail keep holding it.

One intriguing model I've heard about is a finely crafted one-third scale model of a Concordia yawl, 15′2″ long, photos of which made the rounds on the Web for quite a while. I was pleasantly surprised, however, to see it in person at the New Bedford Whaling Museum in Massachusetts. It is on loan there, in the neighborhood of the Concordia Company, joining another notable large model: the one-half-size LAGODA, a whaleship built and outfitted in 1916 by veteran New Bedford shipwrights and whalers and big enough to fill a room nearly the size of a gymnasium.

The Concordia yawl's builder is Tom Borges, a sculptor. He studied at the University of Massachusetts, Dartmouth, and has a studio in New Bedford. He also works seasonally in Burr Brothers Boatyard in neighboring Marion. The model—in short—is perfection. To the last of Concordia's much-admired details, it is a work of art. Except for one thing: it is also entirely functional, down to the winches. A section of the trunk cabin, cleverly disguised, lifts off to allow a helmsman to sit below, although to this day Borges hasn't brought himself to get her wet.

Borges measured everything carefully, but often it is startling to find how fine a model can be made on little information, with no compulsive devotion to accuracy, yet still convey the "feel" of a boat. Pond yachts fall into this category, since by dint of scale and rig complexities, they often can't be perfect representations but sail or motor wonderfully. But even for display, a model can capture a boat's character without perfectly measured details. One such model came our way from Ed Gardner of North Weymouth, Massachusetts. The boat is VETERAN, the Puget Sound purse seiner I wrote about in WB No. 204. Not long after that article appeared, a few photographs of the model showed up in the mail. "I've been involved in boats since I was a little child," Gardner told me. "I had a bunch of my own. I do this to keep an old man's hands from seizing up." A retired long-haul trucker, he still "makes a nuisance" of himself at the South Shore Yacht Club, a stone's throw from his home. Modelmaking keeps him in touch with the powerboating he loved when he was younger. He built VETERAN from plans published with the article, starting with a 32″ LOA tugboat kit from The WoodenBoat Store, which he reconfigured to represent VETERAN. Why this boat? "It's gorgeous," he said. And he didn't stop there: He did the same thing with the Eastern-rigged dragger ROANN, which Walter Ansel wrote about in that same issue of *WoodenBoat*. The man has a good eye for a boat.

Models—especially of ships—have been traditionally not only decorative but also important technical references.

ED GARDNER

Ed Gardner liked the looks of the purse seiner VETERAN he saw written up in *WoodenBoat*, so he built a 32″ LOA version by adapting a kit.

In the European naval tradition, models were built alongside full-size ships to head off construction problems. For the French frigate replica HERMIONE (see www.hermione.com), which will launch this July in Rochefort, France, a large "dockyard" model was built by Jean Thomas six months ahead of the real ship's construction, just as in the shipyard of old. And in modern times, archaeologists use models to reconstruct shipwrecked hulls, not only to visualize them but to understand them. The Institute of Nautical Archaeology's program at Texas A&M University has a lab devoted specifically to that work. Now, there's a job description!

Models are still common in modern boatyards, not for technical reasons but to entice a client to fall in love with a design or as a celebration of a launching. But for amateurs—and a few old-school veterans—models still inform design and construction every bit as much as the half models, preserved at the Herreshoff Marine Museum in Bristol, Rhode Island, that Nathanael Greene Herreshoff built in designing his yachts. Willits Ansel (see WB No. 171) has builder's half models littering his place in Georgetown, Maine. Most recently, I heard from Andrew Kitchen in Rochester, New York, about a lovely model he has built to work out construction and rig details for a Yorkshire coble, a type common in his native England. "I drew the lines for the boat from a small diagram in The Chatham Directory of Inshore Craft," he writes, "so, I wanted to make sure that they would produce the craft I envisioned. A scale model seemed the least expensive way to go." The model helped determine his construction sequence and rig details and convinced him to peak up his dipping-lug spar a bit more. "At least I've learned what I must do for the real one," a 19-footer that he already has started building.

ANDREW KITCHEN

To work out details of a Yorkshire coble he is building full-size, Andrew Kitchen first built a model. Starting with a drawing of a 24′ historic boat, he downsized it to 19′ in scale and added 10 percent to the beam. As a youth, he vacationed in Filey, England, where in this type of boat "the fishermen used to take vacationers out to make a little extra cash."

A piece of sculpture might go for a sail. Something built to pass the time can become timeless. A shipwright or

archaeologist's reconstruction can be treasured as fine art. A builder who has completed a model to prepare for full-sized construction ends up with a boat to use and something wonderful to display. A model built for a specific reason often transcends its own purpose, and for all of them the capability to fascinate is infinite.

Tom Jackson is WoodenBoat*'s senior editor.*

Around the yards

■ "During a trip to Japan to visit my friend Takeshi Tanaka," Perry Munson writes from Gross Pointe, Michigan, "we found our way to a remote **Tokyo Bay waterfront**, where among 10-story warehouses and factories we found **Sano Shipbuilders** (see WB No. 80) tucked in under a railroad bridge. Takeshi called on his cell phone, and out strode Minoru Sano, who runs the yard with his brother, Ryutaro. For the next two hours, we were given a tour of the facility and boats, heard their stories, and saw their work.

"They were shaping parts for a traditional, narrow-beam fishing boat they had lofted on the shop floor. Ichiro Sano, the brothers' father, now 92 and retired, had built one like it 16 years earlier for the city of Koutou, which now wanted another. [Their brother, Sueshiro, went to Holland to work in yacht interiors, then returned to Japan to build boats, and, lately, handmade wooden bicycles.] Meanwhile, Minoru is building a cruising powerboat for his own retirement, hoping to make room for his son, Tatsuya, to start new constructions. The family schooner, SUCCESSOR, now 27 years old, was moored next to the wharf. Tatsuya later told me that the shop had been in its current location for 20 years and had been in a previous location for 147 years; the family business was founded about 1776.

"After the family listened with great

PERRY MUNSON

Tatsuya Sano, 25, is of the latest generation to build boats at a Tokyo boatyard that dates back to the late 1700s. This boat is a 20′ teak-planked runabout built at the yard.

interest to the tale of six years rebuilding a Chris-Craft, Tatsuya said he had one more boat for us to see. He led us to a runabout and pulled the cover off. It was massively built, about 20′ long, with teak planking below the waterline and acres of rich, red mahogany above. All the deck seams were stunning white. It had snow-white leather seats and a huge, white, outboard motor built into a curved motorwell that brought it sufficiently inboard. The spray rails on the back third of the hull continued around the transom, where they gracefully and effortlessly turned into a swim platform. I knew the Sanos were good, but this boat left me a bit weak in the knees.

"At 25, Tatsuya, who learned his English in Canada, said he loved what he was doing. He has the energy and grace of a young Olympian. He is the only one of his generation interested in carrying on the yard's work. And young Japanese are getting far too removed from hands-on crafts, he said. In any case, a nine-generation boatyard well over 200 years old is already shifting its weight onto one strong, young man."

COURTESY KOEHLER KRAFT

Koehler Kraft in San Diego, California, is building hull No. 2 of a 28′6″ cold-molded express cruiser (above) designed by C.F. Koehler. In addition, the 10-Meter SALLY, a 1928 composite yacht designed by W. Starling Burgess, is undergoing a thorough restoration. Both boats will launch this spring.

■ **Koehler Kraft Company** in **San Diego, California**, is currently nearing completion of the second power cruiser built to a design by proprietor C.F. Koehler. The boat is a **cold-molded 28′6″ express cruiser**, the first of which was launched in 2005 as a prototype. It has a beam of 11′6″, a draft of 2′5″, and weighs 7,500 lbs. The custom accommodations include a head, galley, and double berth. With a Volvo Penta D-6 370, it can reach 36 knots and attains 3 mpg at 25 knots.

With its varnished transom and cabin sides, the boat is reminiscent of the post–World War II days when Koehler Craft, founded by C.F.'s father in 1938, specialized in custom mahogany barrelback runabouts, sportfishing boats, and cruisers. "In the early 1960s, Koehler Kraft was not inclined to go into fiberglass production boatbuilding, but rather focused and specialized in high-end maintenance and modifications," Koehler writes. Beginning in the 1980s, the yard reintroduced new construction, specializing in wood-epoxy techniques. A spring launching is planned for the KK28.

The yard is **restoring** the sailing yacht **SALLY**, a **1926 10-Meter** designed by W. Starling Burgess and built by Abeking & Rasmussen in Germany. The hull was originally built in the composite style of the day, using wooden carvel planking over a combination of steam-bent wood and shaped steel frames. In the reconstruction, original scantlings are respected but the steel frames and floors are welded and galvanized instead of riveted, and the wooden frames are laminated instead of steam-bent. The planking is edge-glued with epoxy and also encapsulated in epoxy. SALLY is 59′ LOA, with a beam of 10′6″, draft of 8′6″, displacement of 46,000 lbs, and sail area of 1,600 sq ft. A spring 2012 launching is expected. *Koehler Kraft Company, 2302 Shelter Island Dr., San Diego, CA 92106; 619–222–9051; www.koehlerkraft.com.*

■ "On November 15, 2011, after 25 years of providing hands-on educational shipboard programming to over 125,000 students of all ages, backgrounds, and abilities, **LADY MARYLAND** was dry-docked for her **most significant refit** since being launched," the ship's **captain, Peter Bolster**, writes from Baltimore. "She will see her stem and knightheads replaced and she will be completely refastened. Additionally, she will be thoroughly recaulked below the waterline. The project is slated to cost about $180,000." LADY MARYLAND was launched by Living Classrooms Foundation in 1986 to bring hands-on education to students and connect inner-city youths to the history and natural resources of Chesapeake Bay. She is a replica of a 19th-century pungy schooner, a fast type that carried perishables such as oysters, watermelons, tomatoes, fish, peaches, and grain on the Bay. For the refit, she is currently hauled out in public view at the Frederick Douglass–Isaac Myers Maritime Park in the Fells Point neighborhood of Baltimore. The nonprofit organization is seeking in-kind and funding donations to offset the costs of the project. *Living Classrooms Foundation, 802 S. Caroline St., Baltimore, MD 21231; 410–685–0295; www.livingclassrooms.org.*

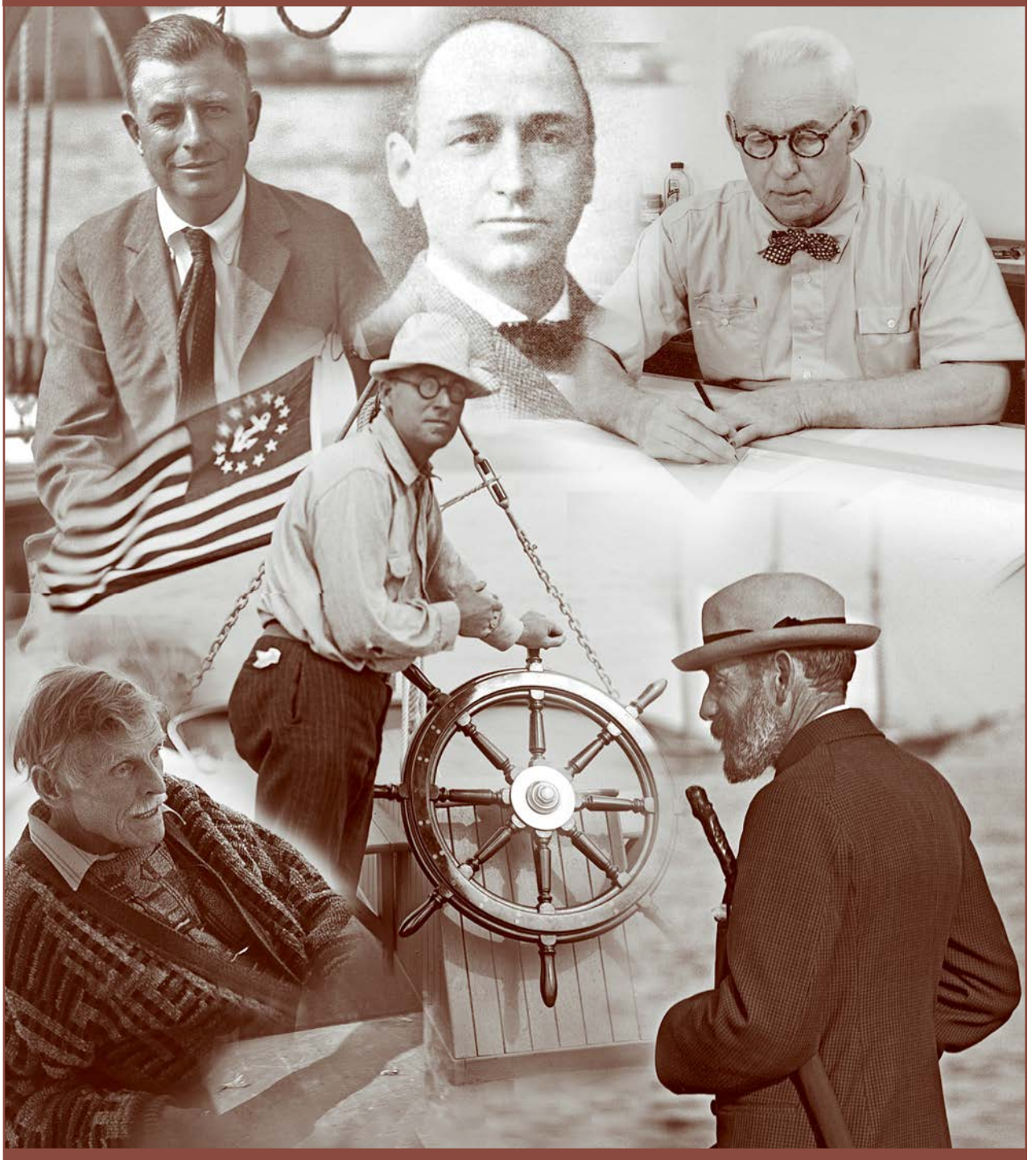
PETER BOLSTER

LADY MARYLAND, a pungy schooner built for educational programs, is having an extensive refit in Baltimore this winter.

■ **Redds Pond Boatworks** in **Marblehead, Massachusetts**, has changed hands. "I have moved to Cummington," in the far western part of the state, former proprietor **Thad Danielson** writes. He is "semiretiring, with plans to sail, read, and build 25′ gaff-rigged cruising boats based on designs of Albert Strange and Ralph Middleton Munroe." His own Strange-designed yawl SEA HARMONY has been a regular at the annual WoodenBoat Show, and he has written about her voyages in the Albert Strange Association's journal (see www.albertstrange.org). **Redds Pond Boatworks** is now in the hands of **David Redero** and **Doug Park**, both **graduates of the International Yacht Restoration School** in Newport, Rhode Island. Both are working to reorganize the boatyard on weekends while finishing out other commitments. Park, a native of Marblehead

Getting Started in Boats

from the Editors of WoodenBoat *Magazine*



Volume 33

12 Essential Yacht Designers, PART 1

— 12 Essential Yacht Designers, part 1 —

ALDEN • ATKIN • CROWNINSHIELD • GARDEN • HAND • HERRESHOFF

by Dan MacNaughton

As one develops an appreciation of yacht design, one runs into certain designers' names again and again. The purpose of this article is to introduce 12 important 20th-century designers and to tell just enough about each one to describe the overall arc of his career. The editors picked a dozen as the number, and we agreed on what we think is a well-rounded group of often-heard names that we hope will benefit the reader who is just starting to appreciate the art and science of yacht design. Six of these designers are portrayed in this issue of *Getting Started in Boats*, and six more will be presented in the next issue. We don't mean to say these 12 are "the best of all" designers, although they are certainly among the best of all time, nor is this presentation considered a ranking.

In this issue, our subjects are John G. Alden, William Atkin, Bowdoin Bradlee Crowninshield, William Garden, William Hand, and Nathanael Greene Herreshoff. In Part 2, to appear in *WoodenBoat* No. 226, the subjects will be Olin Stephens, Philip Leonard Rhodes, Charles Raymond Hunt, W. Starling Burgess, William Fife III, and Leslie Edward "Ted" Geary.

It is the designer's job to create a boat for a particular individual, pattern of use, or locality. Few objects are created through such a dynamic interplay of science, natural evolution, tradition, and art. One yacht may be judged against another in any of a number of ways depending on the observer's priorities, such as beauty, construction technology, comfort, or speed, but every yacht must function in harmony with the eternal natural forces of wind and waves in her given locality or across the oceans of the world. There is no escaping the connection between boats and nature, and that may be part of the reason why they seem to affect us on a deeper level than most of the other objects in our lives.

Those who wish to seek a deeper understanding of these yacht designers and yacht design in general will find a solid technical and historical foundation in these books: *Skene's Elements of Yacht Design* by Francis Kinney; *The Encyclopedia of Yacht Designers,* which I edited with Lucia Del Sol Knight; *Understanding Boat Design* by Edward S. Brewer; and *Yacht Designing and Planning* by Howard I. Chapelle. Further reading about these designers and their work can be found in numerous *WoodenBoat* magazine articles (see the online index at the "Research" tab at www.woodenboat.com) or in biographies written about the designers, or in many cases in books written by the designers themselves. The books listed above and those listed at the end of each segment in Parts 1 and 2 are available through The WoodenBoat Store.

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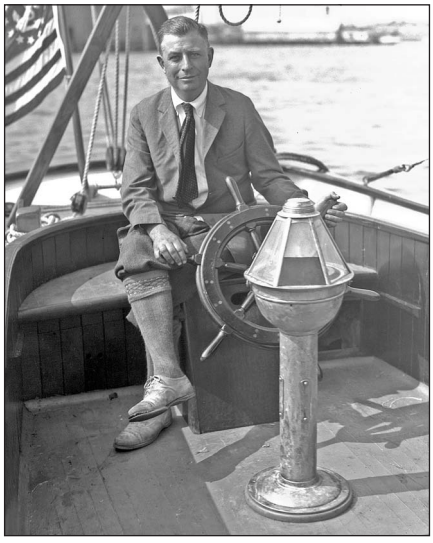
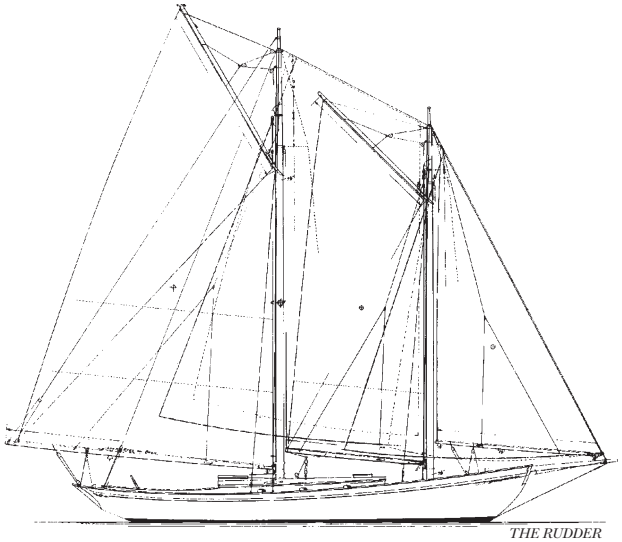
— John G. Alden —

1884–1962, Boston, Massachusetts



MYSTIC SEAPORT, ROSENFELD COLLECTION



THE RUDDER

John G. Alden, shown above during the 1925 Bermuda Race, designed thirteen yachts named MALABAR—ten of them schooners—for his personal use. At right is MALABAR II of 1922. One of Alden's most admired designs, she is still sailing today, and her plans are available from the WoodenBoat store.

John Alden began his independent career in 1909 after apprenticing with W. Starling Burgess and B.B. Crowninshield. Early on, he gained a widespread reputation for small schooners that he had based on fishing boats operating out of Gloucester, which were well suited for the then-new sport of ocean racing. It was one of the few times in history when successful racing yachts were also superb cruising yachts, and because of this versatility many Alden schooners have been preserved. Alden himself raced ten schooners named MALABAR that he had designed and had built for himself to test hulls, rigs, details, and aesthetics. His MALABARs won the Bermuda Races of 1923 and 1926, and in 1932 the first four places were taken by Alden schooners. (Three of Alden's personal MALABARs after MALABAR X were not schooners; one was a yawl and two were ketches.) Alden's office produced about 150 schooner designs in all, and a series of 43-footers are considered among the most beautiful and seamanlike cruising boats ever drawn.

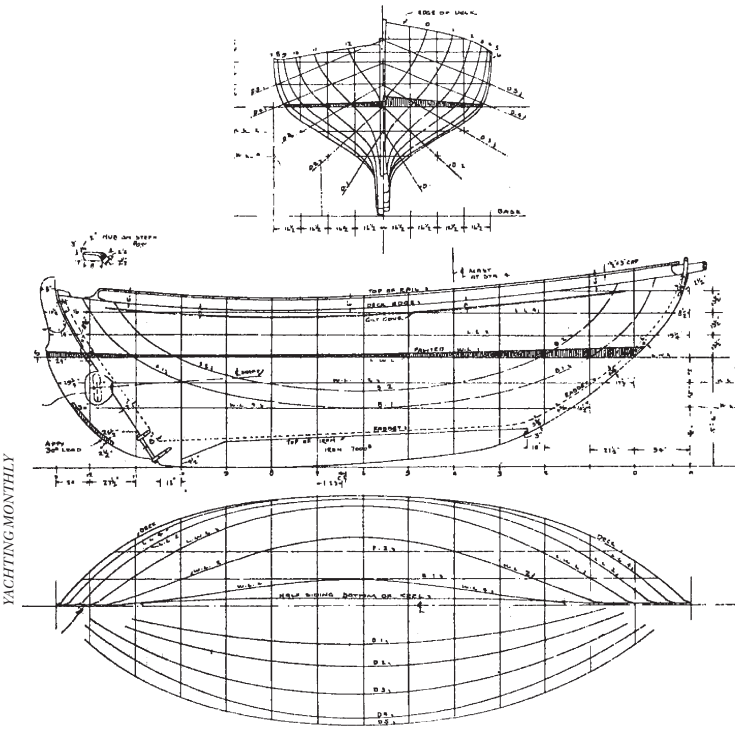
Racing rules—complex formulas that involve a complicated set of measurements—have often influenced yacht designs. A racing rule developed by the Cruising Club of America (CCA) in the 1930s encouraged yawls and sloops of more modern hull form and using marconi rigs—so called because the triangular sails were set on masts tall enough to remind people of inventor Guglielmo Marconi's radio transmission towers. Alden designed some of the finest examples of the new type as well. These, too, combined capabilities for both racing and cruising, establishing harmonious aesthetics that became more or less permanent standards.

Besides schooners and ocean racers, 44 motorsailers, and 88 power yachts, the Alden office produced many racing sloops, cruising sloops, yawls, and ketches, including such semi-production family cruising-boat designs as the Coastwise Cruiser, Barnacle, Malabar Senior, and several variations of the Malabar Junior design. In all, 106 "one-designs," or boats built identically for racing against each other, were produced, including the Biddeford Pool One-Design, the Alden O-boat, the Alden Triangle, the Indian class, Sakonnet, and U.S. One-Design.

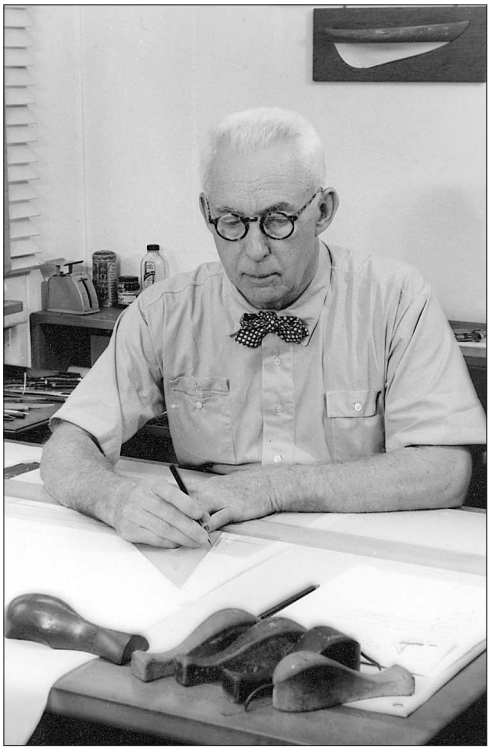
(A profile of Alden appeared in WB No. 32; see also John G. Alden and His Yacht Designs, *by Robert W. Carrick and Richard Henderson. Alden's plans reside with Niels Helleberg Yacht Design, the successor to Alden's company; see www.aldendesigns.com.*

— William Atkin —

1882–1962, New York and Connecticut



YACHTING MONTHLY



COURTESY PAT ATKIN

William Atkin designed a wide variety of boats, among them Scandinavian-inspired double-enders like the 32′ cutter DRAGON shown above. Atkin had a prolific career as a designer and yachting writer, first on his own and later with his son, John.

Some designers achieve fame on the race course or with technological innovation, but others are appreciated because their work finds an emotional connection with everyday people, generation after generation. William Atkin seldom designed racing boats but drew boats for about every other conceivable purpose. He was as good a writer as he was a designer. In addition to three books, he is known for the designs he published in the *MotorBoating* "Ideal" series. He was the editor of *Yachting* during World War I, technical editor of *Motor Boat* after that, and edited his own magazine, *Fore An' Aft*, from 1926 to 1929. Beyond the usual technical information, much of his writing served to point out what was enjoyable about each design and what type of person would get the most out of it.

Atkin was one of the first designers to introduce American yachtsmen to heavy-displacement, double-ended offshore cruising yachts based on Scandinavian antecedents. Such boats, some later built in fiberglass, helped popularize offshore sailing after World War II. Beyond this, however, his work includes a wide variety of large and small sailboats, a large number of powerboats, many small craft for a wide range of purposes, and a number of much-beloved houseboats and shanty boats. The fundamental excellence of his small boats is once more being discovered and appreciated today.

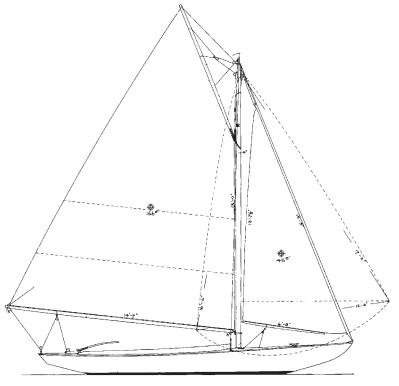
Atkin's career eventually merged with that of his son, John, who continued and greatly expanded upon the traditions his father established.

(A profile of the Atkins appeared in WB No. 168–169; see also The Book of Boats Volumes I and II, Three Little Cruising Yachts, Motor Boats, *and* Of Yachts and Men. *Atkin's plans reside with Pat Atkins; see www.atkinboatplans.com.)*

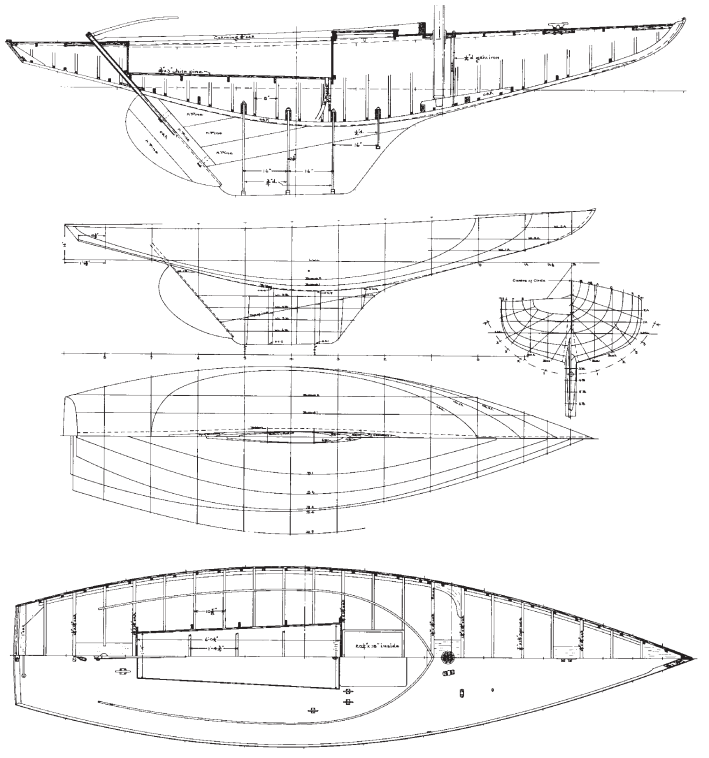
— Bowdoin Bradlee Crowninshield —

1867–1948, Boston, Massachusetts

TRADITIONS & MEMORIES OF AMERICAN YACHTING



WOODENBOAT/PEABODY ESSEX MUSEUM



At a time when many designers were taking inspiration from successful workboats, B.B. Crowninshield introduced ideas specific to yachts. His Dark Harbor 12½, shown here (and available from the WoodenBoat Store) is one of his classic small daysailers.

A major figure in racing yacht design in the early 20th century, B.B. Crowninshield was among the first to move firmly toward a pure "yacht" style of hull that bore little resemblance to earlier commercial types. A typical Crowninshield yacht is long-ended, narrow, and deep, with entirely outside ballast on a very abbreviated, fin-like keel; U-shaped 'midship sections; and a large rig. They ranged in size from the Dark Harbor 12½ (12′6″ on the waterline) to the 90′ extreme AMERICA's Cup defense candidate INDEPENDENCE. Yachts of this form were optimized for smooth water and the relatively light airs of summertime, and they were created before ocean racing and voyaging, family cruising, and living aboard came to require entirely different hull shapes. Crowninshield's cruising yachts tended toward the same general proportions as his racers. In his time auxiliary engines were uncommon, so sailing performance in a wide range of conditions, including light wind, was important in a way it is not for most yachtsmen today.

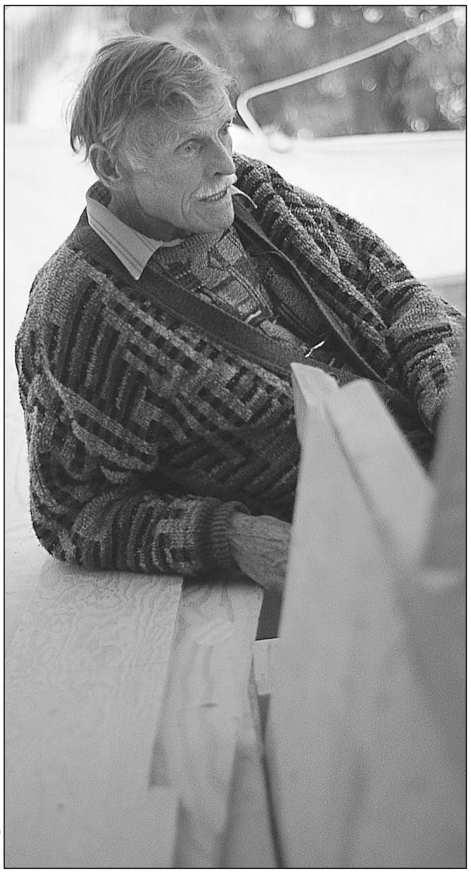
One of Crowninshield's major contributions was in refining Gloucester fishing schooners to be safer and faster, adapting yacht-like characteristics (especially deep draft and more V-shaped sections) to offshore commercial use. In an interesting twist, Crowninshield's apprentice John Alden was later instrumental in adapting the Gloucester schooner type for yachting.

Few Crowninshield yachts survive today because of their extreme forms. They were too flexible to last very long without strengthening, and in general the type of hull went out of style. Nevertheless, Crowninshield designs are some of the most beautiful examples of the type, and the few boats built from them that do survive are much valued in classic yachting circles.

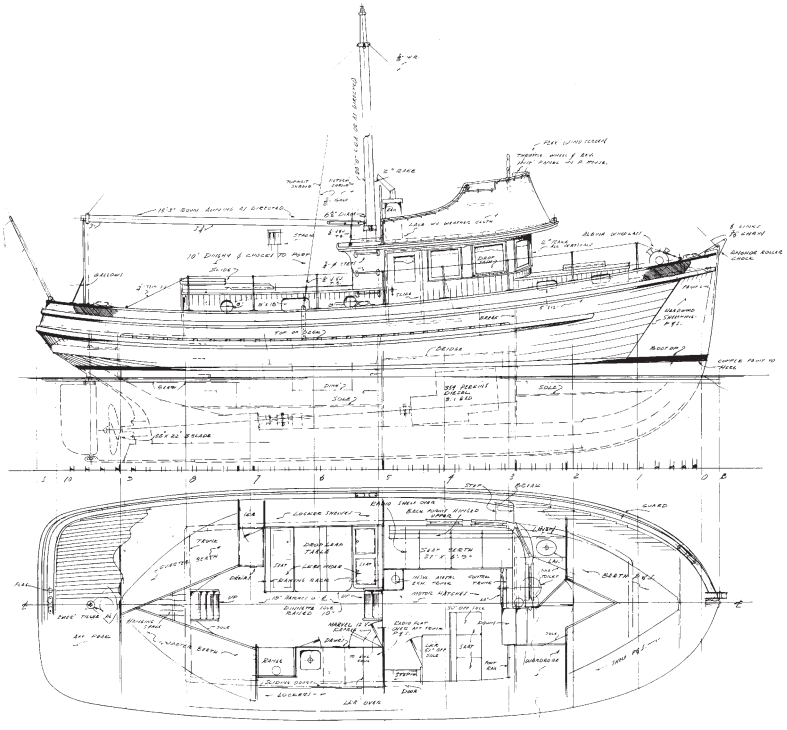
(Crowninshield's plans reside at The Peabody Essex Museum in Salem, Massachusetts; see www.pem.org.)

— William Garden —

1918–2011, Seattle, Washington and Sidney, British Columbia



TOM JACKSON



MYSTIC SEAPORT, SHIPS PLANS COLLECTION

William Garden designed workboats and pleasure boats of all kinds. The powerboat shown here is a 37′ LOA troller yacht distinctly showing her commercial fishing boat heritage.

Remarkably versatile, William Garden produced sailing yachts, power yachts, military craft, towing boats, cargo carriers, small craft, fishing boats—over 1,000 designs—in what may have been the longest career of any designer. He could produce a design that was strictly traditional, and he had direct, detailed knowledge of such types. He also designed many boats that were purely futuristic, boldly advancing into new territory. Most often his designs were best described as "timeless," being contemporary in most respects but showing a sweetness of line that nonetheless connected them to traditional aesthetics. Fishing boats for the Pacific Northwest and motoryachts that resembled them were a big part of Garden's output, and he clearly enjoyed yachts with a rugged, no-nonsense workboat sensibility.

Coming as he did from a temperate coast with a lot of rain, Garden often worked pilothouses into his sailboat designs, making them ideal for year-round use. He also designed sailing craft for commercial fishing and cargo-carrying.

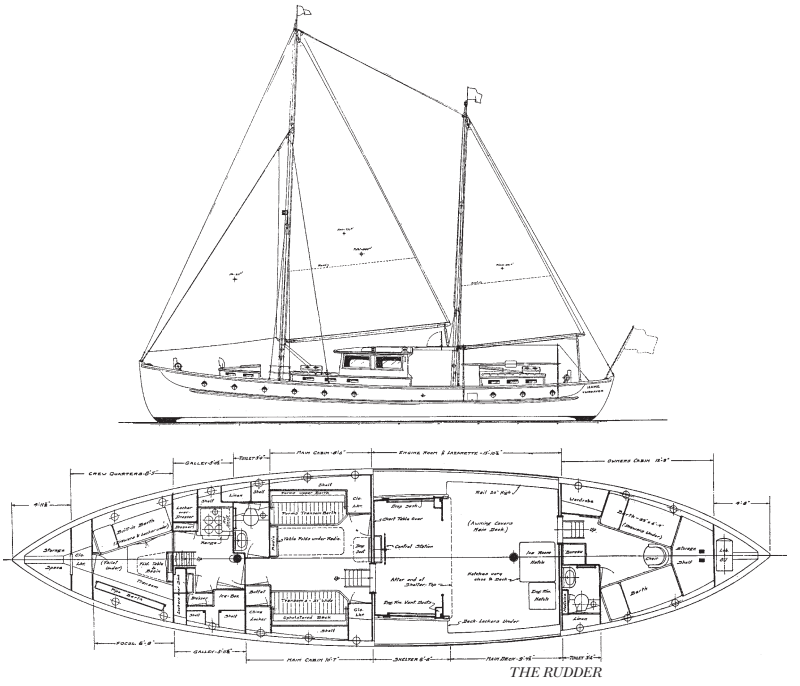
While many of Garden's power cruisers were of the heavy-displacement, low-speed fishing-boat-inspired type he helped to popularize, he also drew a considerable number of larger, luxurious motoryachts with modernistic lines but having seamanlike features. He created a large number of charming cruising yachts, some of them very small. Remarkably, considering his penchant for heavy displacement, he occasionally drew excellent light-displacement cruising sailboats that show the potential of the type when it is uninfluenced by racing handicap rules.

(Garden wrote Yacht Designs, Volumes I and II*;* The Making of Tom Cat*; and numerous articles in* WoodenBoat. *A boat built to one of his designs appears on page 64 of the current issue. His plans reside at Mystic Seaport; see www.mysticseaport.org.)*

— William Hand —

1875–1946, New Bedford, Massachusetts

MYSTIC SEAPORT, ROSENFELD COLLECTION



THE RUDDER

William Hand, shown above in 1923, made the design of cruising motorsailers a specialty. The 63′ double-ender shown here came off his design board in 1933, and one of the two sisters built that year was for Hand's personal use.

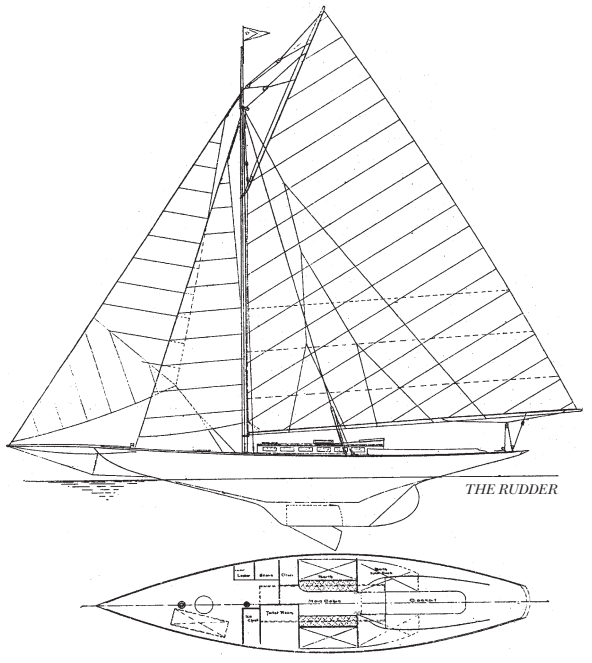
Another very versatile designer, William Hand is primarily known today for his motorsailers, which are regarded as some of the best of that genre. A motorsailer is primarily a motorboat but has a sailing rig capable of being the yacht's sole propulsion in winds over about 18 knots, and serving to reduce motion, ease steering, and increase fuel economy whenever desired. Large tankage provided good range under power, with 1,500 miles being typical. While most of Hand's motorsailers were built to high yacht finish, they retain a seriousness of appearance derived from their commercial ancestors, most notably the Maine sardine carrier (see this issue of *WoodenBoat*, page 56). Hand's superstructures always included a pilothouse, but in size they fall about midway between those typical of a sailboat and those commonly seen on powerboats, contributing to an interesting and refined appearance. Some of his motorsailers, including those he had built for himself, were used for swordfishing, with the addition of the necessary bowsprit platform for the harpooner.

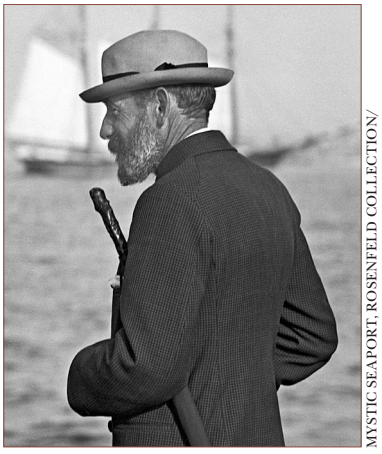
Schooners were another of Hand's important contributions, and while they were often successful on the race course they were somewhat more rugged, dramatic, and workboat-like in appearance than their contemporaries. Hand's best-known schooner is the 88′ BOWDOIN, drawn in 1921, which made many voyages of exploration to the Arctic and continues to do so today under the ownership of the Maine Maritime Academy.

Hand was among the first to adapt the Chesapeake deadrise-type workboat form to produce fast, handsome V-bottomed motorboats, including some early speed-record holders.

(A profile of Hand appeared in WB Nos. 28–29; see also Designs of William Hand, Jr., *compiled by the WoodenBoat Research Library. Hand's surviving plans reside at The Hart Nautical Collections, Massachusetts Institute of Technology, Cambridge; see web.mit.edu/museum/collections/nautical.html.)*

— Nathanael Greene Herreshoff —
1848–1938, Bristol, Rhode Island





MYSTIC SEAPORT, ROSENFELD COLLECTION/ JAMES BURTON PHOTOGRAPHER

Fourteen Buzzards Bay 30s, 30′ on the waterline and 46′6″ overall, were built for the 1902 racing season at the Beverly Yacht Club in Massachusetts to a design by N.G. Herreshoff (shown above in 1894). Four of the surviving sisters were fully restored in 2008; see WB No. 203.

Few would dispute that N.G. Herreshoff is the most gifted and successful yacht designer the world has produced so far. A structural and mechanical engineer of great genius, he designed the boilers and engines for the steam yachts and military vessels he designed, and he created sailing yachts that were lighter, stronger, and faster than those of his competitors. Herreshoff boats have an unusually high survival rate, and many still sail either in original condition or after having been restored to original condition.

He invented hardware still in use today, including sail tracks and slides, and he improved the designs of winches, anchors, and cleats. He also helped popularize the use of fin keels, bulb-shaped ballast keels, spade rudders, folding propellers, hollow wooden spars, and metal spars. He is believed to be the first American to develop a practical fast catamaran. He also pioneered efficient semi-production boatbuilding methods at Herreshoff Mfg. Co.

His AMERICA's Cup defenders were VIGILANT (1893), DEFENDER (1895), COLUMBIA (1899 and 1901), RELIANCE (1903), and RESOLUTE (1920). Some of the most wholesome and beautiful, as well as fastest, racing yachts ever created under a rating rule were designed under the Universal Rule, which he devised around 1904. He himself designed many of the finest yachts built to that rule, in various classes always designated by letters, such as J, P, Q, and R. He also designed a large number of one-design classes, including the New York 30, 40, 50, 65, and 70; the Buzzards Bay 15, 25, and 30; the Bar Harbor 31; the Newport 29 and 30; the Fish class; and the immortal Herreshoff 12½, nearly 400 of which were built.

N.G. Herreshoff's son L. Francis Herreshoff was also a gifted designer and a much-beloved yachting writer. Another son, A. Sidney DeWolf Herreshoff, served as chief designer at the Herreshoff Mfg. Co. in its later years. Halsey Herreshoff, son of Sidney, continues the Herreshoff tradition today at Herreshoff Designs, Inc., www.herreshoffdesigns.com.

(A profile of Herreshoff appeared in WB No. 33–35. See also Capt. Nat Herreshoff *by L. Francis Herreshoff;* Herreshoff of Bristol, *by Maynard Bray and Carlton Pinheiro;* Recollections of N.G. Herreshoff *by N.G. Herreshoff; and* Herreshoff and His Yachts *by Franco Pace. The designer's half models reside at the Herreshoff Marine Museum in Bristol, Rhode Island; see www.herreshoff.org. Plans and specifications reside at The Hart Nautical Collections, Massachusetts Institute of Technology Museum, Cambridge; see web.mit.edu/museum/collections/nautical/html.)*

Dan MacNaughton is co-editor, with Lucia Del Sol Knight, of The Encyclopedia of Yacht Designers. *He currently works as a finisher at Artisan Boatworks in Rockport, Maine, and is a frequent contributor to* WoodenBoat.

COURTESY NEWPORT NAUTICAL TIMBERS

Newport Nautical Timbers is a new wood supplier in Rhode Island, with milling capacity of 52" in width and 45' in length. Mike DuPont and Ken Beck, both graduates of International Yacht Restoration School, are partners in the business.

who worked summers for Danielson while in high school, is currently working in the Henry B. duPont Preservation Shipyard at Mystic Seaport on the ongoing restoration of the whaleship CHARLES W. MORGAN, while Redero is working on the restoration of a large Trumpy yacht with McMillen Yachts in Portsmouth, Rhode Island. *Redds Pond Boatworks, 1 Norman St., Marblehead, MA 01945; David Redero, 786–493–3271; Doug Park, 617–834–7547; www.reddspondboatworks.com. Thad Danielson Boats, 42 French Rd., Cummington, MA 01026; 413–634–5339; thaddanielson66@gmail.com.*

■ **Mike duPont** and **Ken Beck** joined forces in September 2011 in Rhode Island to start **Newport Nautical Timbers**, which supplies premium, specialized woods for boatbuilders. They handle white oak, Atlantic white cedar, longleaf yellow pine, black locust, and greenheart, and their milling capacity reaches to widths of 52″ and lengths up to 45′. The company works directly with landowners to selectively harvest timber to high environmental standards. Both partners are graduates of Newport's International Yacht Restoration School, duPont in 2005 and Beck in 2009. They learned about selecting and cutting timber after working on yacht restoration projects, and one of their early milling projects involved cutting keel timbers for the 1885 schooner-yacht CORONET, which is undergoing restoration adjacent to IYRS. As they put it in a press release, "If you were going to build a boat, wouldn't you want a boatbuilder cutting the lumber you're going to use?" *Newport Nautical Timbers, Inc., 157B Prospect Hill Rd., Newport, RI 02840; 401–644–8488; www.newportnauticaltimbers.com.*

■ **Hélder Parreira** of **Berkeley, California**, has been making a study of the boats of his native land—Portugal—

and is integrating them into the boatbuilding educational program at the waterfront **Berkeley Boathouse**. Among the small canoes and punts the students have built is a boat, launched in December 2011, of a type traditionally used by farmers on the Mondego River in Portugal, and now becoming scarce. Parreira hopes to lead the students next in building a *bateira* and a *moliceiro*, both from the Aveio Lagoon region of the country, and also an Azorean whaleboat (see WB No. 146). The director of Berkeley Boathouse, he received an Ed Monk Scholarship from The Center for Wooden Boats in Seattle, Washington, to travel to Portugal to study boatbuilding directly, and he has planned another trip there for 2012. He has put up an informative web site, too: www.portugueseboats.com. *Berkeley Boathouse, Waterside Workshops, 84 Bolivar Dr., Berkeley, CA 94710; 510–644–2577; www.watersideworkshops.org.*

HÉLDER PARREIRA

Hélder Parreira has a longstanding interest in Portuguese boats, and in 2011 the boatbuilding program he leads in Berkeley, California, completed its first replica of one, a type used by farmers.

Offcuts

"Back in March of 2010," Rich Hilsinger, the WoodenBoat School director, writes from all the way downstairs, "the Alexandria Seaport Foundation hosted the first **Teaching with Small Boats Conference** which, for the first time, brought together individuals from 63 groups in North America who use small boats as teaching tools. It proved to be a tremendous success. Those who participated headed home with invaluable information on program design and implementation, integration of academics into programs, measuring and evaluating programs, and strategies for development and fundraising. A steering committee was created and has been busy creating a strategic plan and organizing a **second conference** to be held **April 27–29**, 2012, in Washington State at **The Center for Wooden Boats** facility at **Cama Beach** on Camano Island. All organizations or individuals, whether already established or interested in starting up, are invited to attend. The organization's mission is to instill in young people the values of scholarship, ingenuity, creativity, self-discipline, and a sense of accomplishment through the 'expeditionary' study of maritime arts, its history, and its relationship to success in math and science. If this sparks any interest on your part, contact Joe Youcha, youcha@alexandriaseaport.org, for more information on the Teaching with Small Boats Alliance and details on the upcoming conference, including programs and activities, fees, accommodations and meals, transportation, and so on."

Youcha also tells us that his Building to Teach program will follow the conference with a three-day, hands-on training session in teaching math through boatbuilding. The sessions are intended

for representatives of organizations involved in teaching boatbuilding for "under-served" youths. (See Youcha's article on the subject in "Getting Started in Boats," WB No. 224; see also Currents, WB No. 223, about Building to Teach.) There is an application procedure for those wishing to participate; see www.buildingtoteach.com/apply. Some funding support is available.

News from elsewhere regarding replica ships is not so great. From the *Post and Courier* in South Carolina, we learn that the 140′ schooner **SPIRIT OF SOUTH CAROLINA** (see WB No. 205), launched in 2007, is being **put up for sale** by the South Carolina Maritime Foundation. The organization is facing lawsuits for defaulting on $2.25 million in loans from a local bank and for being in arrears on $39,573 in rent to a former landlord. The organization is appealing far and wide for financial help, hoping to refocus its efforts on smaller-scale programs for at-risk youth. SCMF, 17 Lockwood Dr., Suite 501, Charleston, SC 29401; www.scmaritime.org.

Another **replica**, MATTHEW, built in 1997–98 in Bonavista, Newfoundland, to coincide with the 500th anniversary of John Cabot's voyage to the New World, is **badly deteriorating**, according to a CBC News report. Matthew Legacy Inc. is pleading with the provincial government to pump $1 million (Canadian) into repair and restoration so that the ship (not to be confused with another built in Bristol, England) can once again be a floating exhibit on the town waterfront. "She'll never go in the water again, not the way she is now," Fraser Warren, the ship's custodian, was quoted as saying. *See www.matthewlegacy.com.*

Randy Peffer writes with good news from **Great Guana Cay, Abaco, Bahamas**, about **boatbuilder** and mariner **Ned "Mac" McIntosh** of Dover, New Hampshire (see WB No. 139): "Mac suffered devastating burns when a carburetor backfired flaming gasoline into his face in the winter of 2011, but after skin grafts and a long recovery, he is back at his winter home, the Termite Terrace, a 100-year-old cottage on Settlement Harbour at Great Guana Cay. Mac is fully recovered, sailing dinghies daily with the island middle schoolers, drawing up plans for new skiffs, and celebrating his 96th birthday. On Guana, Mac and his wife, Terry, live the simple life. Their cottage has no plumbing and is off the grid, with a 'Mac-engineered' solar 12-volt electrical system reminiscent of his 1930s Atkin cutter. The most prominent feature in the living room is Mac's favorite bandsaw. 'How could a man live without one?' he asks."

Requiem for a Lumber Schooner

Currents in WB No. 224 mentioned that the Museum of History and Industry (MOHAI) near The Center for Wooden Boats in Seattle, Washington, will have parts of the broken-up 1897 schooner WAWONA in its exhibits, scheduled to open this fall. Emmett Smith, curator of watercraft at the Antique Boat Museum in Clayton, New York, who has had a hand the installation, writes with details: "Northwest Seaport in Seattle has faced tough questions with regard to the WAWONA, which was dismantled in 2009," he writes. Seattle artist John Grade is building a 57′ sculpture for MOHAI's new location in the former Naval Reserve Armory building in South Lake Union Park. The sculpture will consist of more than 4,000 linear feet of WAWONA's 4″×16″ Douglas-fir bottom planking.

"The Grade piece is one of many projects supported by Northwest Seaport after the vessel's deconstruction. Along with several other art projects, historical exhibits are being developed at sites important to WAWONA's history, including Eureka, California, where she was built; Grays Harbor, Washington, where she served as a lumber schooner; and Anacortes, Washington, her homeport during her fishing years. Original hardware will also be used in restoring her sistership, C.A. THAYER, at the San Francisco National Maritime Historical Park."

COURTESY JOHN GRADE

Bored and abraded for artistic effect, pieces of WAWONA's planking will be used in a sculpture.

Across the bar

■ **Herbert A. Mayea**, 91, September 22, 2011, Ira, Michigan. With his brother, Louis, Mr. Mayea (see WB No. 124) was the second-generation leader of a boatbuilding company that dates back to the earliest days of what became a golden age of elegant and powerful mahogany runabouts. His father, Louis T. Mayea, in 1907 teamed up with John F. Hacker, father of noted powerboat racer and designer John L. Hacker, to start the Detroit Launch and Power Company. Among the company's projects in the first generation were an early stepped hydroplane, KITTY HAWK II, the first boat to achieve more than 50 mph. They also built pontoons to adapt a Wright Brothers aircraft as the first seaplane. In 1911, the senior Mayea bought out the company and renamed it Mayea Boat Works and moved the company to Fair Haven, Michigan. In 1916, he renamed it Mayea Boat and Aeroplane Works. Upon his death in 1940, his sons, Louie and Herbert, assumed the company leadership, calling their line of boats Mays Craft, a simplified version of the family name. Except for service in the U.S. Coast Guard during World War II, Mr. Mayea spent his entire working life at the company his father founded, and the company now continues with his sons Don and Larry—with a fourth generation involved as well—in custom new construction and in restoration (see www.mayeaboats.com).

■ **Ellsworth Rice,** 79, December 15, 2011, Norwell, Massachusetts. By his own account—told with characteristic humor and a gleam in his eye—Mr. Rice started carving half models of boats when he needed something to do with his hands after quitting smoking. By then, he had retired from a career in carpentry; he had been a member of Local 424 Carpenters Union in his native Massachusetts for more than 30 years. He also worked for a time at a boatyard in Norwell, building small craft. He became a regular and much-liked teacher of half-hull modeling at WoodenBoat School in Brooklin, Maine, and he regularly exhibited his own works at various festivals, among them The WoodenBoat Show. He was also a carver of birds and duck decoys.

■ **Howard Davis**, 89, December 7, 2011, Groton, Connecticut. Mr. Davis worked at Mystic Seaport for 53 years, as he put it, "first as a caulker, then as a talker." Starting in 1958, he worked on the ships in the museum's collections, and he appears on the cover of WB No. 36 caulking the deck of the largest of the fleet, the whaleship CHARLES W.

MORGAN. Later, he became an exhibits interpreter concentrating on the Henry B. duPont Preservation Shipyard. He grew up working in boatyards in Mystic and in his native Noank, where he lived his entire life with the exception of his years of service in the U.S. Coast Guard during World War II.

John Meritato, 89, October 30, 2011, Waldoboro, Maine. "Jack" Meritato, as he was best known, was born at City Island, Bronx, New York. Graduating from high school during World War II, he went straight into the Navy, but he returned to City Island after his discharge in June 1946 and started working far and wide with his father, a contract caulker. In 1978, he moved to Maine, where he pursued his trade on a wide array of wooden yachts and schooners, though he continued to work as far away as Newport, Rhode Island, and Plimouth Plantation, Massachusetts, as well. He passed his knowledge along by teaching at WoodenBoat School in Brooklin, Maine, and at the Maine Maritime Museum in Bath.

Paul Stubing, 84, December 27, 2011, Deer Isle, Maine. Mr. Stubing would have been born aboard a Friendship sloop grounded out at the mouth of Maine's Union River had not his mother been rescued by peapod and brought to her ancestral home, where, hours later, Paul made his appearance. Throughout his life, Mr. Stubing, an artist and maritime historian, was always closely associated with boats, and during his youth he soaked up everything nautical in New Rochelle, New York, and during summers in Maine. He held Maine lobster license No. 789 and learned boat carpentry from exposure. After a stint in the service, he worked in yacht yards, began to paint seriously, and trained as an art restorer, becoming Mystic Seaport's first conservator. Living at Noank, Connecticut, he also lobstered and fished on draggers. He later established his own boatshop, restoring two New York 30s, among other jobs. In the 1980s, after the shop burned, he and his wife, Marian, moved to Deer Isle, where he was very active in the local historical society. A tireless collector of material relating to maritime history, Mr. Stubing generously shared his finds. A prolific but exacting watercolorist, he portrayed sloop-boats, lobsterboats, sardine carriers, and coasting schooners in his paintings, some of which are held by museums. His boat models, while few in number, perfectly reflected his combination of practical skill enhanced by sensitive artistry.

Charles M. Quinlan, Jr., 82, August 27, 2011, Portsmouth, New Hampshire. Although he was frustrated in his hopes to see a replica of a clipper ship grace the waterfront of Boston, Massachusetts, Mr. Quinlan was directly involved in one successful replica project, the Swedish 1638 colonizing ship KALMAR NYCKEL, completed in 1998 in Wilmington, Delaware. He also served as an advisor in an early 1990s restoration of the USS CONSTITUTION. A Tufts University graduate and veteran of the U.S. Air Force—and a rodeo trick rope performer in his youth—he maintained an avid interest in boats. He ran commercial ferries and sailboat charters in the British Virgin Islands, where he introduced many sailors to Foxy's Bar at Jost Van Dyke in the 1960s. His own boat, for many years, was the 43′7″, 1934 Sparkman & Stephens yawl BOSUN BIRD.

A Letter from Morbihan

A traveler's report, a prose poem, and a polemic

YVES LAMOUR

KATHY MANSFIELD

by Peter Neill

The charming Breton villages and communes of the Gulf of Morbihan fringe an extraordinary inland sea located midway down the Atlantic coast of France. This is the biannual site of what must certainly be the most fervid, participatory, and successful of all celebrations of maritime heritage anywhere.

I am writing this letter from the Gulf of Morbihan in an attempt to capture the essence of a weeklong festival of the place, the boats, the manifestations of culture, and the thousands of people united by their deep appreciation of things maritime. In all my years of exploration of such things around the world, I have found a no more vital concentration of the authentic, the artistic, and the personal expression of life on the coast with all its light and sound, its peace and tumult, and its myriad and dynamic human interactions in response to the sea.

Lance Lee (see WB No. 209) is my traveling companion. He is an educator, friend, and maritime artifact in his own right. We arrive in Vannes, the commercial center of the Morbihan region, a pretty town with a 17th-century core and a well-designed artificial yacht harbor that extends inward from the gulf for several kilometers in a modern "canal" with dockage on both sides. We begin to explore.

What surprises us most at first is the configuration of the gulf itself. It measures 5 by 21 kilometers, its shallows made deep twice daily by up to 4 meters (about 13′) of tide—some 400 million cubic meters of seawater pouring through a 1-kilometer opening between Port Navalo and Kerponhir peninsulas separating the gulf from the Bay of Quiberon in the Atlantic. The bus from Vannes to Port Navalo drops us at a seaside restaurant where we consume the first of many dozens of local oysters, followed by a view across the entrance where the first waterborne arrivals for the festival are reaching in through an astonishing 9-knot tidal current.

Tide is everything in this "little sea." Tide expands the waterscape, shapes the currents, nurtures the shellfish, and provides constant, changing, challenging conditions for small boats under either sail or power, of which there are many. It dictates all aspects of navigation, when you depart and return, where you go, and especially how you get there. Direct confrontation of the tidal flow is impossible, and so you watch the locals cross the leeward sides of islands and rocks, play the

***Above*— France's Semaine du Golfe—"The Gulf Week"— has become a major gathering for European traditional boats and maritime traditions since its inception in 2001. More than 1,300 boats registered for the event last year.**

Brittany's Gulf of Morbihan (map) is host to Semaine du Golfe. The assembled fleet travels in flotillas to various ports ringing the Gulf.

eddies, and set their courses where the water will inevitably take them. Add to this tide a respectable wind and the vagaries of weather, and you have a fluid cacophony of erratic waves, opposing currents, and contradictory forces without relief that demand no nonsense when it comes to seamanship. It is stunning to watch and makes for wonder.

Cafés and restaurants line the head of Vannes harbor, a large public space where are located the tents for sponsors and government agencies, stages for music and performance, and the exhibit area which this year is focusing on "The Maritime Life of the Basque Country," organized by Albaola, the Basque maritime heritage center. As with most things Basque, this is a brilliant effort. It brings together 200 costumed Basque volunteers, sailors, artists, dancers, and musicians; it also includes a transported boat shed and codfish flake, 20 small boats, cook tents from which to serve sardines, squid in ink, white-bean soup, olives, figs, assorted local wines, cider, and a traditional snack—the "tato"—a corn-based, tortilla-like sandwich stuffed with hot chorizo and melted cheese. On an adjacent 3 × 30-meter wall, Yvon le Cor, the well-known Breton marine artist, is painting an enormous outdoor mural depicting Basque culture, a four-day effort that he amazingly completed by the festival's closing ceremony.

Lance and I are declared "Honorary Basques." We each don a red scarf and beret, and are swept away to join Xabier Agote, the founder-director of Albaola, and his crew aboard a replica Basque whaling boat, under oar and sail in the first rendezvous in the gulf of the participating tall ships and small craft that have arrived from France, Germany, Belgium, The Netherlands, Scandinavia, England, and Ireland, among other countries. Ultimately over 1,300 boats are officially enrolled as festival participants, amplified in the ensuing days by local trawlers, oyster scows, pleasure boats, runabouts and family canoes, rowboats, and kayaks by the hundreds. The fleet is an exhilarating catalog of the best of Europe's traditional craft: exquisite yachts, restored gaff-rigged fishboats, Dutch leeboarded tjotters and Fries jachts, lateen rigs from the Mediterranean, replica oselvars and faerings from Norway, more than 75 rowing gigs manned by enthusiastic youth, and even two automobile-boats in constant danger of swamping in the rough waters.

This fleet is organized into flotillas by type, and each day each flotilla will race from one small port to the next; their arrival will present its own festival ashore for the local residents, tourists and summer visitors, and participants with more oysters, grilled fish, beer and wine, folk groups, old-instrument bands, fireworks, and more. Evening comes, and the sails—white, tanbark, and ocher—reflect in the water, a counterpoint to the colored lights on shore. Thus, every vessel is on the water by day, moors

Scenes from Vannes (see map, previous page), when the Semaine du Golfe workboat fleet was in harbor. *Above*—On Friday night, lights cast on the sails create a beautiful effect.

in a different harbor by night, and extends the festivities around the entire circumference of the gulf. Some 50 inflatable boats have been rented and innumerable volunteers enlisted by the organizers to provide order, safety, and communication. During the week, there are no serious accidents, just a few capsizes—mostly by boats far too small for the day's wind and wave.

Most important, there is a palpable sense of spirit, indeed joy, throughout the event. There is no competition, no winners or losers, no trophies or awards. Vessels pass by, their crews in song. Flags and streamers are everywhere. Some yacht crews are in perfect whites, others in costume; the fishing and rowing crews wear colored canvas smocks, stitched or stenciled with boat names and homeports. There are pipes, whistles, shouts, jibes, friendly insults, recognition by old friends, protestations of love, even quiet acknowledgment of the sheer beauty and pure grace of what is all around us.

The following day we are picked up in an inflatable by Anne Burlat and Jackez Kerhoas, the primary organizers of the "Semaine du Golfe" as the festival is known. These two also provide the same services, in alternate years, to the Tall Ships Festival in Brest, a city farther north up the coast, and a similar event, although more concentrated and less populist. I inquire about the cost. The week's activities are underwritten as an economic development and tourism initiative by the regional and local governments, an energy company, banks, a marine clothing company, an association of leisure boating interests, and several media partners including France 3 Bretagne Television and *Le Chasse-Marée*, the French nautical heritage magazine. These sponsors provide 1.25 million Euros, augmented by various fees, and a percentage of the concessions. Unlike Brest, there are no tickets sold; the event is open and free to the public.

We have the entire gulf before us, the several flotillas in motion, circumnavigating the interior coast. We come up alongside one craft after another to query origins and owners. We come ashore for lunch—oysters forever, smoked herring, local sausages, fresh bread. Children are sailing small model boats in adjacent tanks. Couples and families are everywhere, suggestive of the county fair without all the spun sugar tawdriness. The quayside booths offer nautical crafts, fancy ropework, spindrift carvings, and sea-glass jewelry. A question begins forming. We are invited to attend a special brunch for "International Friends of Maritime Heritage," hosted by Gérard d'Aboville, the general commissioner of the festival, renowned for his having crossed the Atlantic and Pacific by oar. The attendees are the French maritime museum directors, small-boat curators, scholars and researchers, and representatives from other European organizations: Thedo Fruithof from The Netherlands and John Robinson from the United Kingdom, who have been the driving force behind the European Maritime Heritage Association, programs in ship and small-boat restoration, and online cataloging of marine artifacts and cultural materials. I stand in the midst of all this and ask myself: Why can't we create something like this in the United States?

In the United States, we have many local events: wooden boat festivals, classic yacht regattas, small-boat gatherings and raids, the waterfront festivals in the Chesapeake, the Gulf Coast, the Great Lakes, and the Pacific Northwest. We have shows for boat designers

***Left*—Twiilight at the head of the harbor. *Above*—Saturday morning, before the exit parade.**

CLINT CHASE (THIS SPREAD)

and builders, rendezvous for engine enthusiasts, schooner races, model exhibits, music concerts…we have all these, and more, but we don't have anything that comes close to Morbihan.

There are reasons, and they include: our vast and varied geography, with no comparable location; no sponsors with overarching interest; no central or collaborative funding; no vision broad enough to encompass it all; no shared understanding as to the depth, breadth, and meaning of the maritime contribution to the history of our nation.

American interest in history is diminished as reflected in the decline in educational courses offered at every level, college majors, and attendance in history museums nationwide. With maritime history, the situation is critical. Our marine museums are suffering from shrinking admissions coupled to the decline in or diversion of philanthropic funds to other cultural and social interests. We are losing the context in which public awareness and engagement in things maritime can thrive.

What, then, can we do?

If we have not one venue, perhaps we might think of the entire nation as a place for a consolidated celebration of our maritime heritage? Might we, perhaps, bring together the leaders from the museums and boatyards, the festivals and enthusiast associations, from all coasts, lakes and rivers, to define a new strategy beyond the limited confines of organizational budgets and localized vision? There was, some years ago, an ad hoc group—the National Maritime Alliance—composed of such leaders that collaborated to affect the definition of standards and guidelines for the restoration of historic ships, an inventory of such ships by historical significance, and the establishment of an initiative within the National Park Service to assist and fund maritime heritage projects. Might such a group again convene to produce a *virtual* festival aggregating the energy of existing events, programs, and organizations so they can be promoted as a unified, ongoing, year-round American expression of the vitality and meaning of the sea? Perhaps the example of Morbihan might fire in us a new imaginative response.

On the final day, there is a parade. As the first vessels appear, the wind dies. The distinction between the participating vessels and the intruding modern spectator fleet dissolves into a blur of wood and plastic, rolling chaos. Helicopters circle madly overhead, positioning for the "parade shot" that may not now be theirs to capture. The schedule collapses. Anne Burlat rolls her eyes, lights a cigarette in a gestured fatalism that accepts and assimilates the loss of control.

The *participants* have taken over the event, and the ensuing apparent lack of order is an affirmation of *liberté*, not a denial of authority. But Morbihan is transcendent, and the human engagement remains, the course as challenging as always. Seamanship requirements are heightened. It is a vision as pure as life, the fluency of the sea, myriad aquarians moving in streams, ships, like us, afloat in turbulent tide, one, many, and all, each bound for home.

Peter Neill was executive director of South Street Seaport Museum in New York City from 1985 to 2005. He was founding chairman of the third Apprenticeshop in 1988, and remained with that organization until 2003. He is currently executive director of the Word Ocean Observatory (www.thew2o.net).

LESLIE TULLOCH

Managing the Dream

A guide to keeping boatbuilding expectations in check

by Michael Higgins

In 2009, I launched a 38′ Paul Gartside–designed gaff-rigged cutter called SAMARA T. I'd spent the previous 10 years building the boat. Upon her launching, I felt like a kid going to the first day of high school wearing a suit that his grandmother had made for him: a nice suit to be sure, but nonetheless a very un-cool homemade suit.

I am a working-class boatbuilder of modest means. I am married to an artist, we are raising a daughter, and we do not come from wealthy families. In short, we do not have an abundance of disposable money. So, while building our boat, I made many decisions based on limited finances. Naturally, I was concerned as the project neared completion: How was my boat going to stack up next to all of the modern production boats in the harbor? Much to my surprise, I've been overwhelmed by compliments from fellow sailors; never did I imagine that such a boat, built on a limited budget, would elicit so much favorable comment. And I learned that, through persistence and a sensible plan, it is possible to build a fair-sized boat on a small budget—if one is willing to pace the work over a span of years.

I thought some of my experiences might aid other aspiring builders in choosing, planning, and budgeting their potential projects. The following is a distillation of the lessons I learned—things I would strongly encourage an aspiring builder to think about before narrowing in on a dream boat project.

***Above*—Michael Higgins, a man of average financial means, built this 38′ cutter, SAMARA T, over a period of 10 years. With a carefully managed budget and well-paced work, he was able to keep the project moving—and complete it.**

JAMES NICHOLSON

"Have a place to build your boat," counsels Michael, who bore the expense of moving his project four times during construction.

Decide what you want to do with the completed boat.

This should be the first question a designer will ask you, so be prepared to answer it. Sit down now and really think about your expectations and limitations. Will you circumnavigate the globe or sail around the lake? This can be a circular process, but as you go around and around, the circle will get smaller. Being pragmatic at the outset, although not as much fun as envisioning your dream 60′ schooner, will increase the likelihood that your boat will one day actually be completed.

I was looking for a comfortable, reasonably fast cruising boat. I was looking to build a boat that recalled a romantic era, a time when, at least to our contemporary sensibilities, life appeared simpler. I also knew I didn't want a production boat. I wanted more character—something unique. We'd sail the boat on weekends and summer holidays, and maybe make a trip from our home in Nova Scotia to the Caribbean when our daughter is finished with school. For inspiration I studied the small cruising boats of well-known voyaging couples: Eric and Susan Hiscock, Miles and Beryl Smeeton, and Lin and Larry Pardey. The Hiscocks sailed everywhere, and somehow managed to do it in very simple boats, with no self-tailing winches or hydraulic backstays. They enjoyed years of voyaging without hot showers and refrigeration, electric anchor windlasses, or 21st-century electronics packages. Which leads us to the next point.

Modern equipment and complex systems are not required and are very expensive to buy and maintain.

I find that life aboard is more enjoyable without the complications of modern conveniences. Once you realize you can live without pressurized water and a suite of state-of-the-art electronics—not to mention roller furling, an electric anchor windlass, and self-tailing winches—things become much more reasonably priced. It's easy to add items later should your finances improve, but it is defeating to realize that you have started more than you can finish. I cannot stress this point enough: simple, traditional, handmade elements will last a long time and be so much less expensive than manufactured ones. Best of all, though, they look wonderful and personal.

Hire a skilled designer.

Unless you have a strong design background, I highly recommend this. If you like the work of a designer who has had experience with amateur or home builders, so much the better. I chose Paul Gartside because he draws such beautiful boats and his drawings are exquisite. The accuracy of his work saved countless hours

RUNE BURDAHL

Rune Burdahl of Norway built a Paul Gartside–designed cutter of similar size to Michael's in this tarpaulin-covered bow-framed shed. A heavy snow load collapsed the roof of the structure in the winter of 2002, but Rune rebuilt the shed and finished the boat, in which he's cruised extensively through Europe.

during the construction, and in the end I got the boat I wanted and more, specifically because of Paul's knowledgeable input. We have learned a lot in the past 100 years, and there is no harm in choosing wisely from that knowledge. Paul incorporated contemporary building methods while delivering a classic look and feel. There are many good designs out there, and it is not necessary to hire a designer if you can find just what you are looking for in an existing design, but remember: A living designer can answer questions and a dead one can't.

As for the additional cost of commissioning a new design, all I can say is, this may well have been the most effective money I spent. I was so innocent at the beginning of this project that I really needed to have a skilled professional designer onboard. He kept me from making many a wrong turn. Remember, "You don't know what you don't know." Shop around and look at lots of boats. The process will help you clarify your thinking, and the clearer the picture you start out with, the more likely you will get there.

Displacement is perhaps a more accurate measure of a boat's size than length.

Consider this comparison of Nigel Irens's 40′ Westernman cutter to my 38′ SAMARA T. Both are excellent boats, each with their own unique and wonderful qualities, but despite the slight difference in overall length, the Westernman weighs 40,000 lbs vs. SAMARA T's 20,000 lbs. You must purchase each of these pounds, whether they are in wood, lead, or rig. And speaking of rig, to move 40,000 lbs through the water you will need that much more sail area, and you pay for it by the square foot. Without starting a debate about the virtues of a particular design, remember that folks have sailed all over the world in small boats. Boat size should be determined by your resources, and choosing a boat that is not going to stretch you to the breaking point is crucial to successfully completing your project. I would highly recommend taking a good look at well-designed, modestly sized boats. Be clear about how long you want to be a boatbuilder and how long you want to be a sailor.

Have a place to build your boat.

At the outset, I didn't have a sheltered space, but I thought I would be able to beg, borrow, or steal one. My penny-pinching ways ended up costing more in the end. I had no idea that this boat was going to take me 10 years to finish. (In fact, I would offer that number as a joke whenever anyone asked.) The truth is, it will take longer than you think and then some, so you might as well get yourself properly set up from the start. I quickly learned that just because it is *my* dream, doesn't make it a potential landlord's dream. You will need a space at least half again larger in area than the boat's length times its beam.

My wife wisely suggested that if we were indeed going to take on such a project, maybe we should move from our downtown urban home to a house where we could build a shed. I thought this would be too expensive and time-consuming. I was too eager to get started on the boat, but by launching day we had moved the project four times, building a shed on rented land, and moving twice ourselves. That was not a very efficient use of our money and energy. Cranes and trucks are cool but expensive. Not having a space of our own resulted in stressed friendships, gray hairs, and a stack of rent receipts. This was some of the least-effective money spent. The shed, however, was an excellent investment. With the help of friends, most of whom are still on speaking terms with me, we were able to build a 20′×44′ shed in about 160 hours, at a cost of $3,000. The building employed simple but sound construction and was roofed in steel, bought used. For a long-term project, I am not a fan of sheds covered in plastic. As an alternative, I recommend "shingling" with 4′×8′ sheets of cheap plywood or similar panels and roofing with steel, as I did. By the time we were finished, our shed had sheltered the boat through five Canadian winters as well as a hurricane, and after dismantling, I was still able to sell its materials for $500.

Be realistic about how much money you have for a boat project.

It's sometimes hard to estimate future income, so try to err on the conservative side of things. I tend to be a fairly optimistic fellow, which is a good quality except when it comes to boats and budgets. I must say, frank conversations with other builders helped me realize the

sums of money needed. It also moderated my optimism enough to keep me conscious of the budget throughout. In a project of this duration, things will come up that are hard to predict, but in the end I think the process would be more enjoyable for all involved if an honest attempt at budgeting were made first. Being naive did allow me the courage of the uninformed. It also meant that it took 10 years, and there is now debt to deal with. Perhaps this is a good illustration of why Lin and Larry Pardey built smaller boats. Walking the line between the ambitious and the foolhardy can be a very delicate balancing act.

> Be realistic about how much time you have for a boat project.

We're not talking about the occasional weekend or evening here. To free up even a few thousand hours will mean a tangible change in your life's schedule. If you are involved in the lives of others, having their support will make all the difference in such an undertaking. Many a visitor to the shop would tell me how lucky I was to be able to do this project. Your family must be taken into consideration when planning such a major change in your day-to-day schedule. I did not want this boat to ruin relationships, but at times it certainly pushed the limits. For estimating construction hours, ask designers and builders for their thoughts on the time required. These should be numbers based on their real experience; if they aren't, such estimates are hardly worth the paper they are written on. It's all too easy to fool yourself into believing you can do more in an hour than you really can. All told, including help from family and friends, there are about 7,500 hours of work in SAMARA T spread out over 10 years; that's approximately 14 hours every week. Think of it as working every weekend for a decade while not taking a vacation or accepting invitations to go sailing.

Because the boat was not built near our downtown home, it was very difficult to put in an hour or two of work during evenings or weekends. So I put in the bulk of my labor during the week, while my wife supported the family, and I put in some weekends, too. This arrangement offered fantastic stretches of time working on the boat but was stressful in that money was always tight, I was physically removed from the home for the day, and my lost wages started to add up to a troubling sum (about $100,000; we'll return to that shortly). In estimating your budget and time requirements for a boat, don't forget that if you take time away from paid work to build your boat, not only will you be spending money on the boat, but your income will go down.

MICHAEL HIGGINS

For long-term shelter, Michael recommends a building sheathed in cheap plywood, rather than in plastic. This photo shows his shed—which he was able to sell for its materials upon completion of the boat.

> Traditional skills can save much money.

I chose a gaff rig for many reasons: I love the look and it is in keeping with the romantic vision I have of the boat, but it also offers up many practical savings. Among the new skills I was able to develop, with the help of a generous friend, was metalworking. The hardware in a gaff rig is simple, and I was easily able to fabricate it out of mild steel and have it galvanized, which made it much less expensive than fabricating it in stainless steel or casting it in bronze. For comparison, the galvanized chainplates were less than $100 for all eight of them, compared to more than $500 in stainless steel. Bronze casting is another steep step in cost. But best of all, with a few simple tools, mild steel is much easier to work than stainless. I also learned how to splice wire rope (and was surprised to find that it's not very difficult), which again offers large savings over swaged or Sta-Lok–type fittings. These and other traditional methods are tested and true. Just because they are old doesn't mean they are obsolete.

> Traditional styling not only looks good, it can save you money, too.

To me, the look of SAMARA T is more influenced by working craft than by modern yachts. There is almost no bronze and absolutely no teak. The ash-shelled blocks and galvanized rigging are right out of the coastal schooners that used to be so common in Nova Scotia. Belowdeck there are a lot of white-painted surfaces, and by choosing locally available hurricane-felled pine and elm, I was able to build a simple, tasteful interior. The portlights, for example, are elegant non-opening ovals, but made in-house, costing $30 each as opposed to $200 or more for commercially made bronze units. There are 10 portlights in SAMARA T. You do the math.

Many of the simple choices I had to make because of finances have received compliments. Someone even pointed out how smart it was to make non-opening portlights because opening ones often end up leaking.

Consistency of finish is important to a boat's overall effect. Hurricane-felled pine and elm yielded the wood for SAMARA T's interior; accents of mahogany came from a leftover plank.

I didn't have the courage to tell them that they were all that I could afford; and besides, I can live with the idea that I did something smart rather than cheap. People have noted they find things uncluttered, clean and bright, while all the time I was just trying to save money. There's an assumption that I made good, deliberate choices, when in fact I was simply limited by funds. Such seemingly restrained taste is a nice incidental benefit of a small budget.

The trick to pulling off a humble but good-looking boat not only lies in a great design but also in a consistent finish. Don't start out spending lots of money for teak, varnished mahogany, and polished bronze only to run out of money and end with galvanized steel and pine. The worst outcome, though, is not being able to finish the boat at all. Start simple and keep it simple. I had one mahogany plank left over from another job, and I used it to put a little half-round bead around all of the pine doors in the cabin—a simple and inexpensive touch, but one to be admired for its appearance.

Spend your money wisely.

Trying too hard to save money, on the other hand, can be costly. I bought a huge pile of old Douglas-fir beams cheaply, and thought I had won the lottery. In the end I invested over 120 hours pulling nails, resawing to usable thickness, moving, and milling this wood. There was also the cost of trucking, not to mention the lost income from taking time from my job. Sadly, the milling of a lot of this recycled wood revealed checks that made it all but unusable. Later, when I ended up having to buy more "new" Douglas-fir, I realized that new wood at a good wholesale price was cheaper. Spend your money wisely, do your research, and buy good wood and quality tools.

There are advantages to building a boat over a protracted period of time.

You can buy much of what you need either secondhand or slowly. Have a list of gear needed. It's a great reason to haunt used-boat shops and flea markets. I was able to buy a moderately used diesel engine at about 20 percent of the cost of a new one. But again, the less money you spend, the more time it takes: That engine needed a little attention, and I had to track down a transmission. Many unexpected hours were required to make up for the fact that I just simply was not going to write a $15,000 check. I did find a great propeller and four vintage winches on eBay. Over 10 years, things turned up in the most unlikely places. The galley stove, for example, came from a movie set.

In the end, to build a 38′ boat weighing 20,000 lbs, I

MICHAEL HIGGINS (THIS PAGE)

Certain jobs on a long-term project are cause for celebration and community. Here, friends help Michael glue up his mast; he treated them to barbecue and beer that afternoon.

LESLIE TULLOCH

SAMARA T under sail. Was she worth the effort? This photo seems to say so.

spent about $85,000 in total and invested about 7,500 hours of labor, at least 5,000 hours of which I could have been spending out earning money. Thus, I lost at least $100,000 in income. So when you add it all up, in the past 10 years I have been investing approximately $8,500 and 750 hours per year—or to look at it another way, $8,500 and 750 hours per ton of boat. I would hasten to add that while SAMARA T is now equipped for coastal cruising, she still will need an additional investment to outfit her properly for deep-sea voyaging. I also now have a résumé that would suggest that I am unable to hold down a steady job, which may or may not be true.

Enjoy the process.

The challenge is to find a balance between working toward the completed boat and enjoying every hour of every day in the shop. Don't deny yourself the satisfaction of a well-done job, no matter how small, just because your "to do" list is longer than the main boom. I had an old chair in the shop, and when my energy was low or my back sore, I would step back and have a seat. This was sometimes a great reminder of how far the project had progressed and, by extension, a source of inspiration. With your head down toiling away, it's easy to get lost, and when the work at hand is hard and repetitive, it's easy to become discouraged. The only way to complete a boat is to put in all the required hours. The only way to put in all those hours is to enjoy the vast majority of them.

I was not always good at marking various accomplishments as they went by, and I think I missed opportunities to have little celebrations. I remember the day we rolled the boat right-side up. It was cause for a party and a little reflection, an opportunity to mark and enjoy the progress. Unfortunately, I let the moment pass almost entirely unacknowledged. In contrast, the day we glued up the mast was great, the work and subsequent barbecue shared by 12 friends. Not only was I grateful for their help and enthusiasm, but it also allowed them to share in the project and get a sense of accomplishment.

Was the time and money worth it? You bet, but it sure wasn't easy. I lost faith a couple of times, did virtually no work on the boat for an entire year, and ultimately finished it only because of a remarkably supportive family.

Do not underestimate what a boatbuilding project like this will take from you and your family, but know that, if handled thoughtfully, the project will be a rewarding and life-changing endeavor. Even though my back aches, and I'm still at times looking for the next job, I wouldn't change a thing. I love boats too much. Watching from astern as the curves of a beautiful hull emerge from beneath the water is the great reward. To view a set of hull lines and be able translate them into a living, moving sculpture is what it's all about. The first days of sailing SAMARA T were magical; all of my hopes and dreams were realized, many even surpassed.

So after years of dreamily admiring boats and kicking around the idea that some day you might actually build one, perhaps now's the time to start. As for me, I've got a little dinghy project going in the garage.

Michael Higgins is an incurably romantic boatbuilder and writer living in Lunenburg, Nova Scotia. He launched his dreamboat, SAMARA T, in July 2009. He is currently working for Covey Island Boat Works rebuilding the schooner BLUENOSE II.

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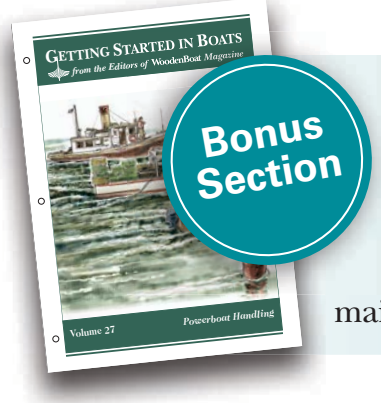

Bonus Section

Getting Started in Boats

A beginner's guide to boating, simple boat construction, maintenance and how-to's

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Curved and Bent Sternsheets

Lessons in scaling, patterns, and fitting

by Greg Rössel

ROBIN JETTINGHOFF

The shapely sternsheets on this small Whitehall began with a grid drawn on the plans and then used to create an accurate pattern.

Boats often have curved, carefully fitted pieces whose combined shapes and bends are quite elegant. The swooping horseshoe-shaped sternsheets seen in many pulling boats, such as the Whitehall, are a good example of this. Bent to loosely follow the sheer of the boat, and fitted to the curves of the sides, they look so natural, but can be a bit of a challenge to get right. A careful study of how to accomplish a good fit in this area will teach skills that can be applied to a variety of other jobs, including curved transoms, planking of very shapely areas, and cabin sides.

Let's begin with the drawing. What you see on each view of the construction plans is incomplete, showing only two dimensions of a finished piece that also has shape in the third dimension. With these stern seats, we're dealing with shapes or dimensions in six different areas:

- The seats need to follow the sweeping curve of the risers that support them.
- The edge of the seat that contacts the frames must be fit to the curve of the hull.
- The edge of the seat that contacts the frames has a winding bevel.
- The edge that contacts the transom also has a bevel.
- The inboard edges of the seats have an eye-pleasing curve.
- The seat must be cut to the correct length.

Remember, too, that the port and starboard side seats, which are mirror images, must be symmetrical.

We'll record all of this information on a pair of plywood patterns—one for each side's seat—sprung down onto the framework that will eventually support the seat. The plywood pattern stock should be stiff enough to hold its shape, yet flexible enough to gently bend—¼″ or ⅜″ thick is about right. The boat's drawings are used to determine the outlines of these patterns, so if you'll allow me a short digression, I'll explain how to do that.

Making a Pattern from the Construction Drawing

To replicate the shapes of our seats as drawn on the plan, you'll create a scale grid (Figure 1, below). To do this, you'll need a plastic triangle, a scale rule, and a pencil. Check the plans for their scale; in this example, it's 1½″ to the foot. Then, using the triangle and working off the baseline, draw a grid over the component. Make the squares of your grid to scale; for plans on which 1½″ represents a foot, ¾″ squares would represent 6″, while ¼″ squares would be

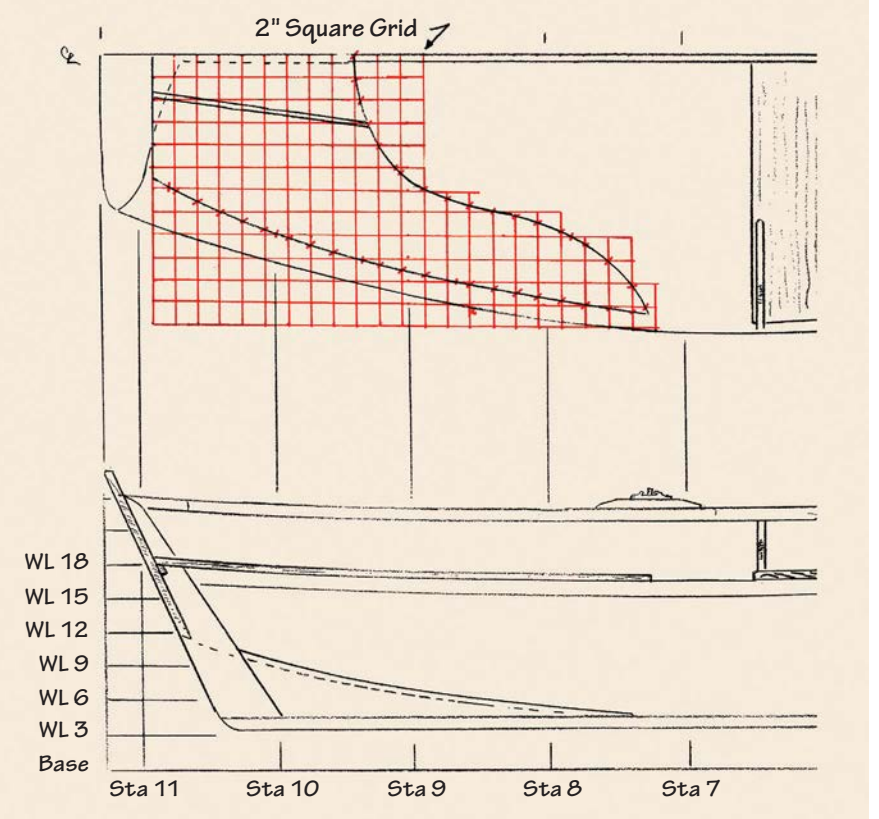


Figure 1. The centerline of the plan view will work as a baseline for your grid. Ensure the squares are accurately drafted. Make tick marks on the grid at all points where it intersects with the sternsheet outline.

one-third that, or 2″. You'll want to use squares that are small enough to give you enough reference information to replicate the curves and other details of the component accurately. The perimeter of the seats will intersect with the lines of this grid at points whose locations you can measure with your scale rule.

Next, draw a corresponding full-sized grid on your pattern plywood; this grid will have actual 2″ squares. Using the locations obtained with your scale rule, transfer the intersection points from the scale grid to the full-sized one. Connect these points using battens or a straightedge. The result will reflect what is drawn on the plans, but note there will be distortion in pieces that are tipped up, like transom knees, or sprung parts, like the sternsheets in our example. It should be close enough to get you started, though, because at this point the patterns are still rough: They'll be cut slightly undersized along the edges that contact the hull, and they'll be left well oversized along the inboard curves of the seats. We'll refine it as we go, as you'll see.

Refining the Patterns

After cutting out the pair of patterns, put them into the boat so that, with downward pressure, they'll touch the framework that will eventually support the seats. While the sternsheets in this boat do not reach to the center thwart, they do in some boats. In that case, this pattern should cover the cleats that will join them to the center thwart. Connect the patterns to each other by clamping and screwing or gluing a piece of straight stock from one piece to the other.

To bend the pattern into position, clamp a cross brace made from a stiff piece of wood from sheer to sheer above the wood strip connecting the two pattern pieces. Then, place blocking between the pattern and the cross brace, and use a pair of wedges to drive the pattern stock downward until it contacts the riser and cleats. With that done, we can now refine our pattern.

Make up a series of "feeler gauge" blocks about 1″ wide, 3″ long, and of a thickness that will, when combined with that of the plywood pattern, equal the thickness of the actual seat. In other words, if the seat is to be ¾″ thick and your pattern is ¼″, your blocks would be ½″ thick.

These blocks will capture the outline of the seat where it contacts the frames and the transom; they'll also record the winding bevel. Here's how: Slide each one of the blocks outward on the pattern until it overlaps the frame enough to trace the angle of the frame onto the end of the block. Remove the block and cut the traced angle with a band saw. Then, return the block to the plywood and slide it up against the face of the frame (Figure 2, right). You've now recorded a point (a short line, actually, but it will suffice for describing so gentle a curve) along the outline of the seat's edge, as well as the bevel at that point. Fix the block into place with hot-melt glue.

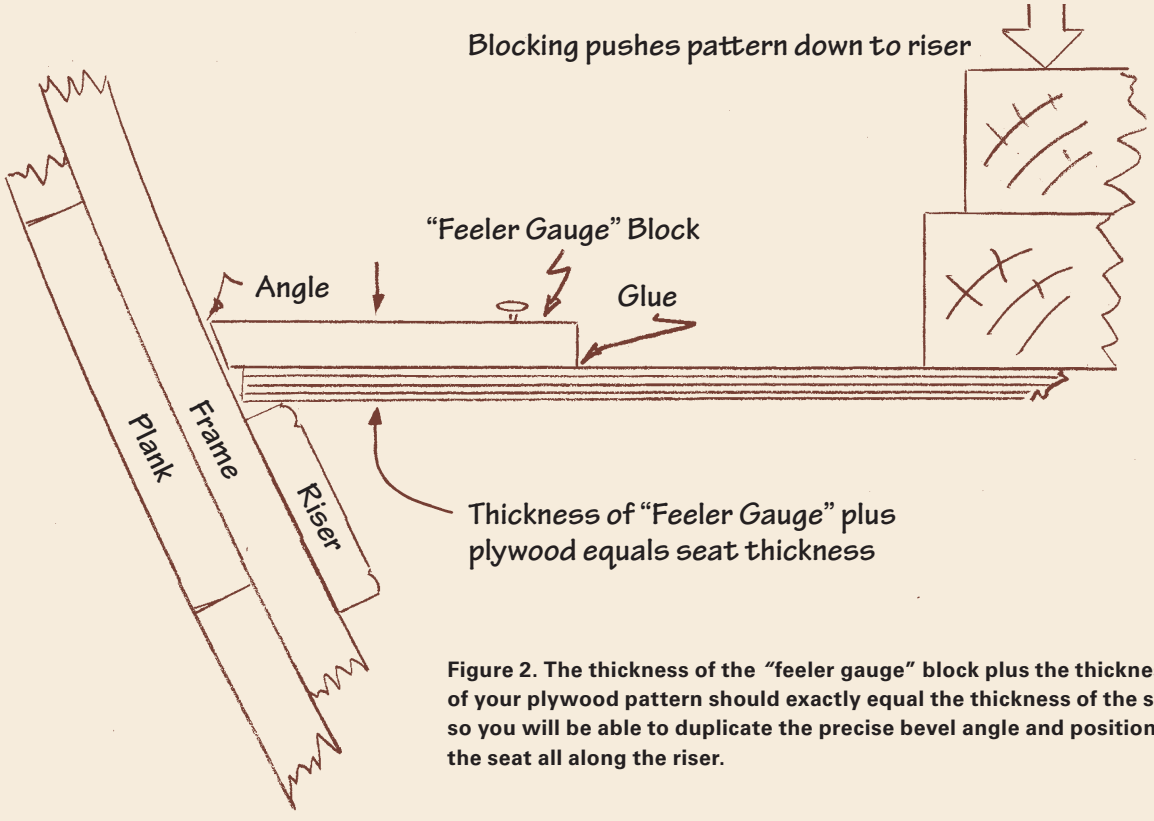


Figure 2. The thickness of the "feeler gauge" block plus the thickness of your plywood pattern should exactly equal the thickness of the seat, so you will be able to duplicate the precise bevel angle and position of the seat all along the riser.

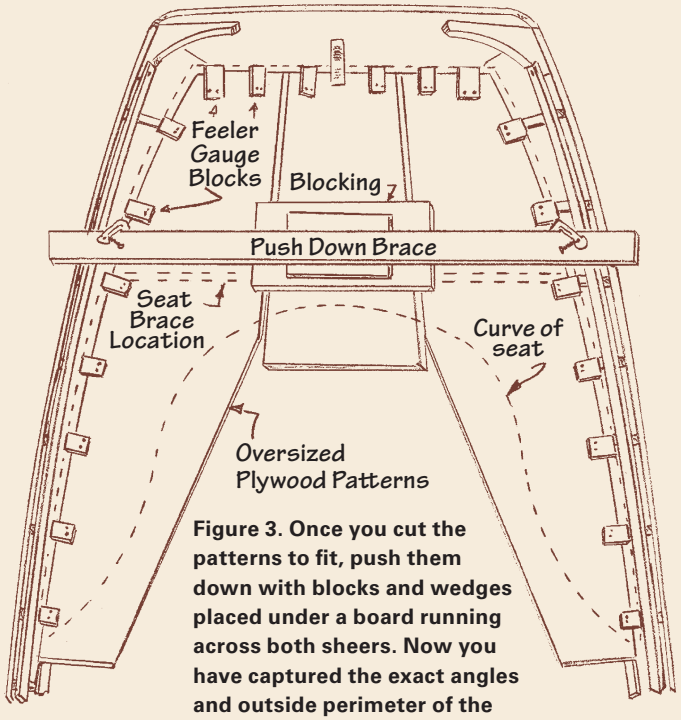


Figure 3. Once you cut the patterns to fit, push them down with blocks and wedges placed under a board running across both sheers. Now you have captured the exact angles and outside perimeter of the sternsheet.

Repeat the operation at the next frame, where the angle will be slightly different. Glue that block into place as well. Continue for each frame, and use the same technique to capture the angle and location of the inside of the transom, and the sternpost or knee, if there is one. With that done, we now have spiled, or recorded, all the information we need to start making the actual sternsheets (Figure 3, left).

Remove the completed pattern from the boat and place it onto a fresh piece of thin plywood large enough to draw out the outer perimeter of the entire seat. Transfer a point from the top edge of each of the feeler gauge blocks onto the plywood (a combination square will be helpful in plumbing these points down to the new pattern), then connect the points with a flexible batten (on the curved sides) and a straight-edge (along the straight transom). Again, if your sternsheets reach to the center thwart, mark the position of that joint also.

With the seats' outboard perimeters thus established, you can lay out the shape of the inboard edge from the plans. Scribing a grid, drawn out from a centerline, onto the face of the new plywood pattern as described above will help ensure symmetry here. As noted, the shape won't be an exact duplicate of the plans because of the pattern's slight bend; here your eye for a fair curve is more important than accurate measurement.

On this new plywood pattern, you'll lay out and then cut the shapes of the pieces that make up this fan-shaped seat assembly.

Trace and Fit

The next step is to trace the patterns onto the outer pieces of the sternsheet stock. At this time, cut only the outer edges—those touching the frames and transom. After you've faired the curve along the frames, refer to the bevels on each of the feeler gauges to plane a winding bevel onto the seat's outer edge. The transom edge will take a constant bevel because the transom is not curved. Don't cut the edge joints, (the seat-to-thwart joint, if applicable), or the inner curves until you have accurately faired, beveled, and fit these outer edges.

With the outer edges shaped, press the pieces into place as you did the pattern stock and give their fits a final check. If they are satisfactory, you can fine-tune the joint between the center thwart and these pieces (if it exists), and you can determine the edge joints between seat boards and fit the remaining pieces of the side seats, if there are any.

Once you've fit the side seats, put one of your first side seat patterns in place again and trace the inner curve, then stack and align both side seat pieces, and cut and fair them together so they're symmetrical. Bring the pieces back to the boat, spring them into place, and screw them down.

This leaves just the center section to fashion. Put a plywood pattern that is a bit larger than the center section on top of your newly fastened side seats and trace out the shape. Cut the straight sides and transom edge to the lines, but leave the curved forward edge long to allow for fitting. Plane a bevel into the transom edge and plane the joint edges square. Put the center piece (or pieces, if your available stock has forced you to divide this piece into two or three) into place next to the side seats. Check the fit of the bevel and make certain the gaps between seat boards are equal. Temporarily anchor them into place and, finally, trace the inner curve onto the stock. Place a batten over this drawn curve to ensure it fairs nicely into the curve of the outer pieces. Re-draw if necessary; cut; fair; and install.

That's a lot of steps, but the resulting tasteful seat is worth it, and the lessons in scaling and fitting will serve you well.

Greg Rössel is a contributing editor to WoodenBoat.

The Boat from Oquossoc

A Rangeley double-ender's restoration and Maine legacy

Text and photographs by Donnie Mullen

In 1974, when he was only 21 years old, Michael Bontecou was settling his father's estate when he was reminded of a fishing camp in Maine that had been in his family for generations. Although Bontecou recalled that his father had made a trip there some years before, he was foggy on the details.

His lawyers advised selling the camp, but Bontecou, an avid fisherman interested in the family ties that bound him to the property, instead purchased it from the estate sight-unseen for $5,000. "One of the best deals I ever made," said Bontecou, who lives in Rhode Island and works for a land trust.

As it turned out, the property was part of the hallowed Oquossoc Angling Association (OAA), an assemblage of private camps that share a headland at the confluence of the Kennebago and Rangeley Rivers in western Maine. Dating back as far as 1868, when its founders were drawn by the region's then-legendary (and long-since fished out) world-record-sized brook trout, the OAA is recognized as the oldest private fishing club in the United States. Bontecou's purchase made him a fourth-generation owner of the camp and a fifth-generation OAA member. His first ancestor to join the association was his great-great-grandfather, Jesse Metcalf, in 1882. The family's cabin was built later by Bontecou's great-grandfather, Jesse H. Metcalf, who represented Rhode Island in the U.S. Senate from 1924 to 1937.

When Bontecou first arrived in the Rangeley area in 1975, he was touched by a quality both quaint and rough. "The area had a different aura about it," he said. At OAA, he found a shaded campus of turn-of-the-20th-century camps overlooking the mountain-edged expanse of Mooselookmeguntic Lake. The buildings were worn, but charming. Of particular interest was the boathouse and its unparalleled collection of Rangeley boats, an elegant type of rowboat that is native to the lakes and, as Bontecou would soon learn, intertwined with the OAA.

In his cabin, a towering stone hearth was accented by fading photographs of his great-grandfather and French posters from the early 1900s. In a closet, he discovered a fishing license from 1937; a pair of stiff, black wingtip shoes; and a set of oars painted in a two-tone pattern, half black, half orange. Back in 1884, the association's members decided that the hulls of all the members' Rangeleys should be painted black with

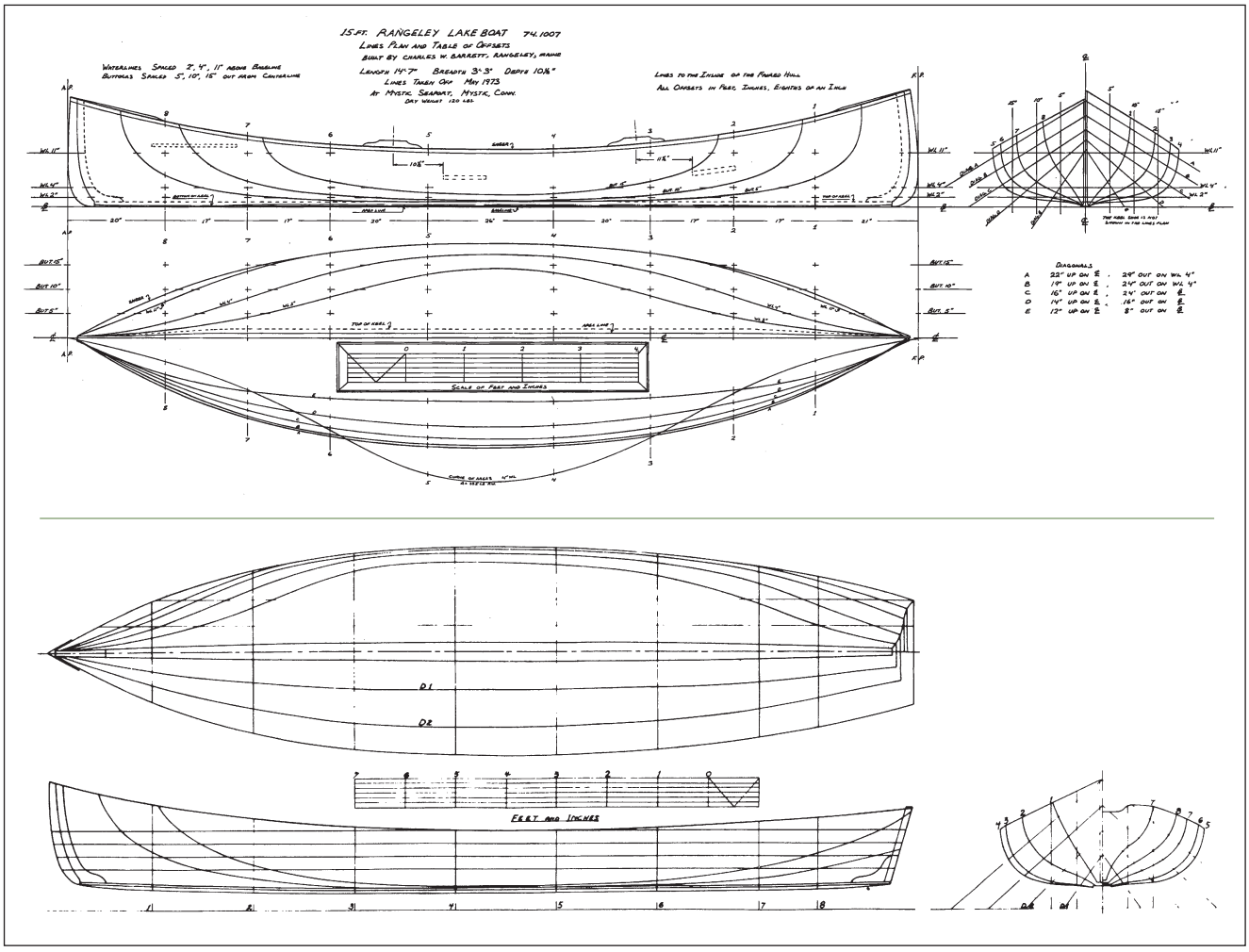
OLGA LANGE

***Opposite page*—A double-ended Rangeley boat from the early years of the 20th century is still in use, after restoration, on the waters of Mooselookmeguntic Lake. *Top*—The Oquossoc Angling Association, founded in 1868, is believed to be the oldest private fishing club in the United States. *Above left*—Spectacular brook trout fishing was a primary attraction for the formation of "camps" on Maine's western lakes. *Above right*—About 40 Rangeley boats, in a wide variety, are stored in the association's boathouse. *Right*—Michael Bontecou's restored boat (shown opposite) took its place among a fleet of much-admired, and still very actively used, Rangeley boats.**

red sheerstrakes. Tradition further held that the oars should be painted to match the hull and interior colors. Gray was common for interiors, though occasionally Argentine orange was also used. Even today, most of the 20 or so camps have a Rangeley boat or two to call their own. More than 40 of them are stored in the common boathouse. When Bontecou asked Harland Kidder, the association's superintendent at the time, about the boat that might match his oars, Kidder just shrugged his shoulders. "There hasn't been a boat connected with your camp for years," he explained.

Decades passed, and the oars collected dust. Meanwhile, Bontecou, an amateur historian, became fascinated by the family history that linked him to this special region of Maine and the beginnings of the OAA. "It made me feel like, 'Wow, I'm really a part of this place through all the generations that have been here,'" he said.

In 2000, after years of boating with an aluminum skiff and a plastic canoe, Bontecou purchased a



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JOHN GARDNER/*BUILDING CLASSIC SMALL CRAFT*

***Top*—Rangeley boats were typically built without plans, but a 15′ double-ender built by Charles Barrett, who began building Rangeleys with his brother Thomas in 1888, is in the collections of Mystic Seaport, Connecticut, where its lines were taken off in 1973. *Above*—Rangeley builders adapted their boats to have "square sterns," or transoms, to accommodate outboard motors, which quickly gained popularity. Maritime historian John Gardner documented a square-sterned boat in his book *Building Classic Small Craft* (International Marine, 1977). The boat, 17′ LOA, 4′ beam, and 15" deep amidships, was built in the 1930s by Herbert Ellis.**

Rangeley of his own from Maurice Belanger, who had replaced Kidder as OAA superintendent in 1989. The Rangeley boats were built in two styles, the older double-ended version or a transom-sterned boat locally called the "square-stern" style. Bontecou's new boat, which Belanger had restored, was an early version of the square-stern design, officially known as the Number One transom Rangeley type.

"I had boat envy," Bontecou said with a laugh. "Everyone around me had these beautiful Rangeley boats. So I said, 'It's time to bring this camp into the 20th century'—or rather, the early 20th century. You know, back in time." He fitted a 5-hp outboard on the transom and took his family for an inaugural trip down to Students Island for a picnic lunch.

Three years later, when Bontecou arrived at his camp for the season, he was greeted by Belanger. "We've got your boat!" Belanger said, beaming. During a boathouse renovation, the ownership of a single, worn Rangeley with an orange interior was held in question, until Belanger remembered being told about Bontecou's boatless oars. When initials matching Michael's father's were found inscribed on the deck, the identity was confirmed. "Some of the boats can sit a while," Belanger explained to Bontecou. "We always thought it was someone else's."

"The boat was in pretty rough shape," Bontecou said. A double-ender, it was actually purchased when Bontecou's great-grandfather first became a member and built the cabin, sometime between 1911 and 1913. After talking with his mother, Bontecou determined that the boat had last been used in 1954 or 1955, when she rowed at length across Mooselookmeguntic Lake while her husband fished. "She never got over that one," Bontecou said with a laugh.

Bontecou hired Belanger, who retired from the OAA in 2003 after 14 years as superintendent, to restore his double-ender. The builder's nameplate on Bontecou's Rangeley reads "A.S. Arnburg." The graceful sweep of

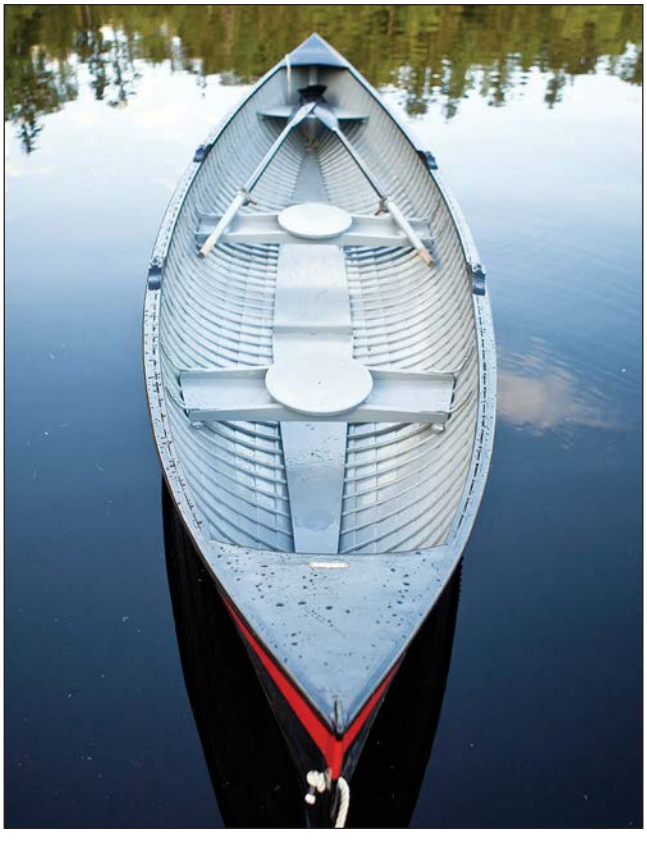
The Bontecou double-ender, shown in the lead photograph on page 38, is the latest in a long line of Rangeley boats that have been restored by Maurice Belanger, who worked as the Oquossoc Angling Association superintendent for many years.

the sheerline in Arthur Arnburg's boats (see sidebar) had long captivated Belanger. "That's the kind of boat I'd build for myself," he said.

Today, at 73, Belanger is one of a scarce few who specialize in restoring Rangeley boats. His introduction to the type came in the early 1960s, when he returned to Maine after serving in the U.S. Air Force. He took a job as a forester patrolling the remote and wild lakes of western Maine, and on Richardson Lake his workboat was a square-sterned Rangeley.

By necessity, Belanger learned basic boat-repair skills. Before long, mending cracked frames and replacing gunwales became second nature to him. He went on to manage a sporting camp, where he was introduced to double-ended Rangeleys, a type he found ideal for fishing the swift currents of Upper Dam Pool. In his free time, he learned from a guide friend how to completely reframe a Rangeley.

When he was 50, Belanger was hired as the OAA's superintendent. Finding a handful of Rangeleys in need of restoration, he turned an old guide's camp into a boatshop, where he worked on the boats during the winters. Planks, stems, decks, seats, backbones, and keels—eventually, he did it all, figuring things out as the need arose. "Every boat was a learning process," he said. "They still are."



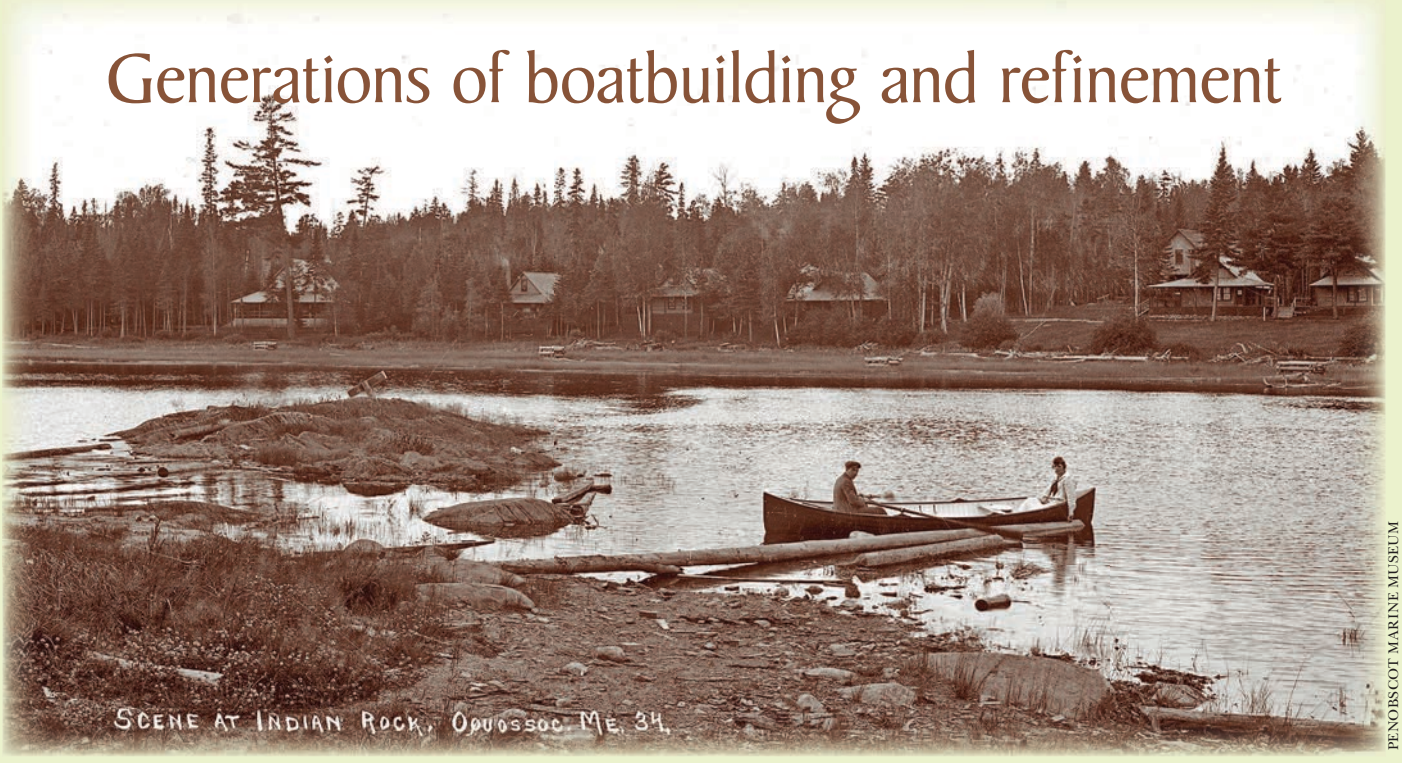
Most of the boats Belanger rebuilds have been owned through multiple generations, like Bontecou's. While working at OAA, he rebuilt two-thirds of the association's Rangeleys. Since then, the final third has passed through his home-based shop. His reputation has grown well beyond his OAA clientele, and, not surprisingly, he has a waiting list. What began as a way to earn additional income is now better described as a way of life. "I love the joy of doing the work, of seeing a project come together," he said. "And I love the joy of watching people's response."

Belanger, now semi-retired, worked on Bontecou's boat for six months. The original builder very likely had patterns for each individual piece, but in restoration Belanger has to build everything from scratch, taking patterns from the boat itself.

He completely reframed the boat, using steam-bent ½″-square ash with rounded edges. He removed the original white-oak keel and used a hydraulic jack to work a slight hog out of the hull's shape before replacing the keel timber with one made of ash. New ash stems went in forward and aft, along with new ash gunwales and inwales. He replaced planks where necessary using

Stool-like seats over recessed thwarts, set up so a guide could row while the client went about his fishing with his weight centered athwartships, are unique to Rangeley boats. Their lightweight lapstrake hulls, with numerous slender frames, made them easy to row and well suited to the lakes they were intended for.

Generations of boatbuilding and refinement



PENOBSCOT MARINE MUSEUM

Private sports fishing clubs like the Oquossoc Angling Association created a demand for boats. The OAA members commissioned the first Rangeley boats, which adapted the St. Lawrence skiff type and proved well suited to the open water of Maine's western lakes, where portages were rare.

Originally called the "Indian Rock boat" in honor of a ledge across from the Oquossoc Angling Association (OAA) campus where natives of the Wabanaki tribe once fished, the earliest Rangeleys were commissioned in 1869 by the association's members. The first were built by Baker Tufts and a Mr. Ball. Tufts, who went on to build the boats until the turn of the century, is believed to have adapted the design from an early example of a St. Lawrence skiff, which the builders are thought to have had on hand.

OAA members who had gone on fishing trips into the Adirondack Mountains of New York had encountered the widely renowned Adirondack guideboat (see WB No. 130). Clearly, early club members held the Adirondack boats in high esteem and were likely hoping to create a similar legacy for their adopted region of Maine. The sleek and light Adirondack guideboat was perfected for its portage-intensive home waters, but the Rangeley area had limited need for portaging. Instead, the Maine fishermen required a more rugged and durable boat that would still be fast and row easily. In the Thousand Islands of the St. Lawrence River, the club members had also encountered the St. Lawrence skiff (see WB Nos. 20–21), which was equally admired. As is best understood, a St. Lawrence boat out of Ogdensburg, New York, won out as the inspiration for the Oquossoc boats because the open and sometimes rough waters there were judged to be similar to those found by fishermen pursuing the highly prized brook trout of western Maine.

Although Tufts built the first Rangeleys, Luther Tibbetts was the first Rangeley boatbuilder recognized in the *Maine State Year-Book and Legislative Manual*, where his name appeared from 1872 to 1889. Tufts was listed several years later. Another early and respected builder was Hod Loomis. Charles Barrett and his brother

⅜″-thick Atlantic white cedar, with scarf joints landing on frames, then installed new seat risers, thwarts, and foredeck. He regularly puts many more hours into a project than are reflected in the final bill.

Most of the boats Belanger renovates have original planks that are 3′, 6′, or 8′ long, with staggered scarf joints. Belanger has found that this approach to planking makes repairs comparatively easy, since any crack that develops in a plank stops at a scarf joint, limiting how much of a strake must be replaced.

On Bontecou's boat, Belanger found himself having to replace planks directly below the foredeck. This common problem is caused by carrying a boat by its deck edge instead of by its gunwales, he said. In this case, he strengthened the foredeck by increasing its planking thickness from ¾″ to 1⅛″, shaped to blend in with the boat's aesthetics and backed by a 1¼″ deck-beam. Belanger begins each project by removing paint and completes his work with three coats of fresh paint, including primer, inside and out.

When Belanger finished the boat, Bontecou sent a letter thanking him for his work in reviving a family heirloom. "The letter was almost as good as the check," Belanger said.

***Above left*—Arthur Arnburg, who crafted the double-ender that Michael Bontecou now owns, started building boats in the early 1900s. *Above*—Charles Barrett developed a new type of oarlock, unique to Rangeley boats, so that a guide who needed to help his client land a fish could drop the oars without fear of losing them. They also allow feathering. The cast-iron oarlock works as a universal joint, with leather "buttons" keeping the oars in place.**

Thomas began building Rangeleys in 1888. An early guide and hotelier, Fred Barker, wrote in his book *Lake and Forest As I Have Known Them* (Lee and Shepard, Boston, 1903) that he purchased one of the first Indian Rock boats built by Tibbetts and Ball, and he called the boat one of the best investments he had ever made.

Arthur Arnburg, who built Michael Bontecou's double-ended boat early in the second decade of the 20th century, was among the second generation of Rangeley builders, who emerged in the early 1900s. One of his contemporaries was Fred Conant, who had worked for Loomis. They were followed some years later by Rufus Crosby, Harold Ferguson, Frank Barrett, S.A. Collins & Son (who took over Conant's business in 1935), Herbert Ellis, and others.

Over time, the "Barrett Rangeley" would become nearly synonymous with the type. Charles and Thomas Barrett were succeeded by Thomas's son, Frank, whose tenure as owner of the company lasted from 1928 to 1938. During that time, the outboard motor made its mark on the Rangeley design, resulting in the first "square-sterned" boats, formally known as the Number One transom Rangeley, which were given a narrow transom capable of supporting an outboard engine. The transom widened as outboard engines grew larger, resulting in the Number Two and Number Three transom Rangeleys.

After World War II, S.A. Collins & Son and Herbert Ellis continued on as the last of the regional builders, who followed the market demand for square-sterned boats. Descendants of S.A. Collins & Son were still working on Rangeleys during the late 20th century, as was Ellis. When Ellis died in 1997, an era came to a close. Ellis, who purchased the Barrett shop from Frank Barrett in 1938, was the last builder with direct links to the 19th century (see WB No. 39).

Despite being the brainchild of upper-class sportsmen, the Rangeley boat itself was largely used, maintained, and embraced by local guides and boatbuilders. Without this endorsement, it is unlikely that the Rangeley type would have made it beyond the confines of the OAA campus. These craftsmen adapted and improved the original design and fittings. The oarlocks on Michael Bontecou's boat, for example, are a Charles Barrett design. This Barrett brother was renowned for his design and construction savvy, ranging from steam launches to cupboards, while his brother, Thomas, had a gift for woodworking. Barrett's cast-iron oarlocks quickly became the standard, and they commonly appear on boats built by other shops, including Arnburg's. In this oarlock design, the oar is held by a round collar that is bolted to the oarlock horns. The oarlock works as a universal joint, allowing the oar to rotate for feathering yet holding the oar securely, with a leather stopper, which permitted a guide to quickly drop the oars so he could change focus from rowing to assisting his fisherman client. Herbert Ellis used the Barrett oarlocks throughout his career and held the design in high regard.

Arnburg came onto the Rangeley building scene around 1909, when Charles and Thomas Barrett were the last of the original builders still producing boats. Arnburg worked as a hotel clerk before turning his hand to boatbuilding, and it is believed that he designed his own boats. Local guides soon became Arnburg devotees, preferring the lean hulls he crafted with a handsome sheerline and greater flare than the Barrett boats. The Arnburg was also praised for its ease of rowing. When Harold M. Ferguson tried to start building boats in Rangeley, he found limited success until he purchased Arnburg's business in 1923. —*DM*

In 2010, I traveled with Tony Oppersdorff, a friend of both mine and Bontecou's, to the OAA to take part in the re-launching. Upon arrival, we quickly found ourselves helping Chris Taylor, the current OAA superintendent, to haul the restored Rangeley out of the boathouse. I got lost for a time among the dozens of Rangeley boats stored there. After a decade of paddling trips to western Maine, I had come to hold the Rangeley boat and the OAA in a saintly light.

Soon, we had hauled the boat out and loaded it onto a trailer. Michael, Tony, and I all stood around admiring the boat. Her black hull, candy-red sheerstrake, and light gray interior glistened in the afternoon light. I found myself gazing at the numerous slender frames—67 in all. The round seats, floorboards fitted with foot braces, and neatly resting oars were like an invitation to hop in and tally ho. Her depth of 15″ was relatively shallow, her beam of 4′1″ fairly narrow for her 17′ length. Whether viewed from ahead or astern, her lapstrake planking accentuated her shapely hull.

"It's a different boat," Michael said, smiling.

"Do you have any plans?" Tony queried, referring to the vellum-and-ink variety.

"I have plans to get it in the water," our host answered, chuckling.

As Taylor hauled the Rangeley down to the lake, I trotted alongside the four-wheeler snapping photos. Taylor backed the boat into the water, hopped onto the trailer frame, and gave the 150-lb boat a concerted shove. It glided off, settling alongside a half dozen of its brethren. The confluence of the Kennebago and Rangeley Rivers, reflecting pillow clouds and nearby mountains, mingled beneath the hull for the first time in half a century.

At a nearby float, Michael stepped aboard and took the aft rowing position. With a broad smile and a few quick strokes, he rowed into the cove. "It's been a long time since I rowed a boat," he called back. But he rowed with a straight back and even feathered his oars. Grinning the whole way, he rounded a point of land and headed toward his own dock.

The next day, we followed in a chase boat while Michael rowed out into Mooselookmeguntic Lake. The morning was calm, and he began to really put his back into his strokes. As I watched the graceful arc of the boat's sheer against a backdrop of cedar and spruce, I marveled that here we were within sight of the camps where the boat was born, heading out onto the lake she was built to roam. "The Rangeley matches need and environment," Tony said. "That's what makes it such a nice boat."

Michael rowed until exhausted. He let go of the oars with a whistle, and the blades rested buoyantly at the water's surface, her Rangeley-style oarlocks keeping them from slipping away.

As a canoeist, I found the boat very stable when I took a turn at the oars later that day. It rowed like an arrow. Its nearly vertical stem and narrow entry cleanly cut through the growing chop while maintaining a level ride. She came quickly up to speed and cruised along at a nice clip. However, turning proved a bit challenging due to her long, straight keel. The lapstrake construction provides strength, light weight, and flexibility, and her hull shape balances carrying capacity and stability with ease of rowing and speed. I liked the oarlocks, each of which has a collar bolted to the horns so that it acts as a universal joint (see sidebar, page 43), allowing feathering while keeping the oar in place. This helped me focus on my stroke, which in a Rangeley is slightly cross-handed, with one oar handle passing over the other.

The thwart rounds, dish-shaped pieces of pine forming a seat affixed atop each of the two thwarts, were intended to keep the rower and client amidships for balance. The recesses in the thwart on either side of the rounds served as a catchall for fishing gear. Like the oarlocks, these distinctive features are unique to the Rangeley boats. Often, a guide and builder worked together on these innovations to meet specific needs.

At one point, Tony and I took the boat out together,

To perpetuate his five-generation heritage, Michael Bontecue had his double-ender restored for use at Mooselookmeguntic Lake, where Rangeley boats and the camp life have been inseparably intertwined for more than a century.

with Tony at the oars. With two aboard, it took a bit longer to build momentum, but once the boat reached hull speed she was still well balanced and a touch less tender, by Tony's measure. Traditionally, when a guide traveled with a single client the after thwart was used for rowing and the forward thwart for fishing. "It's like a sports car for two," Tony said.

In the evening, with a blaze in the historic cabin's fireplace, Michael reflected on the day's row. "It was quite something to be out after all this time. The boat rowed very smartly," he said, "but I wouldn't want to have to row the length of Mooselookmeguntic. Those boys earned their pay," he said of the original guides.

Michael said he planned to use the double-ender for exercise and to explore the circuitous shoreline near his camp. Maybe he would even row up the Kennebago River and cast a line. During the early years of his membership, he said, the old guard at OAA honed to traditional fly-fishing, using bamboo rods, wearing lace-up leather waders, and dressing in tweed "plus-four" trousers. They were no less serious about the boat they fished from. "They put their own mark on it and changed it to fit the needs of this region. To me that's unusual, and it separates this place from anyplace else."

On our last morning, Michael flipped through the guestbook that dates back to the opening of his camp. He stopped at the page recording his great-grandfather's final visit in 1940. "You're left with a legacy that you have to take care of and hand down to the next generation," he said. "I feel like I've done my part to perpetuate that. My kids will come into a boat that has significance to the family and the region, and hopefully they'll appreciate that. I believe they will."

Donnie Mullen is a writer and photographer who lives in Hope, Maine, with his wife and daughter.

Updating the Classics

The Swansea pilot boat

by Reuel B. Parker

Pilot boats have long held a deep fascination for me. My first design of the type came in 1988. She was a 45′ modernized replica of the 1833 Isaac Webb–designed DREAM, an early yacht, itself based on the pilot schooner model. In the following years I designed the modernized 60′ Virginia pilot schooner LEOPARD (see "Pragmatic Beauty," WB No. 224), a 37′ cruising pilot schooner, a 70′ Baltimore clipper, and a 28′ Swansea pilot boat, which is the subject of this article.

In late 1997 I was living on board LEOPARD in Key West, Florida, and had a shop and office in the old Singleton fish-processing plant on the waterfront in the Key West Bight. Lucy Trindar, a close friend from England, wanted to build herself a small ocean-cruising yacht. She had been sailing with me as well as helping me build boats for a couple of years, and was a very competent sailor as well as boatbuilder. I showed her some preliminary drawings I had done for a "pocket cruiser" based on the small, early-19th-century Swansea pilot boats of Wales. She knew of the type and asked me to complete the design for her.

While nearly all British pilot boats were cutter rigged, the Swansea boats were schooners. The early examples were small, 21′ between perpendiculars, and based on the 18th-century shallop model—the open workboats often carried on ships. Construction was lapstrake ("clinker built," in English parlance) and the hulls were of moderate draft, as the old Swansea harbor was very shallow and dried out at low tide. Because the harbor faced the prevailing winds, it often became crowded with wind-bound shipping, and the Swansea pilot boats had to be capable of beating out to sea in order to place their pilots on board incoming ships seeking shelter. The little schooners had to be highly maneuverable and capable of coming alongside a rolling square-rigger in large seas, and then of dropping their sails so the pilot could climb aboard the ship, then raising their sails and pulling away—all without becoming fouled in the rigging of the ship. The schooner rig in these small open boats was quite weatherly and handy, and the sails could be dropped and raised again in a matter of seconds. Like many other pilot boats, the Swansea boats were frequently sailed home singlehanded.

The early models had full bows and broad transoms. Short gaffs were employed to allow for single halyards—instead of the more common peak and throat halyards—which simplified the rapid raising and lowering of the sails at sea. Masts were free-standing,

ILLUSTRATION ABOVE: AUTHOR'S COLLECTION

***Above*—A Swansea pilot boat prepares to meet an incoming bark. The mainsail is scandalized and the foresail luffing as the crew stands by to come alongside the ship. In order to get pilots aboard safely and quickly, these little schooners had to be nimble and weatherly.**

BENJAMIN MENDLOWITZ

GLANCE is built to Reuel Parker's design for a 28′ Swansea pilot boat–inspired cruiser. Despite her diminutive size she has safely carried her owner, Joe Kitchell, through a severe Caribbean storm that packed winds in excess of 60 knots.

and halyards were frequently led aft to serve as running backstays in high winds. The boats had retracting bowsprits to facilitate docking in tight quarters; jibs were set flying. When the boats were docked, their long main booms were also shifted inboard to save space.

Toward the mid-19th century, the Swansea pilot boats grew to about 30′ in length, and construction eventually changed to carvel planking. In 1859 the harbor at Swansea was enlarged, foreign shipping increased, and the pilot boats became even larger, decked over, deeper of draft with more deadrise, and sharper of line. But despite these alterations to their hulls, the boats retained the schooner rig. The overlapping foresails were often made of heavier canvas, as the schooners would perform beautifully in heavy weather "tacking downwind" under foresail alone. I confirmed the validity of this technique with my own pilot schooner LEOPARD, which had short gaffs and an overlapping foresail.

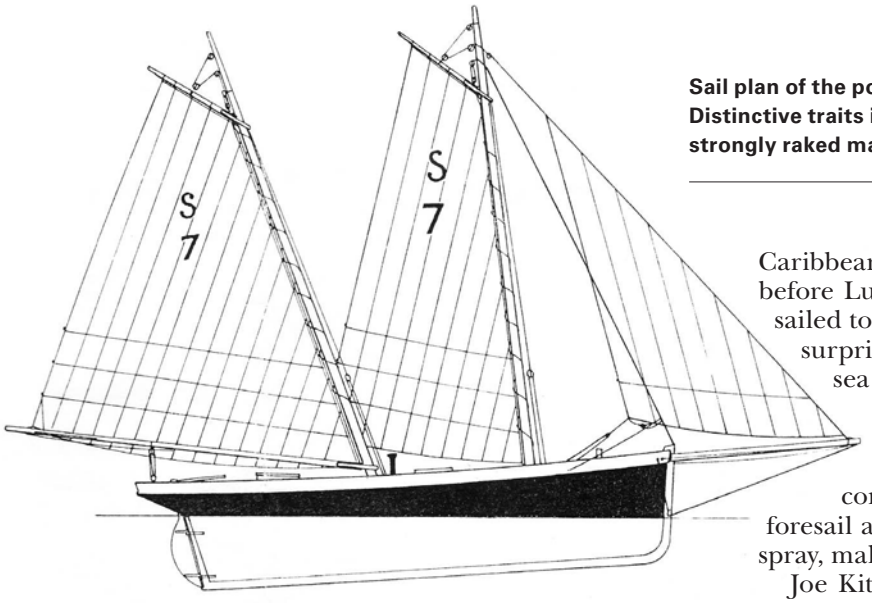
I designed my pocket-cruiser version of the Swansea boat to be 28′10½″ between perpendiculars, 25′3½″ on the waterline, with a 9′4″ beam and a 3′10″ draft. I gave her a sail area of 413 sq ft and a displacement of approximately 9,500 lbs. Construction was cold-molded plywood, using ¾″ marine-plywood planks scarfed full-length. The free-standing masts were laminated in two halves using air-dried Douglas-fir 3×6s. The flush decks were ½″ plywood laid over sawn Douglas-fir beams.

As word about the new design spread around Key West, two more friends came to express an interest in building their own. Before I knew it, we were building three boats in an assembly line. I hired a couple of professionals who had been working with me for years, and all three owners jumped into the process with us, at least part-time. We had hulls being built outside, masts and spars being made up in an old icehouse, and full-length planks being scarfed together anywhere we could find space.

We built the hulls upside down over bulkheads (no frames). Plywood floor timbers and partial bulkheads were added after the planked hulls were righted. The full-length ¾″ marine-plywood planks were fastened at the laps with stainless-steel decking screws and epoxy; protruding screw threads were cut off inside the hull. The hulls have planked deadwood with both inner and outer keel components. All the planks above the garboards were designed to be cut from 9½″-wide plank stock with one edge cut perfectly straight for the length of the hull. This greatly simplified construction. We planed our plank-lap bevels in place with a handheld power plane, including the interlocking rabbets (or "gains") at the hood ends.

After the assembly-line production of plank stock and bulkheads for all three boats, the second and third hulls were built in only a few weeks each. I made full-sized templates of bulkheads, floors, rudder, and all other common pieces. The outer stem and keel were laminated over the planked-up hull. Although only ¾″ thick, the hulls are incredibly strong, due to the glued and fastened laps in the planking, which act like 1½″-square full-length stringers 8″ or less apart.

The hull exteriors were covered with 4.2-oz Xynole-polyester fabric saturated with epoxy. Xynole is very stretchy and it laid up perfectly over the lapstrake



Sail plan of the post-1859 Swansea pilot schooner model. Distinctive traits include the flat, downswept sheer and diverging, strongly raked masts.

AUTHOR'S COLLECTION, SOURCE UNKNOWN

planking, tucking snugly against the finger fillets at each plank lap.

The interiors of the little schooners are minimalist but comfortable. Headroom is only 4′6″ under the flush decks, but there's standing headroom under the booby hatches. We used clear Lexan (polycarbonate sheet) in the curved fronts of the hatches for forward visibility from below deck. Each boat has her own distinctive interior, according to the owner's taste and pocketbook, and indeed, none came out exactly like the plan shown here. However, the saloon tables were all fitted with drop-leaves to accommodate four persons, and someone nicknamed the large double berths "playpens."

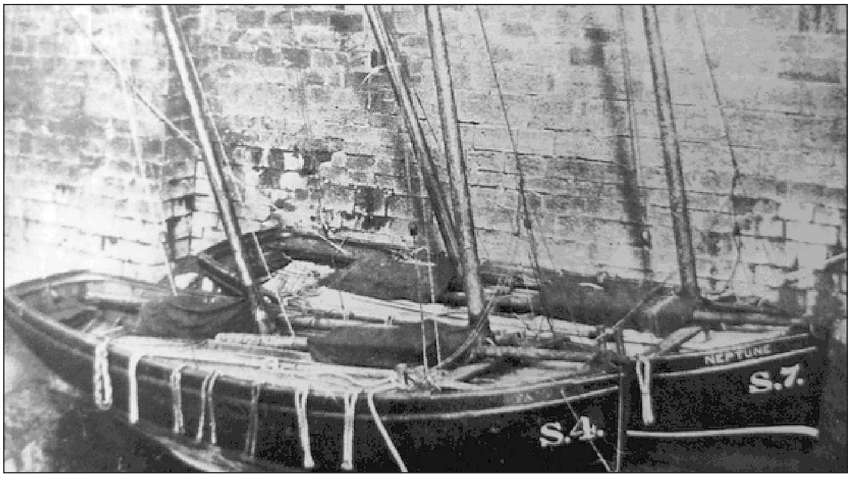
All hatches as well as the small cockpit well were located on the centerline, and each hull contained three watertight bulkheads for safety—so that even if the cabin is completely flooded, the air chambers in the bow and stern will keep the boat afloat. The hulls are extremely buoyant with ballast carried as scrap lead cast in polyester resin and covered with plywood.

Spars, deck hardware, and rigging were very traditional and simple, having no winches or windlasses. Sails were made from Dacron, and all running rigging was of ½″ Dacron three-strand rope for ease of splicing and handling—braided line kinks and jams in blocks. Dock lines and anchor rodes were ½″ nylon three-strand spliced to 5⁄16″ chain. The boats were painted with linear polyurethane, but all the spars were varnished.

All three schooners were built and launched in 1998. Their names are GLANCE, FRANK, and SYLVIA. GLANCE was sailed in the Caribbean to Honduras and back before sailing to Maine; FRANK was sailed in the Caribbean down to Jamaica and the Cayman Islands before Lucy had her shipped to England; SYLVIA was sailed to Maine and back. The little schooners proved surprisingly fast, weatherly, and very comfortable at sea despite their small size. Lucy's FRANK would occasionally miss a tack due to the drag of her propeller; but the others, not having inboard engines, were reasonably fast to come about, and could beat to windward under foresail alone. Their lapstrake planking knocks down spray, making the boats unusually dry.

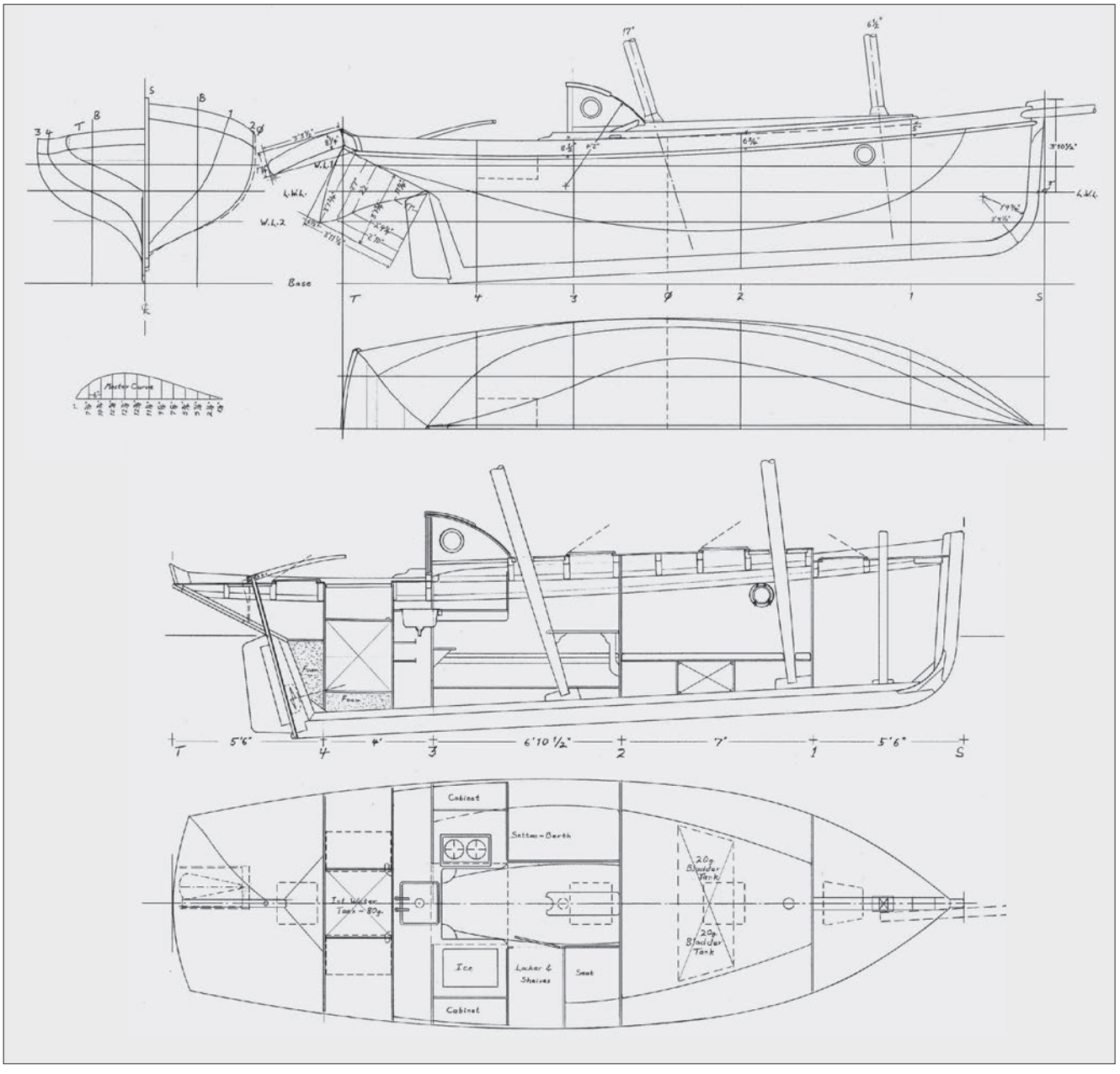
Joe Kitchell, the owner of GLANCE, was caught in a severe storm in the Caribbean while returning from Honduras to Key West. The following (published on the WoodenBoat Forum) is his description of the sail tactics he employed during the worst of it:

> I had both main and fore double-reefed with a reefed jib (it had one big reef) in about 35–40 knots downwind when the first big squall hit. It was kind of wild. It was night by then. The air turned green and I was just slammed by a wall of wind. The boat laid over pretty far and started to round up. I scandalized the main and fore, and then realized I'd probably lose the jib if I dumped it. My destination was downwind anyway, so I just finished dropping the other sails and securing them while the boat got back on her way. I did sheet the jib in pretty far so it wouldn't catch a lot of wind. That seemed to take some stress off the boat. The next night I was getting pretty tired, but found out I could sleep for about 10–15 minutes at a time by sitting inside the cockpit with the tiller on my shoulder. What would happen is that when the boat started falling off too far (almost dead downwind), it would slow just enough for the wave behind me to push the rudder hard enough to knock the tiller into my head, which would wake me up before jibing. I'd get back on course and do it all over again. The wind lightened up the next morning a little. Just enough for me to



AUTHOR'S COLLECTION

These early Swansea pilot boats rafted up against a harbor wall have their bowsprits and booms unshipped to save space.



REUEL B. PARKER

These are the plans for Parker's 28' Swansea Pilot Schooner "pocket-cruiser" shown on page 47. The drawings show an outboard well, but this was ultimately not built and instead two of the schooners built to date had transom brackets, while the third had an inboard two-cylinder diesel.

raise a double-reefed fore, blanketing the reefed jib, and allowing me to dump the jib and actually [save] it. The fore was necessary, as I had to turn up a channel to enter the Dry Tortugas anchorage. I short-tacked up the protected channel with the help of my 8-hp Johnson outboard, whose prop was occasionally in the water, and sailed into the anchorage with it still blowing over 60 knots, according to the park rangers. She [GLANCE] kept both me and her alive and safe. What more can you ask for?

As for the original Swansea pilot boats, the 1890s saw their decline, and in 1898 the new steam cutter arrived. Six years later, the last sailing pilots, the GRENFELL (S9) and the BENSON (S4), were sold out of the service.

Reuel Parker, profiled in WB No. 224, is a writer, designer, and builder of boats. He divides his time between Florida and Maine. This is the first of six articles on classic workboats he's adapted and updated for pleasure sailing. Plans for the Pilot Schooner 28, and others, are available from Parker Marine Enterprises, www.parker-marine.com.

Further Reading

The Sailing Pilots of the Bristol Channel, by Peter J. Stuckey.

Pilot Schooners of North America and Great Britain, by Tom Cunliffe.

DEBRA COLVIN

Suitability for Purpose

John Welsford and the art and science of boat design

by Tom Pamperin

There's a moment in Furled Sails podcast No. 114 (see sidebar) where New Zealand designer John Welsford describes his first attempts at building boats. "I was using bits of corrugated roofing iron to build myself canoes, scraping tar off the side of the road to caulk the seams," he explains, "nicking nails and such out of Dad's little bins in the workshop to nail it all up, and bits of firewood for the wood. If my mother had known what I was up to she'd have been down there very quickly, terrified that I was about to drown." He pauses briefly. "But I could swim pretty good."

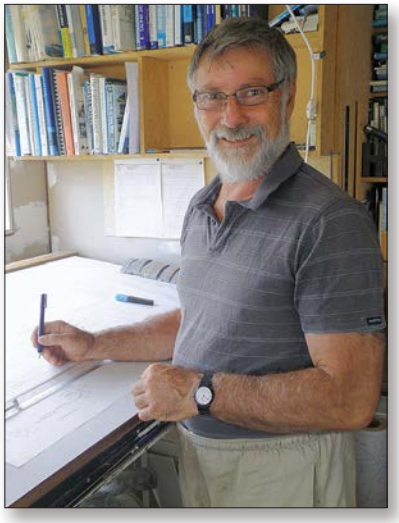
These days Welsford's customers don't do much swimming. With 30 years of design work behind him, he's come a long way from those early canoes. His continued successes have made him a highly respected designer, an elder statesman of sorts. That's especially true among amateur builders looking for rugged and practical cruising boats that can be built in a garage or backyard. Although Welsford has designed several powerboats, at least one multihull, a 21′4″ Mini-Transat racer that carries over 2,200 sq ft of sail and once managed a 24-hour run of 246 nautical miles, and even a barge for hauling trash ("One was enough," he says), serious cruising boats for home builders are still the heart of his design catalog. Go to a small-boat event anywhere in the world, and you're likely to find at least one Welsford boat.

"Very much self-taught," Welsford says of his evolution as a designer, a trait he sees as a distinct advantage. "Particularly in small boats, formal training seems to stifle creativity to some degree. It will often teach people what *can't* be done rather than what *can* be done." Almost all of the really great designers are self-taught as well, Welsford argues, citing Phil Bolger, Iain Oughtred, and Paul Fisher as examples.

Even without formal training, it's been a rigorous curriculum. In place of a diploma, Welsford possesses a wealth of knowledge gained from long experience

***Above*—John Welsford designed Scamp, 11′11″ LOA, as a project for Josh Colvin of *Small Craft Advisor.* Hull No. 1 of the design was a popular entrant in the Port Townsend Wooden Boat Festival in Washington State in 2011.**

TOM PAMPERIN



SARINA CLARK

***Left*—From his New Zealand studio, Welsford has found a following of do-it-yourself builders and small-craft admirers. *Above*—Among Welsford's many popular small-craft designs are the 21′ LOA Penguin, at left; 11′11″ Scamp, at center; and a 14′9″ Navigator, at right.**

working with wood products, glues, and sawmill machinery. "Run it, install it, teach it," he says. "I'm probably the only designer around with that experience." Instead of relying on typical designers' resources for advice on scantlings and construction methods, Welsford runs his own tests to see where those sources have gone wrong, like an especially astute navigator using a home-made sextant to discover an error in the sight reduction tables.

"At some stage, somebody has to go back to basics and see what's strong enough," Welsford says. In other words, when John Welsford tells you that something is strong enough, or draws a plan a certain way, he's not quoting a book or following a rule written by someone else. He's built it himself, using a variety of methods, glues, and materials, and tested each attempt to failure with some pretty sophisticated equipment.

Welsford will sometimes take hull models to a local overflow dam, where he can compare the drag created on the hulls at different speed-to-length ratios by anchoring the models in different spots. Nothing fancy—the hull model, a fishing rod rigged with a tiny spring balance to hold the model in place in the current, and a video camera to film the results are all he needs to find a new direction to explore.

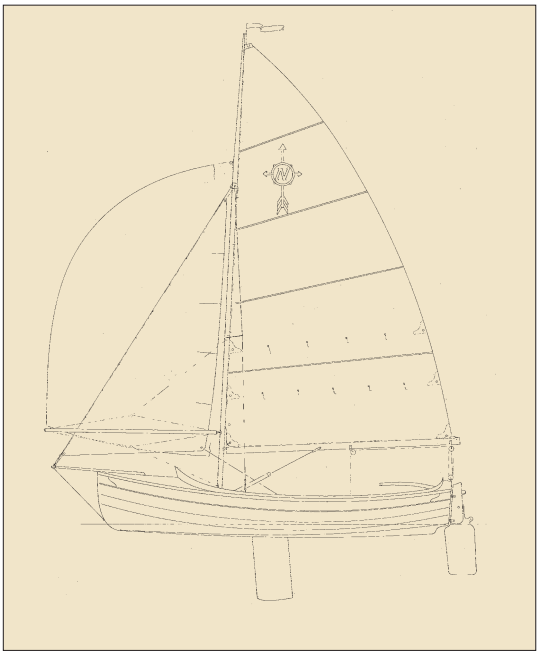
Ironically, Welsford's self-directed experimentation eventually took him into formal education through teaching marine, automotive, and aviation transport design as a Senior Visiting Tutor at Auckland's Massey University. He describes teaching as the best learning experience he's ever had. "It forced me to take a very close look at my methodology," he says. "Some of these kids ask very awkward questions. And you're expected to be able to come up with an answer."

Welsford hasn't stopped looking for answers since he began designing in 1980, searching for the often elusive ideal of suitability for purpose, which is how he defines performance. Judging by the growing popularity of his designs, and by the obvious enjoyment he derives from design work, it's been time well spent.

At my request, Welsford mentions a few designs that, in his opinion, deserve particular attention. "Probably Navigator was the one that really kicked things off," he says. "It's against all the mainstream rules," a 14′9″ glued-lapstrake dinghy with a seemingly old-fashioned lug-yawl rig that's much faster than it looks. The original client decided against a sloop-rigged club racer, and the Navigator has found its place as a beach cruiser, with more than 700 sets of plans sold. It is built upright on its flat bottom, with plank shapes defined by permanent stringers, an amateur-friendly method Welsford uses for many of his boats. The stringers also make the boat immensely strong—over-engineered for sailing, but just right for survival on a trailer at highway speeds.

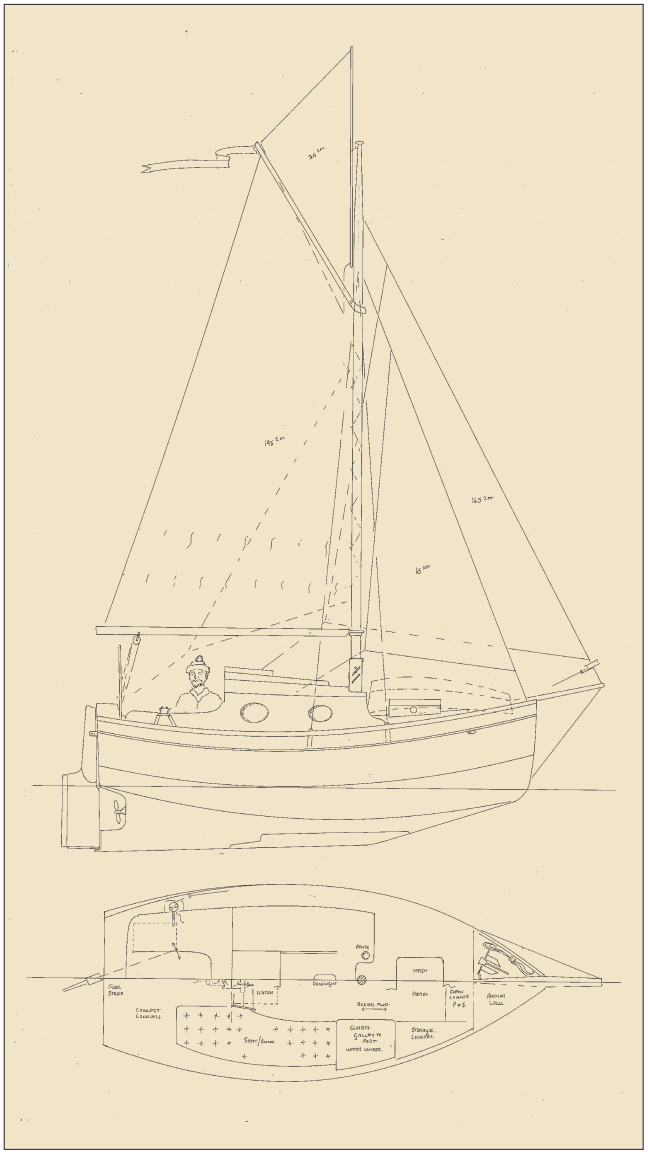
Another design Welsford singles out is Sundowner, a stout little cold-molded bluewater cruiser with a distinct Welsfordian charm. "I think that Sundowner, although it's very early in its marketing life, is a very special boat," Welsford says. "That was a pretty rigorous exercise in design." Part of the rigor involved preserving the boat's enormous carrying capacity: 100 days' worth of stores for two people, at 10 lbs per person each day. "It's the smallest boat you could really do [a circumnavigation] in," Welsford says.

KEVIN HAHN



JOHN WELSFORD

***Above*—Joel Bergen of Washington State is among many who have built their own 14′9″ Navigators themselves. It was his first-ever boatbuilding project. *Top right*—The Navigator started off as a racing trainer with a powerful sloop rig, but most builders have chosen the yawl rig that Bergen's boat carries. *Right*—Sundowner, at 21′4″, was conceived for minimalist ocean passages, and potentially even for global circumnavigation.**



JOHN WELSFORD

Commissioned by Charlie Whipple for a singlehanded circumnavigation, the original Sundowner was lost when it ran aground on New Zealand's Great Barrier Island. Whipple has no complaints about the design, though. "I found my Sundowner to be a very seakindly craft," he e-mails me. "She tracked like a car on rails. I could set the sails, tie off the rudder using a double span of surgeon's rubber tubing…and RESOLUTION would sail herself for hours—a day and a half at one time."

I get the chance to see another Welsford design that's getting a lot of attention at the Port Townsend Wooden Boat Festival in September 2011, where Welsford is scheduled to lecture on boat design. The design is called Scamp, a pugnacious little pram-bowed cruiser he drew for *Small Craft Advisor*'s editor Josh Colvin. The design's name is an acronym for "*Small Craft Advisor* Magazine Project."

Scamp was catching attention from would-be small-boat cruisers even before the ink on its plans was dry, and at Port Townsend, Scamp No. 1 is constantly surrounded by visitors eager to see it, touch it, sail it, build it for themselves. It's a good example of Welsford's and Colvin's success at identifying a market and designing a boat to fit its demands. "We were looking for the smallest of microcruisers—a seaworthy boat that could accommodate the solo cruiser," Colvin says.

Adapted and built by Kees Prins and the staff of the Northwest Maritime Center, the prototype was launched in November 2010. The following spring, Josh Colvin posted a YouTube video of the sea trials conducted by

KEVIN HAHN

JOHN WELSFORD

***Above*—At the 2011 Sail Oklahoma! gathering at Lake Eufala, Welsford himself joined Mike Monies aboard his home-built Scamp, with which Monies also completed the Everglades Challenge that year. *Right*—A 100-sq-ft standing-lug sail makes Scamp easy to handle and easy to reef.**

small-boat adventurer Howard Rice. In the video, Rice purposely capsizes the boat (which doesn't go over easily) while sailing the cold waters of Puget Sound on a blustery day. Fifteen seconds after he hits the water, Rice has Scamp upright again. Forty-one seconds after going over, he's back aboard. Fifty-four seconds after it all began, Rice has the sheet and tiller in hand and starts sailing away. The world had discovered its seaworthy microcruiser.

Colvin himself is more than happy with the results. "The boat has exceeded our expectations in nearly every way," he says. Everyone else's, too. Colvin sold the plans for Scamp No. 70 at the Port Townsend festival. Just five weeks later, he's sold more than 80 sets of plans or CNC kits, with customers in North America, Europe, Australia, and Japan. Oddly enough, given the boat's lack of amenities and the usual demographics of sailing—the Festival grounds are awash with gray-bearded men in baseball caps and flannel shirts—Scamp seems especially popular with women. Half a dozen festival visitors, including Welsford himself, make a point of telling me that their wives or girlfriends have asked for a Scamp of their own after seeing or sailing in the prototype.

"It's a really good example of what a good marine designer does," Welsford says, explaining Scamp to the standing-room-only audience at his boat-design lecture. "When we think of a very small cruising yacht, the one thing it can't be is conventional." Scamp avoids convention completely with its pram bow, bilge keels, water ballast, offset centerboard, extreme beam-to-length ratio, and odd "veranda" (a small roofed space that serves as both a hard dodger and a dry stowage area); perhaps its success shouldn't be such a surprise.

Later, in fact, Welsford tells me that Scamp may be the best boat he's designed. When I ask why, he stops to think. "Suitability for purpose," he says. "And the purpose is much wider than how it sails."

What is that wider purpose? Welsford is at heart a romantic, I realize—an engineer with a poet's soul, a draftsman disguising escape machines in rolling bevels and beautiful curves. His design catalog is filled with tricksters and runaways, travelers and escape artists: Scamp. Navigator. Rogue. Truant. Awol. Houdini. Pathfinder. Pilgrim. Swaggie. Walkabout. Sundowner. Suitability for purpose indeed.

JOHN WELSFORD

TENACIOUS, shown here at the 2011 Port Townsend Wooden Boat Festival, is a commodious Penguin design that Peter Van Sickle built in Coeur d'Alene, Idaho, for his own use. The boat, 21' LOA with a beam of 8' and 223 sq ft of sail area, has comfortable cruising in mind, with four berths and an enclosed head.

John Welsford at Sail Oklahoma!

Take an 11″×14″ map of the United States. Put the tip of your left pinky on Port Townsend, your right pinky on Bar Harbor, and your thumbs will meet in Eufala, Oklahoma. Ask someone in Eufala to define "lapstrake," and you're likely to get a puzzled stare. But in just two years, Lake Eufala's annual Sail Oklahoma!, founded and hosted by Jackie and Mike Monies, has made a big name for itself in the loosely organized circuit of amateur small-boat events known as messabouts.

More than 50 home-built wooden boats are pulled up the beach at Lake Eufala for the weekend, and one in eight of these boats is a Welsford design. That's a slightly better showing than perennial messabout favorite designers Jim Michalak and Phil Bolger, the runners-up. There's a Pathfinder, a Houdini, a couple of Sherpa dinghies, and Scamp No. 4, a veteran of the Everglades Challenge. There's even a Welsford version of the popular sandbox-with-rocker Puddle Duck Racer, which Welsford sails to a third place finish in Saturday's 2011 Puddle Duck World Championships.

I ask Duckworks founder Chuck Leinweber, who sells Welsford's plans in the United States, why Welsford has become so popular with the messabout crowd.

"I have not seen any other designers who use a simple dory bottom with a lapstrake or at least pretty topsides," Leinweber tells me. "His boats are pretty where that counts—above the waterline—and simple where that counts—below the waterline." He also thinks Welsford's simple construction methods play a big role, describing the glued-lap-over-stringers approach as foolproof. "Any idiot can make it work," Leinweber says. "I can't say that for other designers of glued-ply-lap boats."

In short, messabouters are Welsford's people. He enjoys designing for them, and takes real pleasure in seeing the boats they build, the dreams that even a not-so-perfectly-finished boat can fulfill. Again and again during his U.S. trip, Welsford agrees to sail with proud builders eager to show off their boats to the designer. He's not only gracious about accepting, but genuinely enjoys himself in the process. It's like having Johnny Unitas play catch with you, and show you a few tricks about how to make better passes. This, too, is a big part of Welsford's popularity.

But even Welsford's own preferences for economy and simplicity in boatbuilding fit well in the mess-about world, where you'll find more latex housepaint than gleaming varnish, and more poly tarp than Dacron. It's not that Welsford doesn't appreciate fine, expensive materials, it's just that his eye is always on suitability for purpose.

"People ask me what kind of varnish I recommend," Welsford says. "I tell them, 'White paint.'" —*TP*

TOM PAMPERIN

Like many small-craft rallies, Sail Oklahoma! draws a wide range of boats. Participating boats designed by Welsford—who attended in 2011—are the red-hulled Scamp and the Kiwi Puddle Duck Racer in the foreground.

At Port Townsend, in fact, the only thing more popular than the SCAMP prototype might be Welsford himself. "I'm not used to being this famous," he tells me when we manage to duck away for an interview. "As my wife says at home, I'm just the cook." I know what he means; I feel like I've been given a backstage pass to a sold-out concert.

Others have noticed Welsford's status, too. "I knew he was enjoying increasing popularity in the U.S. as the result of his designs, but quite frankly hadn't realized the extent of that popularity," Peter Leenhouts says. Leenhouts, who serves on the board of directors for the Northwest School of Wooden Boat Building, hosted Welsford during his stay in Port Townsend and had a firsthand look at the reception he earned from the crowds. "He was fairly mobbed in Port Townsend, and couldn't walk five steps without someone stopping to talk to him."

After watching Welsford navigate his way through the Port Townsend crowds for three long days, I can easily understand his popularity: not only is he a gifted designer, but he genuinely likes people, even when surrounded by a constant stream of admirers. He listens more than he talks, and when he does speak, his New Zealand accent lends him a cheerfully exotic charm—edge becomes *eedge*, head becomes *heed*, and a bad pun or a good joke may surface at any moment. For many, I suspect, meeting Welsford in Port Townsend, or simply hearing him lecture, will be remembered as the best part of a weekend already filled with good parts.

"Boat design is about numbers through and through," Welsford tells me at one point. Though he hasn't always developed his designs that way, it's the conclusion he's reached after years of study and experience. There are plenty of numbers to watch, I realize, listening to Welsford's quick explanation of the relationships between prismatic coefficients, speed-to-length ratios, wetted-surface-to-displacement ratios, sail-area-to-displacement ratios, and more. Once Welsford knows what his client wants, he juggles these numbers with meticulous care, searching for a

combination that will offer the performance he's looking for. "They manage the drawing," Welsford says. "All I have to do is translate those numbers into the form." The result is a boat that he can reasonably expect to do what he wants it to do before he even draws it.

The thoroughness of the process Welsford goes through to manipulate the numbers for each new design is startling, though. He controls for every possible variable of hull shape and environmental influence: Height, speed, steepness, and spacing of the waves a design will typically encounter. The speed and direction of the prevailing winds. Currents. Waterflow angles. Flare. Rocker. The fore-and-aft placement of maximum waterline beam. The period of the pendulum effect created by the motion of keel and mast. The client's limitations and capabilities. Ergonomics and comfort. It's a complex and interdependent web; pull one strand, and everything changes.

There's no textbook for this kind of work, which doesn't seem to bother Welsford. "I get so bored doing construction drawings," he says. "That's donkey work. The creative stuff has been done." It's the only negative opinion I hear him express.

John Welsford Online

www.jwboatdesigns.co.nz
Welsford's own extensive web site includes a wealth of plans, photos, boatbuilding tips, blog entries, stories, and relevant links.

www.groups.yahoo.com/group/jwbuilders
An active discussion group for people building Welsford designs. If the designer himself doesn't answer your questions—and he often does—someone else will. An invaluable resource for amateur builders.

www.duckworksmagazine.com
Duckworks has been selling Welsford's plans in the United States since 2003, and offers an archive of nearly 50 articles on boatbuilding and design from his column "From the Drawing Board."

www.breakawaybooks.com
Welsford's popular how-to book, *Backyard Boatbuilder*, is out of print, but there's a second edition scheduled for publication by Breakaway Books in the spring of 2012. Judging by the $159.99 price tag Amazon.com has put on the first edition, it'll be well received.

www.furledsails.com
This site, which is billed as "the world's first sailing podcast," carries Noel and Christy Davis's two-part interview with Welsford, showcasing both his extensive knowledge of design and his infectious humor. It's the next-best thing to meeting the designer in person; look for links to podcast No. 114 and No. 115.

www.smallcraftadvisor.com
The web site for *Small Craft Advisor,* which sells plans and CNC kits for Scamp.

forum.woodenboat.com
Participants in *WoodenBoat* magazine's forum often bring up Welsford designs, and Welsford himself posts regularly.

Welsford's ability to manage the complex and shifting relationships that tie all the numbers together in a coherent and capable design is impressive, but the real trick may be knowing which numbers to look for in the first place. That's where the design brief comes into play. To develop the brief, Welsford often has to understand his customers' goals better than they do. That means digging deeply into their dreams, figuring out what they want, what their plans for the boat are, what they need versus what they think they need—in short, translating his clients' often vague notions of sparkly water and beautiful wood shavings into numbers that will define hull shapes and rigging plans. It's no easy task.

During his design lecture, Welsford further explains the importance of the brief. "That document," Welsford says, "takes the customer's dream—*I want a schooner*—and brings it closer to reality—*I have a third-floor apartment and no money*."

The audience laughs. But Welsford took the seemingly absurd request for an apartment-sized ship seriously. He realized it wasn't a schooner the client in question needed, but a connection to the romance of the fleet. Welsford designed him a small pulling boat, and soon the man became a regular sight in the harbor, rowing out to the larger sailing vessels anchored there, the schooners he'd been dreaming of. "Need anything, Captain?" he'd call. Soon enough they did, and he began serving as an unofficial shore boat service: collecting mail, delivering groceries, picking up laundry, rowing people ashore, finding a foothold in his dream.

And when the schooners headed for the tropics at the turn of the season, Welsford's client was aboard one of them, with his small boat stowed carefully on deck—at least until they arrived at the next harbor. Then it was, "Need anything, Captain?" all over again. Despite his third-floor apartment and lack of funds, he was part of the fleet.

"He had achieved his dream," Welsford says. The audience applauds.

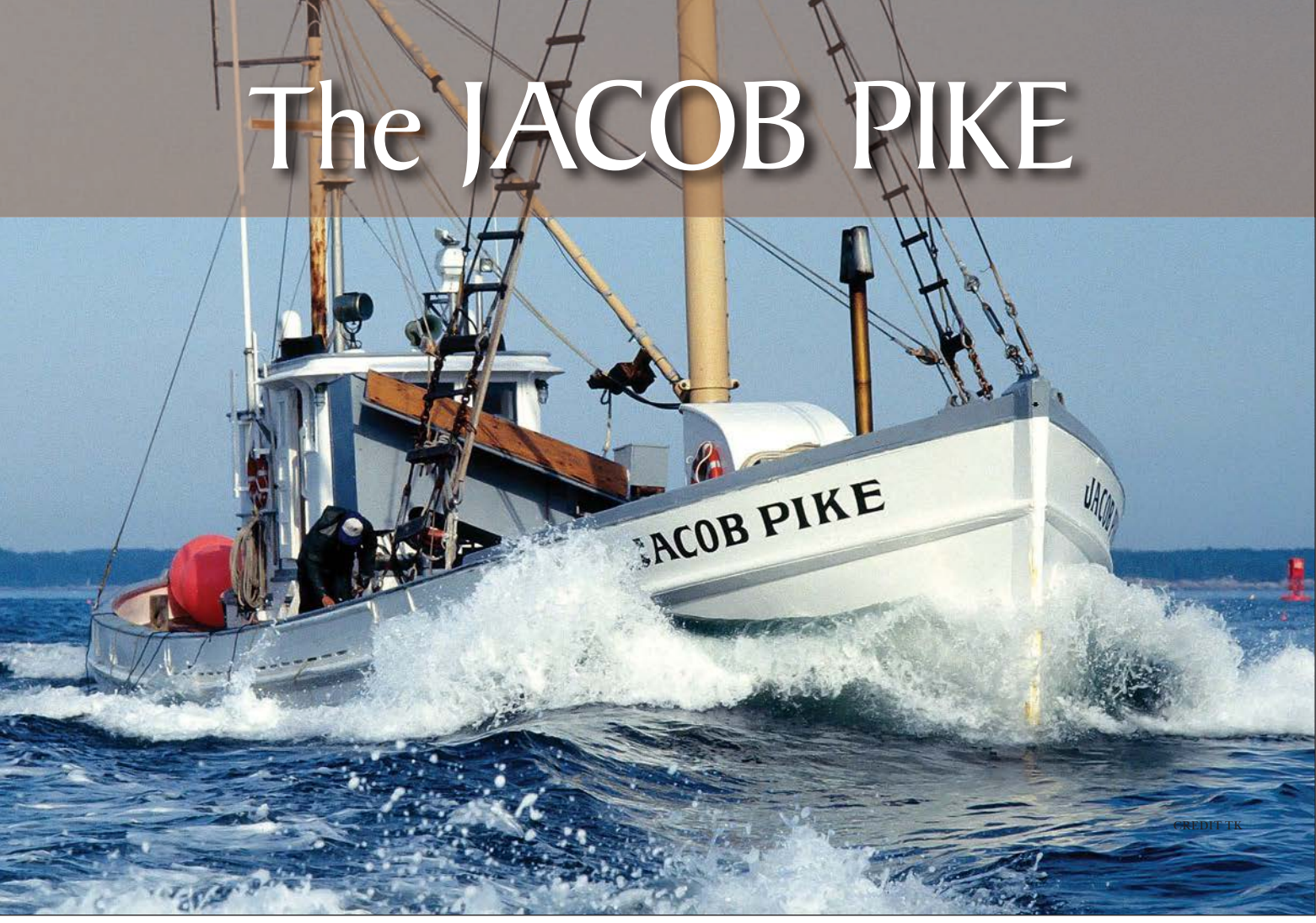
"I like designing for amateurs," Welsford tells me later. "In part because of the difference it can make in their lives." He sees boatbuilding as an example of something that's all too rare in today's digital world, where work means "fighting ghosts," staring at a computer screen instead of creating something you can hold in your hands. "Building boats is good for the soul," Welsford says.

It's obvious that Welsford derives great satisfaction from meeting someone else's needs as perfectly as he can, but I became curious about what he would design for himself. What would appear on the drawing board if Welsford didn't have a client to consider? Is there anything you still want to do in your design career, I ask him, something you haven't had a chance to design yet?

"Yeah," he says, as if he's surprised I don't already know the answer. "More boats."

Tom Pamperin is a freelance writer who lives in Idaho. He spends his summers cruising small boats.

The JACOB PIKE



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The sardine carrier JACOB PIKE, sometime in the 1980s, returns to her then-home port of Rockland, Maine, with a full load of herring. After a period of semi-retirement, the vessel has recently returned to work carrying lobsters.

BENJAMIN MENDLOWITZ

by Maynard Bray

It's been more than 60 years since the 83′ sardine carrier JACOB PIKE first steamed from Thomaston, Maine, up to Holmes Packing Company's factory in nearby Rockland. Upon her arrival, she took her berth adjacent to her near-sister MARY ANNE, built the previous year. Having grown up in Rockland, I can well remember how lovely this pair looked—with fresh white topsides, gray trim, copper-red bottoms, and wooden masts painted orange-buff with black mastheads. In spite of the polluted air and water that back then surrounded them, they always appeared immaculate.

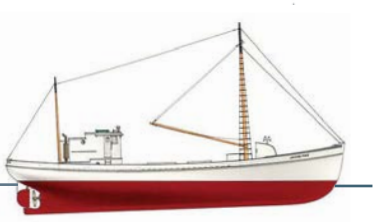
In 1949, mostly due to fish factories like Holmes, the saying went "Camden by the Sea; Rockland by the Smell." Even though fish processing at times stunk up the air we breathed, and the dumped-overboard fish waste scummed up our boats' waterlines, we simply accepted pollution. It seemed no worse than the nearby cement plant's dust that made keeping a car clean impossible, or the coal smoke from the trains that turned clothes gray while they hung out to dry.

Life is safer and cleaner now in Rockland; the city has eclipsed Camden, in fact, as a destination for travelers. What used to be Holmes Packing Company is now an upscale marina with a water-view restaurant. Art galleries and boutiques line Main Street, the seawater is clean, and the fish smell is long past. But a few of us loved growing up on this industrial waterfront, and hanging out among the variety of wooden draggers and carriers, tugs and tankers, lobsterboats and yachts that were always coming and going. Given the choice between being a kid in the 1950s or a kid today, I'd take the riskier and grubbier and far-less-restrictive earlier time.

Draggers landed redfish at O'Hara's and General Seafoods, and sardine carriers delivered herring (called sardines when small) to the Holmes plant and to the North Lubec Canning Co.—Rockland's second sardine factory. The boats were endlessly interesting to my pal Don Merchant and me. Draggers were generally painted dark green with black waists, or all black; sardine carriers were invariably all white. Laid up during the winter months, the carriers would show up in the spring freshly painted, almost like yachts but without the varnish. The JACOB PIKE ranked as one of our favorites.

Evolving from sailing craft called carryaway boats, sardine carriers have always been slippery rather than bulky. And because the trips they made were relatively short, and the water around the weirs and stop seines

One of Maine's last sardine carriers returns to work



where they loaded herring was shallow, sardine carriers had to get their capacity from length, not depth. Over a hundred power-driven carriers were purpose-built or converted from sail during the half-century they and their fishery flourished—from about 1910 to 1960. Unlike the wooden draggers and lobsterboats that were most often owned by the men who fished them, sardine carriers were factory-owned (see WB Nos. 158 and 159 for more on sardine carriers). Their usefulness came to an end when the inshore fishery dried up and big steel seiners and trawlers that could carry their own fish began intercepting the schools of herring offshore. Regulations as well as lower catches gradually diminished the profitability of canning factories, and the last one, Stinson Canning Co. of Prospect Harbor, shut its doors in 2010. The carriers serving the factories underwent a parallel attrition, most of them eventually meeting their demise. Only a handful survive today, the JACOB PIKE among them.

The JACOB PIKE was the last of six sardine carriers, all built to the same half model, that were launched from the Newbert & Wallace yard in Thomaston during the heyday of the mid-coast's catching and canning frenzy following World War II. Herring then were plentiful and demand remained high from wartime eating habits, as did price. The shipyards had plenty of wood on hand left over from government contracts, and returning servicemen with entrepreneurial aspirations were eager for work. This Thomaston yard had specialized in wooden-hulled, inshore draggers; but for a couple of years beginning in late 1947, Roy Wallace's lovely sardine carriers came out, one right after the other, their launchings only three months apart.

The carriers were set up with alternating schedules on two launching ways: one inside the big old, slant-roofed lime shed that was morphed into the Newbert & Wallace shop, and another outdoors along that building's east side. The 73′ LOU ANN (for Bath Canning Co.) was first of the new carriers, launched from the outside ways in the fall of 1947. She was followed by the 73′ RUTH-MARY on March 27 (for Belfast Packing Co.). The MARY ANNE, lengthened by 10′, hit the water on June 17 (for Holmes Packing Co.), the 83′ PAULINE in September (for North Lubec Canning Co.), and the 73′ GLENN-GEARY on December 13 (for Belfast Packing Co.). In early 1949 came the JACOB PIKE (as the second boat for Holmes and the last of her type for N&W). With six big carriers in only 18 months, those were boom times!

PROFILE DRAWING ABOVE: KATHY BRAY

Owner Moses Pike was justifiably proud of his new carriers JACOB PIKE and MARY ANNE when they were new in the late 1940s, and he hired photographer Sid Cullen to shoot them as they steamed in from the Rockland breakwater.

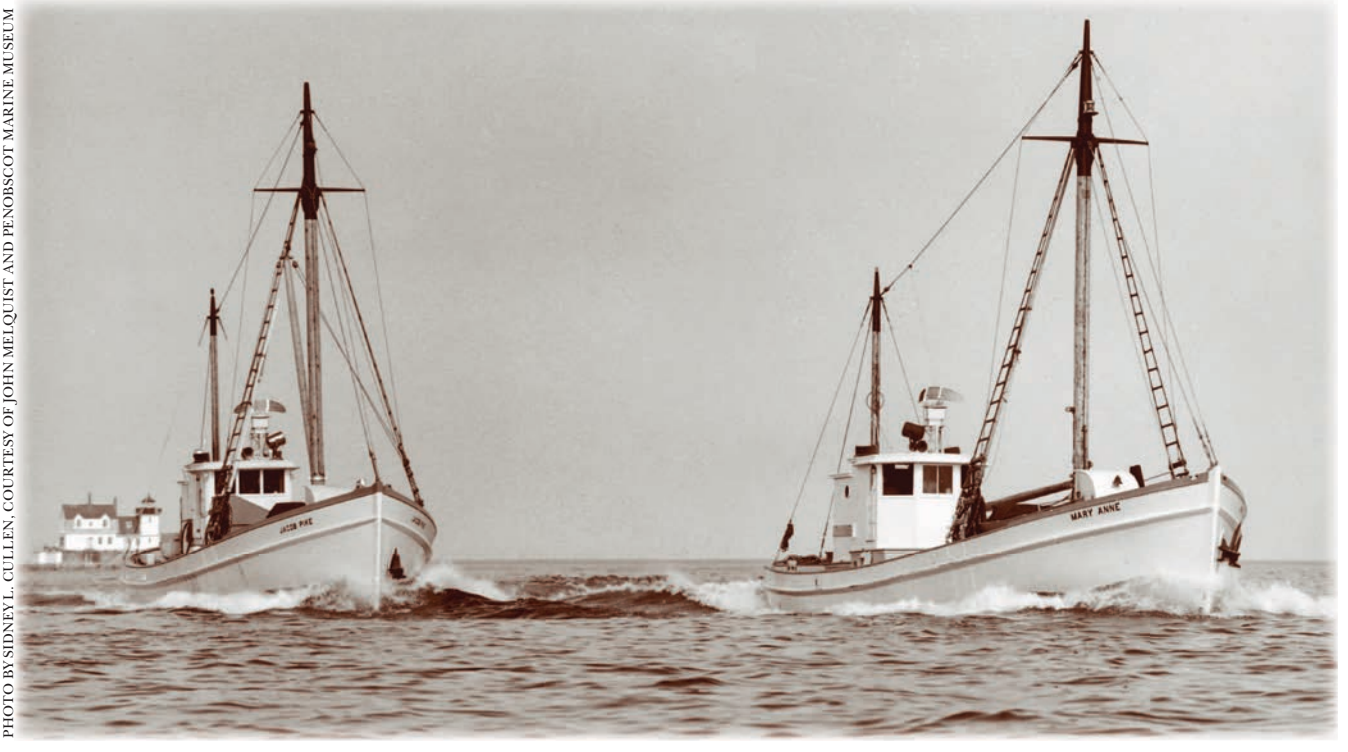
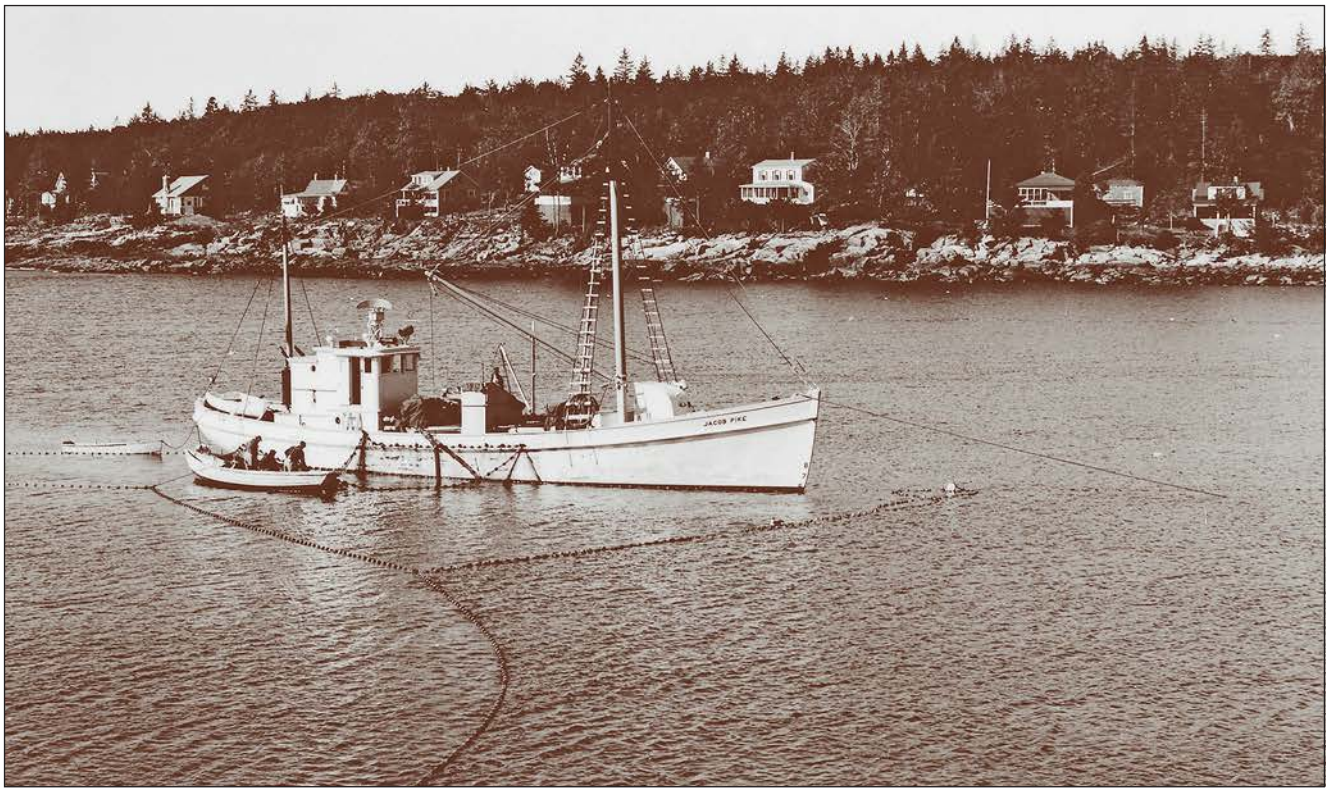


PHOTO BY SIDNEY L. CULLEN, COURTESY OF JOHN MELQUIST AND PENOBSCOT MARINE MUSEUM



W.H. BALLARD PHOTO COURTESY OF SOUTHWEST HARBOR LIBRARY

Herring, which had been "shut off" in Chamberlain, Maine ca. 1950, are being "pursed," or concentrated, alongside the JACOB PIKE. A big centrifugal fish pump has eclipsed the dip net for loading the catch.

Roy Wallace and his partner Herb Newbert were primarily shipbuilders building vessels to the designs by naval architects like Albert Condon, but occasionally Roy would make a half model on his own and build from it. When it came to modeling these carriers, his eye for form was as good as any naval architect. These vessels' sheerlines, bow profiles, gently flared bows, and hollow-lined, double-ended sterns were handsome to view; and the vessels themselves proved every bit as operationally perfect as their good looks prophesied. In my opinion, only the sardine carriers designed by Walter McInnis matched Roy Wallace's jewels. These were rugged vessels, put together like the draggers that Roy and Herb had built, with 4″ double-sawn frames and 2″-thick planking. Typical carriers built elsewhere were not only smaller in size but more lightly constructed, generally having steam-bent instead of sawn frames.

MARY ANNE's skipper fell asleep and ran her to destruction on Thrumcap Island off Pemaquid in the 1960s. After a conversion in the 1970s to a seiner with her pilothouse moved from aft to forward, RUTH-MARY disappeared from the records. The other four of these Thomaston-built carriers still survive. LOU ANN (now named AURORA and rigged as a schooner) carries passengers from Newport, Rhode Island. PAULINE was reconfigured for passengers as well, but with a ferryboat profile (see Save a Classic, WB No. 218). GLENN-GEARY (pictured on the cover of WB No. 159 as JOYCE MARIE) serves Boothbay Harbor Shipyard as its workboat. The site of the Newbert & Wallace yard, at the head of the St. George River, has become Lyman Morse Boatbuilding, which specializes in high-end yachts. The old shop has been replaced with new metal buildings and a Travelift is now located where the outside launching ways used to be. The JACOB PIKE, however, despite these great changes all around her, has remained remarkably original.

As the last carrier launched from Newbert & Wallace, the JACOB PIKE reaped a few evolutionary benefits. Her sheer is springier than those of her sisters, being 6″ higher at the stem. To make space for the then-newfangled radar, her pilothouse was slightly enlarged by squaring-off its front. Her frame bays above the waterline were filled with salt to better preserve the oak frames and hard pine planking, and she had a balanced rudder instead of one that swung off a rudderpost like her predecessors. Although Holmes Packing Co.'s owner, Moses Pike, resided in Lubec where he also had a factory, he still worked closely with Roy Wallace on these improvements, or as Roy used to recall, "Mose wanted this, or Mose wanted that...." One of the features "Mose," an MIT-trained electrical engineer, installed on the PIKE was a 220-volt AC electrical system, powered by a 40-hp diesel-generator. It was a first of its kind and drove, among other things, the electric anchor windlass and, later on, the fish pump.

Besides radar, the PIKE was equipped with a ship-to-shore radio-telephone and a fathometer. While under Holmes ownership, former skipper Dan Holmes (no relation) reports that the JACOB PIKE and MARY ANNE always got the best of everything.

After Holmes closed in 1979, the JACOB PIKE was sold and moved across Rockland Harbor to carry sardines for Port Clyde Foods, then ran for a brief time out of Blacks Harbor, New Brunswick, Canada, after Connors Bros. purchased Port Clyde Foods. She was soon back in the United States, however, snapped up by Dana Rice at a time when Connors was downsizing its aging fleet. Like many fishermen who recalled seeing her going about her business in years past, Dana loved the PIKE and didn't want to see her die. The boat was really too big for his lobster-buying business, but Dana nevertheless put her to work and kept her pumped out and running, and as time allowed he painted her and had her hauled out for maintenance. After hearing in 2005 that Dana would consider selling the vessel, Taylor Allen and I—along with our friend Bill Mayher—paid him a visit. Taylor, owner of Rockport Marine, was interested in a carrier he could convert for pleasure, but that idea didn't work out with the JACOB PIKE; too many unknowns, too big a project.

A couple of years later, in 2007, our local newspaper reported that during a March gale, the PIKE had broken loose from her mooring off Sorrento and had blown ashore. Worried about the vessel's future, Taylor and I headed for Prospect Harbor soon afterwards to view the damage, and talk again with a very discouraged Dana Rice. Despite the soft grounding and easy refloating, Dana really wanted to sell, and the deal was made then and there. Because Taylor and his wife Martha had already purchased the 70′ carrier WILLIAM UNDERWOOD and were well on their way to converting her, their plan for the JACOB PIKE was to play around with her during the summer, then donate her to the Penobscot Marine Museum (PMM) in Searsport in the fall. After a quick haulout and paint job, along with some system upgrades from Taylor, the museum took over ownership in December. Come spring, Sam Temple began with a roar as shipkeeper and shored up the deck under the pilothouse, repaired the house sills, replaced the rotten buffalo rail, and got the old gal looking a whole lot better. Taylor Allen remained involved, and had his Rockport Marine crew make her more reliable underway.

The JACOB PIKE lies deliberately grounded at Prospect Harbor in the spring of 2007, to inspect for damage. At about this time, Taylor Allen (far left) and his wife, Martha, bought the vessel from Dana Rice (black jacket).

MAYNARD BRAY

How Does She Handle?

After watching sardine carriers for many years as they ran back and forth from fish to factory, one of my goals has been learning firsthand how they handle, especially how they maneuver. One day in the summer of 2008, Sam Temple and I spent a day in Castine, Maine, practicing landings against the Maritime Academy's big steel barge, far from observers and other boats. We took turns not only coming alongside, but also putting the helm hard over and backing down, shifting to forward, steering, and giving her some throttle. Before long, we'd learned how far she'd coast, how long it took to stop her, and how quickly she'd answer her helm to port or starboard, and in going forward or backwards.

We found the JACOB PIKE a friendly craft, as most big vessels are, in that she's slow to do almost anything, giving you time to observe her speed and direction, then shift gears, throttle up or down, and steer one way or the other. Her rudder is comparatively small, so we were not surprised, in backing down, that its position has little or no effect on her direction. To control her course while backing, you have to re-aim occasionally by giving her a goose forward, with the rudder hard over. Then the wash from the propeller against the rudder will correct her heading. Her 54″ diameter propeller is big enough and deep enough to get a good bite on the surrounding water, and revved up in reverse, it can stop this big vessel surprisingly fast.

Underwater, the PIKE's long, straight keel makes for slow turning, but also keeps her from blowing around. With her high freeboard forward and the aft-located pilothouse, her silhouette is balanced so the bow doesn't tend to blow downwind as do boats having a cutaway forefoot. If you're patient and don't try to hurry, you soon understand how she likes to be handled. Sam and I came to agree with the past skippers we've talked to that she's really a dream to drive. Bow thrusters need not apply; she's perfect just the way she is. Just ask her present skipper, Eric Tweedy. *—MB*

MAYNARD BRAY

With her high bow and aft-located pilothouse, the JACOB PIKE's profile is well balanced in a crosswind. She's thus delightfully predictable in close quarters.

For a second time, in the spring of 2009, Taylor arranged to have her hauled and spray-painted at North End Shipyard, both for appearance and to keep her bottom clean and worm-free. That year, flying PMM's banner and with her original engineer Lawrence Lord aboard as a guest for the ride from Rockport, she put in an appearance at the Maine Boats, Homes and Harbors Show, being held only a stone's throw from where she used to unload sardines at Holmes Packing Co. Local folks who "knew her when" boarded and shared their recollections.

It always amazes me how people rally around a vessel that's been part of their lives. It's as if she's human, almost. One person who showed up for a nostalgic ride one day was Jacob Pike, Moses Pike's nephew and a descendant of the man for whom the boat was named. He is now a grown man, but when he was a child, he and his sister christened the vessel whose name he shares. Port Clyde Foods manager John Melquist loaned his remarkable photo album to PMM for copying, Dana Rice shared advice, ex-skipper Dan Holmes and his sisters visited and told of their happy times aboard as a family, Roy Wallace's son Raymond became involved; the list goes on. The PMM's collection of sardine-related materials grew significantly during this time, and ultimately a series of videos focusing on the JACOB PIKE was produced (www.penobscotmarinemuseum.org/Worlds-of-Jacob-Pike.html).

This big a vessel proved to be too great a distraction from the museum's core priorities. After two-and-a-half years of sporadic operation and upgrades, and with the outlook bleak for executing any of the ideas we'd come up with for operation and exhibit, the trustees decided to throw in the sponge. Taylor had generously berthed the JACOB PIKE at Rockport Marine's dock for two winters, but there was risk in such an exposed location and the thought of another winter was stretching luck too far. Through PMM trustee John Hanson, the Hinckley Co. of Southwest Harbor offered free hauling and storage for the 2009–2010 winter, and that's where she was

MAYNARD BRAY

Hauled out at North End Shipyard in Rockland, Maine, in 2011, the JACOB PIKE began a gradual upgrading under new owner Jamie Steeves. The work at this time included a few new planks and a thorough paint job.

resting when the decision to give her up was made.

Word went out that the JACOB PIKE would be available, free, to anyone who had a viable plan to keep her going. The idea was to get her back in the water before she dried out in the hot summer sun. Otherwise, Mother Nature would soon take over, and the PIKE would risk meeting her demise right there on the hard at Hinckley's.

Enter, Jamie Steeves. His proposal to take over ownership of the PIKE and put her back to work hauling lobsters and bait seemed almost too good to be true. We checked around and learned that this wasn't a pie-in-the-sky dream; Jamie was already in business as J&J Lobster Co., using the converted wooden oil tanker ROCKLAND GULF. He'd grown up in Rockland and knew the PIKE and loved her, just as many of the rest of us did. It was a perfect match. The vessel would be back working in the harbor where she'd begun, and once again would be serving the fishing industry. If and when she needed to be hauled out and worked on, the North End Shipyard's railway was but a stone's throw from her loading dock, and here she'd have access to a facility experienced in sawn-frame construction and repair.

While the PMM's role in preserving the JACOB PIKE might be viewed with skepticism because of its inability to keep her long-term, its role in saving her deserves a closer look. Curator Ben Fuller spent uncounted hours documenting and cataloging the vessel's equipment and stories, finding people with connections to the PIKE, collecting sardine-related materials, and generally worrying over the boat's welfare during those years. And the PIKE's ultimate return to a working life is a preservation success. Matt Murphy, editor of this magazine and a PMM trustee, worked out the details of the transfer to Jamie Steeves. He summed up the museum's role this way: "Not only was the vessel saved, but her original purpose was, too. This project turned out to be more than about preserving an object. It preserved a way of life."

Measuring the JACOB PIKE—a lesson in photogrammetry

by David Cockey

We measured the JACOB PIKE by photogrammetry, the process of making measurements using photographs. While this technique is almost as old as photography itself, recent developments in affordable cameras, computers, and software have made it feasible for measuring boats.

Photogrammetry depends upon identifying common points on the boat's surface in multiple photos. To define those points, a grid of easily seen blue tape along with stickers containing dots and coded

PHOTO BY MAYNARD BRAY. DRAWING BY DAVID COCKEY

David Cockey (shown here), president of the Museum Small Craft Association, led a group of volunteers who helped to measure the JACOB PIKE in the spring of 2010. Cockey employed photogrammetry, which relies on multiple photographs and surface-defining points on the vessel's hull. The information gathered was used to produce the wireframe drawing shown here, and can also be used to generate a conventional lines plan.

Under Steeves's ownership, the JACOB PIKE was put back in the water in July of 2010. She hardly leaked, was fueled right up, and within a couple of hours was on her way to Rockland where Jamie's mom and dad, among others, greeted us at what would be her new dock—one she'd be sharing with the cruise schooners AMERICAN EAGLE, HERITAGE, and the ISAAC H. EVANS and only a couple of miles north of her first home.

More than a year has passed since Jamie took over, and the JACOB PIKE has demonstrated that she's not ready to die quite yet. Every day that the weather permits and the lobsterboats go out, she heads east to Vinalhaven, loaded with bait, fuel, a crew of three plus her skipper and purser (called the "slip bitch"), and more than 200 empty lobster crates piled high and tied down, each crate when filled holding 90 lbs of lobsters. The vessel leaves in late morning, runs at 9½ knots for an hour and 20 minutes, and arrives at her float near Carvers Harbor about noon, ready for the first of anywhere from nine to fifteen lobstermen to come alongside where they'll discharge their day's catch, take on fuel and bait, and get paid the difference. Lobstering has never been better, so the operation so far has been successful—to the tune of over a million pounds of live lobster delivered in 2011 by the JACOB PIKE alone.

Eric Tweedie skippers the PIKE. He loves wooden boats. Almost all of his adult life before the JACOB PIKE was spent lobstering, and always from wooden boats. His last was a 41′ Peter Kass lobsterboat named TEMPTRESS that he had built new and helped with her construction. Before that, he fished a Rich Brothers–built boat. He grew up in nearby Spruce Head and went to high school in Thomaston, the town where the JACOB PIKE was built. In fact, the granddaughters of builder Roy Wallace were his schoolmates.

The JACOB PIKE may not be getting any younger, but little by little she's getting better. Jamie's boatbuilder Dave Hancock keeps digging out and patching up rot and has pretty much tightened up the deck as well as replaced the railcaps and portions of the planking. Jamie himself has cleaned out the accumulated debris and leftover rusted machinery from her engineroom. During her last haulout in April, the paint was stripped from the hull, local caulker Geno Scalzo tightened up her bottom seams, and the propeller was removed and refurbished. She's had a new generator installed, along with a hydraulic hoist for handling the lobster crates, lifts of bait, and other heavy stuff. More upgrades are planned.

Before each departure, her fuel tanks are filled to capacity—but she'll consume only a small part of what's there; most of the 850 gallons will be pumped into the fuel tanks of the arriving lobsterboats as they lie alongside to unload their catch. Additional fuel is carried in barrels on deck. Since the PIKE herself consumes only about 15 gallons an hour, it takes but a small portion of what she carries to keep her running. (Eric tries to keep a couple of hundred gallons in reserve, however, just in case.)

The PIKE isn't the only outfit buying lobsters on Vinalhaven. There's the Fisherman's Co-op, Linda Bean's Harborside Wharf, and the wooden-hulled ex-trawler IRENE ALTON that also makes the Rockland-to-Vinalhaven run each day to Old Harbor. The

targets were applied to the vessel's port side (the least altered side) by a team including David and Katherine Cockey, Jonathan Taggart, Pete Mathews, David Platt, and Maynard Bray. A series of overlapping digital photos of the hull were then taken from multiple angles, after which the tape and stickers were removed. Total time for this field work was only about five hours on a warm, sunny day in late March 2010.

The next steps took place later at the computer. First, the exact locations of the points on the hull surface were defined in space. For this, I used a program called PhotoModeler. To define their locations, each point must be identified in at least two photos; the accuracy gets better with more photos. For the JACOB PIKE, we defined 1,400 points. While most of them came from the intersections of the tape grid or the applied stickers, other points were also identified based on surface features such as plank seams, edges of sheathing, and fastenings. (One of the advantages of photogrammetry is that data can come from locations that weren't identified as points when the boat was initially photographed.) The software then calculates the locations of all the points and writes their coordinates into a file for use by CAD software.

To turn the points into a three-dimensional virtual model, we used a surface modeling program called Rhino3D. The points' coordinates were imported into Rhino3D, their boundary curves (for example, the sheer and stem) identified, and the primary surfaces of the planking and deadwood developed. The rails, bulwarks and rudder were added afterwards. Once the three-dimensional virtual model was complete, a simple computer function derived the perspective views, as well as a traditional lines plan.

There are other contemporary methods of lines-taking that involve lasers, but these require equipment that can run from $5,000 to $100,000. There are also time-proven manual methods that are still ideal for small boats. Photogrammetry proved to be a good balance between cost and expedience for a vessel of the JACOB PIKE's size. The only field equipment required is a reasonably good digital camera and the tape and stickers used as targets. The major disadvantage of the method is that the targets must be stuck to the surface of the hull. The length of time required afterwards for extracting the data from the photos varies with the complexity of the hull and the type of targets used. If coded targets are used, their identification can be largely automated. A tape grid as used on the JACOB PIKE requires manual identification of each point.

MAYNARD BRAY

Loaded with bait and fuel for the incoming lobsterboats, and plastic crates stacked high and ready for filling with lobsters, the JACOB PIKE nears her daily Carvers Harbor destination in the fall of 2011.

fishermen here vary their habits, sometimes going to the PIKE and at other times favoring one of the other buyers. But the PIKE has a loyal following.

Penobscot Bay can get rough, and occasionally on the return trip, the PIKE has to face it. Eric's roughest passage was coming home against an October nor'wester, the same 40-mph wind that took down the Matinicus mail plane and killed its pilot. Steaming toward Rockland that day, even though throttled back, the PIKE stuck her nose under and sent solid water back to the pilothouse. But she kept going and finally made port without any more than the usual leakage through her bottom. Rough going is an exception, not the rule. Both Eric and Jamie realize that she's a special responsibility. These guys have come to understand her, try to handle her gently, and give her the upkeep she needs as time and finances permit. I doubt she could be in better hands.

For me personally, having the JACOB PIKE back at work in my old hometown means a great deal. Although the harbor is largely gentrified, the pocket of commercial activity at the north end still hums away. And the JACOB PIKE is right there in the middle of it, and I hope will be for many more years to come. She's a much-loved vessel that has benefited from many admirers who don't want to give up on her—at least, not yet.

Maynard Bray is technical editor for WoodenBoat.

ADVENTURE

CAMERON KANE

A little boat goes a long way

by Michael "Tug" Buse

In 2004 I took a job in Sioux City, Iowa. Having been raised in the Puget Sound region of Washington State and gone to college on the coast of Maine, I found it tough to be a thousand miles from the nearest seashore, landlocked, save for the reassuring flow of the mighty Missouri River.

One day, while sitting on a park bench overlooking the river, an epiphany struck me as if with the full force of the river's current: There it was, my way out. I could travel down the Missouri and then the Mississippi to the Gulf of Mexico. But why stop there? Bowdoin College, my alma mater, lies in the heart of a prime boating region in Brunswick, Maine; it would make sense to extend my wandering up the East Coast, and finish there. With only a tenuous attachment to Sioux City and a burning desire to explore, it was time to plan my escape. All I needed was a boat.

The right boat would be wooden, so I could build it myself. It would be trailerable and built in a modest-sized garage, so would have to be fairly small. It was also to be a good camp-cruiser, capable of accommodating me for extended periods of time. I reviewed a number of designs before stumbling upon the Commodore Trunion–class sailing pram in William Garden's book *Yacht Designs II*. The boat's ample volume suggested it would make a fine camp-cruiser. Its gunter rig was lofty yet could be stored entirely within the boat's own length when not in use. The hull's easy lines suggested it would move well through the water—they did not make it easy to build.

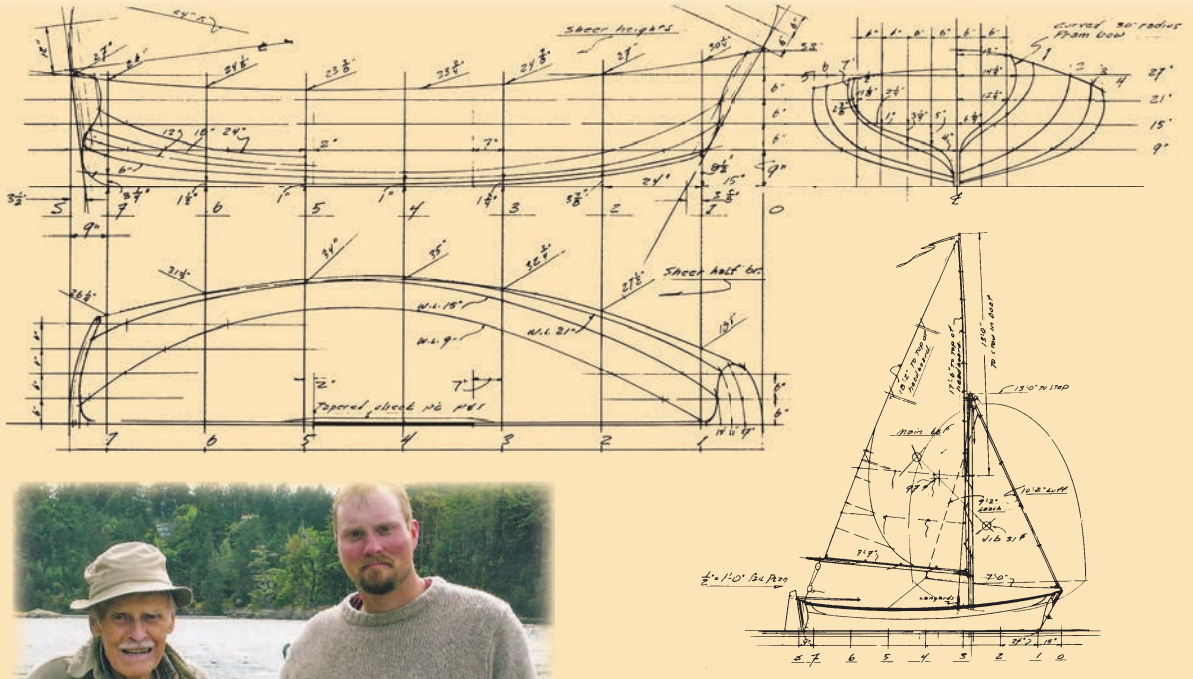
And so I settled on the boat that would become ADVENTURE, a stout, pram-bowed 14-footer. I built her of cedar strips and epoxy over the course of five years, and launched her on July 9, 2007.

Before building ADVENTURE, I had despaired that, in this modern world, there were no new places to explore. While putting on the finishing touches, it occurred to me that I was missing an important point. This modest boat would, indeed, take me on a voyage of discovery. Not a voyage to uncharted lands, perhaps, but an exploration of myself, my little boat, and my knowledge of my country.

After sea trials and tweaking, I slipped ADVENTURE into the Missouri River on August 17, 2009, and began my long journey from the Midwest to Maine.

ADVENTURE is truly a remarkable design. She is a pram and also displays elements of both a sloop and a catboat. She is beamy (6′), very stable (550 lbs balanced on her rail couldn't capsize her), capable of breasting the open sea—although spray can be a bit of a problem when motoring into the

***Above*—Author Tug Buse relaxes at the helm of the 14′, Bill Garden–designed pram ADVENTURE in which he traveled 5,000 miles from Iowa to Maine. The pair are still sailing together in Washington state, and Tug is dreaming of more big adventures.**



CAMERON KANE

The Commodore Trunion 14' sailing pram is the late William Garden's design No. 674. Tug chose the design for its ample volume, easy lines, and lofty gunter rig with short spars that could be stowed within the boat's own length. Garden is pictured at left, with the author.

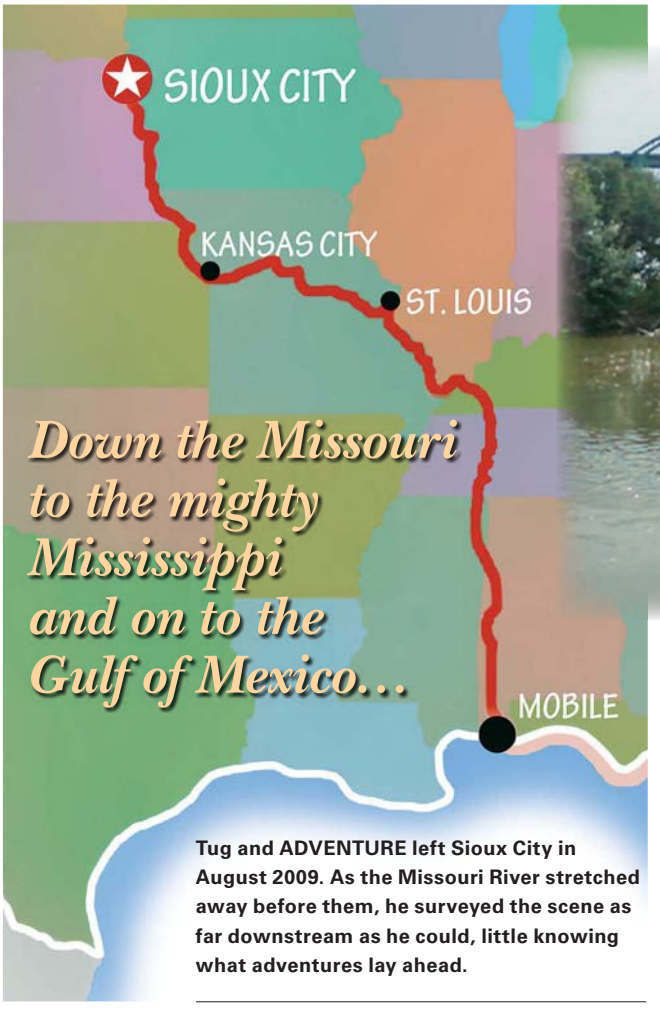
wind—and she can wriggle up the thinnest backwater. All of these traits stood us in good stead, but when it came to shallow waters no feature was more valuable than ADVENTURE's ability to lay upright in the mud without damage. With her centerboard nestled up in its trunk, the rudder blade kicked up, and the motor elevated, she would sit like a duck on the bottom (provided the bottom did not consist of large rocks, of course).

Equally useful, but less familiar in North American waters, was ADVENTURE's gunter rig. Popular in the U.K. for smaller daysailers and dinghies, the gunter rig has several advantages: Requiring a shorter mast than a marconi, all its spars—mast, gaff, boom—can be stowed within the length of the boat. With its short mast, the rig (with sail lowered) has a lower center of gravity, reducing the likelihood of a capsize on the mooring or at anchor during a storm. While cruising, its most practical advantage was simply that, by slacking the halyard and dropping the gaff, I could instantly lower ADVENTURE's rig in order to shoot under bridges and avoid overhanging trees.

As ADVENTURE and I set out on our long voyage of discovery I felt sure we would meet all kinds of people—hospitable, helpful, kind, generous, and yes, skeptical. One of our earliest encounters sat firmly in the last category. A fellow in Omaha City asked me where ADVENTURE and I were headed. When I told him, he replied: "H'ain't no way! Ocean swalla that little boat up!"

At last, I thought, I'm an explorer: In my reading, I had encountered many such skeptical words spoken to famous adventurers throughout history. None were more skeptical than those heard by Meriwether Lewis and William Clark. As ADVENTURE and I traveled in Lewis and Clark's wake from Sioux City to St. Louis, I thought about those extraordinary people who went before us. In 1804, the Corps of Discovery had camped at the mouth of Floyds River in present-day Sioux City where, on August 20 Sgt. Charles Floyd died of what Lewis described as "bilious colic" (today thought to have been a burst appendix). For months they had struggled against the thick, muddy, snag- and bug-infested Missouri, without charts or maps, without knowledge of what was around the next bend, without any means of quick communication with the world beyond. As I mused on their isolation and bravery, I thanked the modern world for its medical advances, 911, and the global positioning system.

While I had embarked on a voyage of discovery, my journey was never intended to be one of derring-do. I saw great value in combining the old ways with the new. Thus, while I always had my compass at the ready, my charts to hand, and my weather eye open, I came to love the little handheld GPS unit that I carried. It was fantastic for double-checking our position, calculating arrival times using its ground speed data, and finding aids to navigation in the fog. Furthermore, I carried all the standard safety gear: radio, flares, first-aid kit, a guide to boating medicine, and more. My parents had also given me a device that could signal a satellite and let them know my exact position, and the 911 feature would allow me to call for assistance quickly if I needed it. Each night I switched on the signal so my parents would know my location, and while I never did use the 911 feature, it was comforting to know it was there and that I would probably not die of "bilious colic," alone in some backwater.



CHRIS LEVINE

Tug and ADVENTURE left Sioux City in August 2009. As the Missouri River stretched away before them, he surveyed the scene as far downstream as he could, little knowing what adventures lay ahead.

ADVENTURE and I had departed Sioux City with sails, 10′-long sweeps, and an electric motor. I used the motor but little. Most of the time, when not sailing, ADVENTURE was propelled by 4 knots of current and an occasional guiding stroke from the sweeps. Nevertheless, after only a few weeks, the motor shorted out, leaving me with a feeling of vulnerability that I wished to quash at the earliest opportunity. Not long after, fortune smiled upon us as we encountered the kindly folks at St. Joseph Outboard Motor and Yacht Club in St Joseph, Missouri. They adopted me and helped me obtain a 4-hp gasoline outboard motor. And, as tough as it is for a true sailor to admit, without that motor ADVENTURE and I would never have made it to the end of our voyage.

My philosophy was and still is this: The more forms of propulsion a boat has, the better. ADVENTURE had three: sails, oars, outboard. The likelihood of all three failing at once was very slight.

Motorized vessels are not new to the Midwest. Surely the most remarkable object ever to chug up the Missouri River was the steamboat WESTERN ENGINEER, which led the forward guard of the ill-fated Long-Atkinson Expedition of 1819. At 75′ in length, her beam was a narrow 13′. To minimize draft (she drew just 19″) she had a paddle wheel built into the stern, and to impress the Native Americans along the river she was designed to look like a giant dragon, her bow adorned with a carved dragon's head out of which was piped her steam exhaust, no doubt to great effect!

There were times at night, as the sun's rays shone over the hills and cast their last light on ADVENTURE's deck, I could almost hear the WESTERN ENGINEER puffing upstream.

Entering the Mississippi and passing St. Louis, ADVENTURE hit a wing dike, a projection of rocks used to control the flow of the river's current. My heart leaped into my throat and then sank into my shoes. No water came in, but although I beached as quickly as I could, I could not get ADVENTURE far enough out of the water to see her new scars. My little boat had been wounded; it was an inauspicious beginning on that mighty river. The worst was yet to come.

The next day we encountered a heavy storm. A great cinderblock wall of clouds bore down on us and when the rain hit it felt as though a firehose had been turned on, aimed directly at my little boat. We ran for cover as fast as we could and, not for the last time, I silently thanked the good people of the St. Joseph Outboard Motor and Yacht Club, whose engine pushed us in to the shallows just as NOAA issued Tornado Warning No. 746. The following morning ADVENTURE had stood up to an overnight pounding on a Mississippi sandbar; of the two of us, I think I was the more battered.

The lower Mississippi has few facilities for transient boats, so we detoured to the Tenn-Tom Waterway. By going up the Ohio and the gorgeous Tennessee River to a canal that connects the Tennessee and Tombigbee Rivers, a mariner can travel down the Tombigbee and Mobile Rivers all the way into Mobile Bay and the Gulf of Mexico.

It was on the Tennessee River that I met Buzz, a retired Vietnam veteran who had decided to give in to his wanderlust just as I had. Buzz had a small boat too, and had come from Illinois. The first thing that struck

me about Buzz's boat was the decidedly small anchor that hung off the bow. Buzz had grown up landlocked without much boating experience, and had clearly believed the anchor manufacturer's small print. I've often wondered how the anchor folks come up with their ratings: "Our 7-lb anchor will hold a 3-ton boat just fine in the middle of a lake with a 1-knot wind."

Again, my philosophy: You want an anchor, chain, and rode that will hold you in a hurricane. A good rule of thumb is simply to double the manufacturer's recommended size and weight for your boat. William Garden, not only a great designer but also a master mariner, recommended a 15-lb anchor for a boat similar in size to ADVENTURE, so I purchased a 16-lb Danforth, and have never regretted it. For Christmas that year I gave Buzz a 15-pounder (complete with a festive bow) to replace his 7-lb anchor.

We agreed to travel together at least as far as Mobile. And it was in convoy that we entered the Gulf of Mexico in early December 2009. It was an amazing sight: After all the riverbound weeks and months, the seemingly endless sea stretched away before us. I felt as William Clark had felt 200 years before me when he first beheld the salt water of the Pacific: "Ocean in view! Oh, the joy! We are in view of the ocean, this great…ocean which we [have] been so long anxious to see."

LYNN DERCK

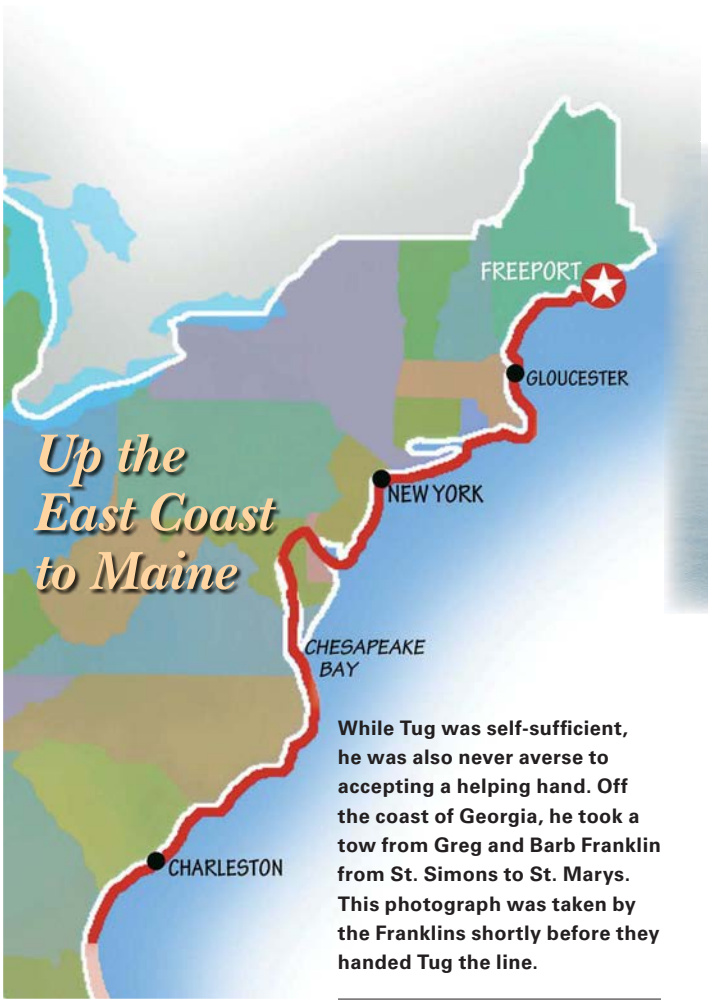
Rather than round the tip of Florida, Tug took ADVENTURE through the Okeechobee Waterway. Leaving the Gulf at Fort Myers, he traveled the Caloosahatchee River to Lake Okeechobee and then down the St. Lucie River to Stuart, on the Atlantic Coast.

Buzz and I parted company in Mobile, and ADVENTURE and I traveled alone to Florida, where we spent more time than in any other state. I knew nothing of Florida but had imagined stereotypes of concrete and congestion. Happily I was proved wrong.

After surviving temperatures in the teens in the Florida Panhandle in January, ADVENTURE and I tackled the "Big Bend." The protection of the Intracoastal Waterway ends at Carrabelle, and then it's open gulf for 200 miles of coastline. The waters here are shallow and very difficult to navigate, but the Big Bend provides some of the most spectacular and unspoiled natural beauty east of the Mississippi. It was here, more than anywhere, that I blessed ADVENTURE's centerboard design. The beautiful village of Steinhatchee ("a quaint drinking village with a fishing problem," according to a local T-shirt) had a deep and well-marked channel approach from Dead Man Bay, but this was true of no other port that we visited along the Bend. We grounded on the mud—which looked like ice in the moonlight—near St. Marks and again at Keaton Beach. And on the Suwannee River—made famous by Stephen Foster in his song "Old Folks at Home"—ADVENTURE's shoal draft saved her from going aground on rocks in a very low tide.

We had many memorable visits in Florida, but one stands out: the Gilbert's Bar House of Refuge Museum in Stuart. Due to lack of infrastructure in the 19th century, sailors who were shipwrecked on the coast of Florida would often die of thirst and exposure. The Federal government established ten "Houses of Refuge" along the state's east coast where shipwrecked sailors could find water, food, and shelter until rescue arrived. The refuge at Gilbert's Bar is the last of these Houses of Refuge still standing. For me, it was a sobering reminder of earlier, harder times, and that even now the ocean can be a formidable environment.

It is, perhaps, easy to forget the long history of Florida's east coast. Don Juan Ponce de Leon discovered these waters in 1513, claiming the land for Spain, and naming it La Florida—Land of Flowers. The magnificent city of St. Augustine was founded in 1565, 42 years before the English colony was settled at Jamestown, Virginia, and 55 years before the Pilgrims landed at Plymouth Rock.



THE FRANKLINS

While Tug was self-sufficient, he was also never averse to accepting a helping hand. Off the coast of Georgia, he took a tow from Greg and Barb Franklin from St. Simons to St. Marys. This photograph was taken by the Franklins shortly before they handed Tug the line.

From Florida we struck out to Georgia and South Carolina, Savannah, Charleston, and St. Helena's Island. It was on St. Helena's that I met an African-American gentleman who spoke Gullah—a mixture of African and English languages. In an unforgettable interview in an African-American Praise House, a small church built by slaves, this gentleman told me of growing up on the island and watching people fishing from small wooden boats propelled by poles.

Despite the intellectual and emotional stimulation that I encountered on this part of the trip, I was also lonely. I had been voyaging for eight months and while at night I would listen to the water slapping against ADVENTURE's hull and be reminded that I had a constant companion, I yearned for a good honest conversation with another human being.

I found it in Charleston, South Carolina.

ADVENTURE and I shot past the Battery, where the infamous pirate Stede Bonnet was hanged until death after his blockade of the city with his pirate compatriot Edward/Edmund Teach, more familiarly known as Blackbeard. In the distance I could see Fort Sumter, where the Civil War was ignited in 1861. And finally, in Charleston itself, I met Lindsay, a tour guide working for Charleston's City Council Chamber, who spent a day and a half showing me her native city.

On departing I found myself re-energized and sailing in the wake of Blackbeard's small sloop ADVENTURE—yes, my boat and the pirate ship shared that name—to the Outer Banks. In 1718, learning that Blackbeard had a crew of only about 20 men, Lt. Robert Maynard swooped and hunted him down at Ocracoke Island. Maynard boarded ADVENTURE, and after horrific hand-to-hand combat, beheaded Blackbeard and tossed his body overboard. His watery grave is said to be located at Teach's Hole off Ocracoke.

We left the Carolinas with my dear friend Karen as a temporary passenger and sailed on past diving pelicans, across the shallow waters of Pamlico Sound and, ever anxious to make it to New England before the winter, arrived on the Chesapeake along with the heat and humidity of hurricane season.

We called at Newport News, Tangier Island, Monticello, Washington, Baltimore, Gettysburg, St. Michaels, Philadelphia, and Valley Forge before heading down the Delaware. At last we passed Lady Liberty and sailed under the Brooklyn Bridge into New York Harbor. I had expected to be excited, but had not anticipated the feeling of unsurpassed awe as we arrived, sailing jauntily, perhaps a little cheekily, past huge freighters—I suppose that by then I had confidence that my little ADVENTURE would be bringing me home in one piece.

The weather was chasing us, so we did not linger in New York but instead sailed on to Mystic Seaport in Mystic, Connecticut, where we met, among others, a couple who had circumnavigated the world, the owners of the 1885 British motoryacht AMAZON, and the crew of the AMISTAD replica. I volunteered aboard the AMISTAD, and her story greatly troubled me. The crew treated me like one of their own, and the visitors who came aboard eagerly listened to the story of the struggle of the African slaves who had sailed aboard the original AMISTAD, and of their humiliation and excruciating pain. It was enough to twist me up inside.

Continuing up the coast, we were driven into Boston, Massachusetts, by Hurricane Earl. But while we were there I experienced one of the great highlights of the trip. I visited USS CONSTITUTION and obtained permission to sing a sea chantey onboard. I chose "The CONSTITUTION and the GUERRIÈRE," which tells the story of the famous naval battle of the War of 1812. When I was finished, one of the sailors took both my name and ADVENTURE's and entered them in the ship's log. Rarely in my life have I known such pride: Both my boat and I are in the log of the USS CONSTITUTION along with the likes of Capt. Isaac Hull!

Ironically, the lowest point in the trip came soon after, when ADVENTURE and I reached Gloucester, Massachusetts. It is a lovely town with friendly folks, but the weather turned against us. Gale-force winds held us there, just one day's sail from Maine! When I heard a local fisherman say that "This time o' year the weather turns and don't get good again," I began to wonder if ADVENTURE and I had come through wind, rain, cold, heat, lightning, tornadoes, and hurricanes only to be stopped within one day's reach of our goal?

Every night the radio predicted reasonable weather for the following day. Every morning the forecast called for high winds. But at last, on the morning of September 13, 2010, the miracle happened: the prediction of good weather held. Around noon that day, ADVENTURE's nose came within a seaweed strand of a whistle-buoy marked 2KR–"KR" for Kitts Rocks, right off Kittery, Maine!

Three days later we tied up at South Freeport, the final port of our trip. Next day, as I walked among the historic buildings of Bowdoin College, the trip seemed like a dream. I felt as if I had just awakened. It's impossible to neatly summarize all of the discoveries I made about my boat, my country, myself. I learned that, for the most part, my fellow citizens are kind and hospitable people. I also learned that as a nation we have a rich and fascinating, if sometimes troubling, history. A quote attributed to an old Civil War veteran kept milling around inside my head; it seemed to articulate how I felt about my voyage: "Did it not seem real? Was it not as in the old days?"

Many people seem surprised that such a small boat could have gone so far. To them, and to the man in Omaha who told me "h'ain't no way," I say this: Never underestimate the fire that a true adventure can put in your spirit. I am wiser and tougher than when I began, and as for my boat, the wounds that she suffered in the Mississippi proved not serious, and after 13 months in her company I am more fond of her than ever. She is my own dear little boat of whom I say simply this: Don't be fooled by her size, I think you'll find that a little boat goes a long way.…

Michael "Tug" Buse is now living in Seattle, Washington, where he grew up. Like many he is struggling to find a good job. ADVENTURE now lives in a snug little shed on his parents' property. He plans someday to build an oceangoing sailboat in which to circumnavigate the world…with ADVENTURE hung on davits, ready to explore foreign backwaters.

Ideas for small-boat camp-cruising

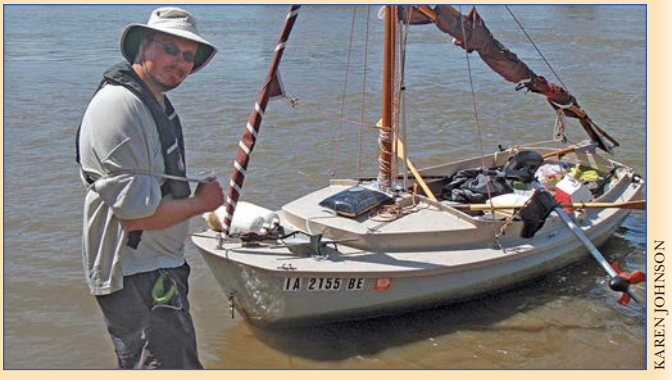
I camped aboard my little boat for 13 months, through all kinds of weather, and it taught me some things.

ADVENTURE, just 14′ long by 6′ wide, has a boom tent that completely encloses her cockpit. The tent is rubberized along its edges where it snaps onto the coaming to keep the bugs out. If you're going to have a boom tent custom-made, I would suggest using a heavy, water-resistant, but breathable fabric such as Sunbrella. Have side "windows" fitted with mosquito netting. Have a truly waterproof rain fly and have it sewn on to the tent, but only along the very top. Make sure all the seams are watertight. If it rains, you can roll down the rain fly so that it covers your tent; if it's hot and you need ventilation, you can roll it up and tie it at the top of the tent.

To infill the space between ADVENTURE's seats and thereby create a sleeping platform for my air mattress, I rigged hinged flaps like the leaves on a table that fold up and lock into place. When not in use, they swing down and leave the cockpit clear; when raised, they provide a generous sleeping area for so small a boat.

For hot weather, carry cotton clothing, a folding Chinese fan, and a good broad-brimmed hat that ties on. For cool and wet weather, have wool or synthetic clothing and chemical hand warmers. And invest in good raingear.

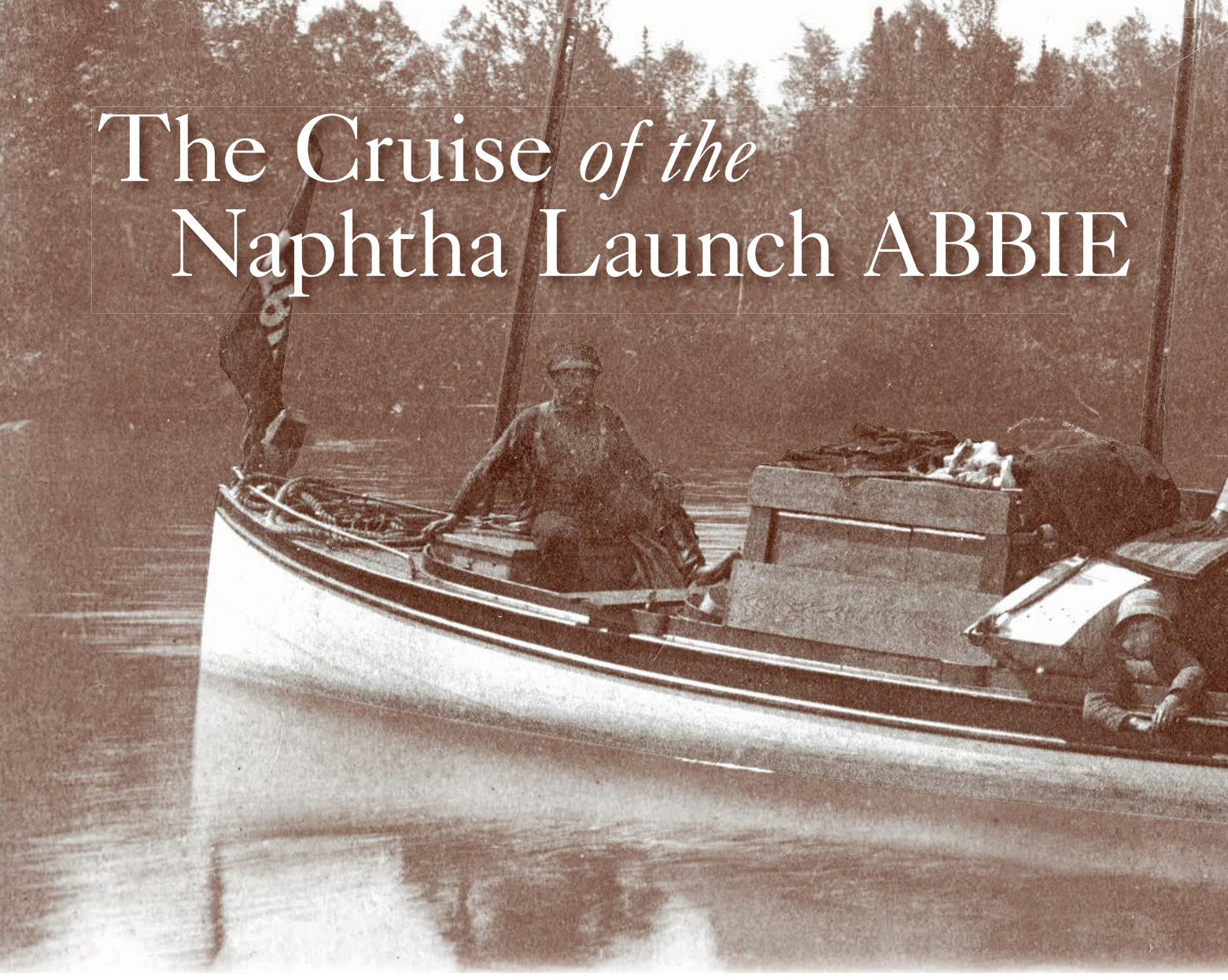
Food and drink can vary according to personal taste, but I found canned brown bread to be a godsend (it's usually located next to the baked beans at the grocery store). Take along plenty of fluids—and be sure to drink them. On my trip with ADVENTURE I was unsure how easy it would be to reprovision along the rivers and so took weeks' worth of nonperishable food—canned fruit, rice, pasta, and soup. Once we were on the coast, food was easier to obtain and so I bought and ate fresh stuff whenever possible. I had a non-pressurized alcohol stove for cooking, and carried a small insulated bag as a cooler. I stowed all the food beneath the aft thwart where it provided valuable stern ballast. Although I did not fish often (licenses and decent bait were hard to come by), local fishermen often shared their catches with me. —*MB*



KAREN JOHNSON

Tug Buse's philosophy of propulsion: With three forms of it—sail, oar, and motor—a small boat should be able to get herself out of most scrapes. Equally important, when camp-cruising, are the icebox, the cockpit cover, and the stowage space. In ADVENTURE stowage included space beneath the seats, beneath the side decks, and beneath the foredeck.

The Cruise *of the* Naphtha Launch ABBIE



by George D. Jepson

On a midsummer's morning in 1889, a zephyr rippled across the harbor in Marquette, Michigan, stirring the long skirts of ladies on the dock and the Stars and Stripes flying on a stern staff stepped on the fantail of the launch ABBIE. The diminutive craft—30′ LOA, with a 5′6″ beam, a draft of 21″—was about to embark on a month's coastal cruise around Lake Superior with a six-man crew, including owner John Munro Longyear.

The sleek launch, propelled by a 4-hp naphtha engine (see sidebar, page 74), was the latest thing for amateur motor boaters. She was capable of reaching 6 mph in quiet waters. ABBIE's white, carvel-planked hull was packed to the gunwales with provisions and gear. Between her 5′-long foredeck and 4′-long after deck, the cockpit was open. The engine was mounted well aft, as in all naphtha launches, and had a signature burnished brass boiler and integral stack. A 70-gallon fuel tank was fitted under the foredeck, and amidships a 100-gallon drum containing additional fuel was mounted on blocks. Bench seats extended 17′ along each side, with one thwart in the bow and another forward of the engine. The white oak, ash, cedar, and mahogany of the gunwales, coaming, decks, and inside trim were finished with shellac. Small sprit-rigged sails could be raised on each mast—one far forward and the other abaft the spare naphtha drum. These provided alternative power in favorable conditions and stabilized the boat in a blow. A pair of ruby-striped canvas awnings—a flat one for a sunshade and a peaked one for wet weather—could be folded or rolled for easy stowage. The crew took their meals at a table that could be knocked down for stowage.

Other than a sendoff from a few well-wishers, there

***Above*—Heavily laden with gear, the 30′ launch ABBIE voyaged 700 miles in western Lake Superior under skipper John Munro Longyear and his crew of five friends, seen here with netting protecting their faces and necks against bites by the ubiquitous mosquitoes and blackflies. The trek was very likely the first recreational powerboat voyage on the lake.**

An 1889 Lake Superior adventure

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Avid sportsmen and anglers, the crew often tried their luck for trout and pike, which were plentiful in what was still very much a wilderness.

was little fanfare as the hands stepped aboard. At precisely 10:45, Longyear ordered the mooring lines cast off and the engine engaged. Final farewells were shouted as the sleek craft cleared the dock and gained headway toward the south end of the breakwater and the open lake. ABBIE—named for Longyear's daughter, Abby, though spelled differently—was outward bound on a journey that would cover nearly 700 miles. Longyear believed she was the first recreational motorboat on Lake Superior. Up until ABBIE's arrival, schooners, bulk freighters, and passenger steamers (see WB Nos. 208, 216, and 220), along with Mackinaw boats (see WB No. 158) and canoes, had dominated the world's largest freshwater lake.

Gas Engine & Power Company in Morris Heights, New York City, began manufacturing naphtha engines and launches along the Harlem River in 1886. Autumn leaves were falling that October when Longyear (see sidebar, page 72) visited the plant to look at the new boats. Obviously impressed, he ordered a 30′ model the following March. "I care more for strength and utility than for ornament," he wrote in a letter to the company. "It will be frequently necessary in my cruising about the great lakes [sic] to draw the boat out on the beach. She should therefore be rigged with a strongly anchored ring in her stem to which tackle blocks may be attached and she should also be so strongly built that she will not be racked by being frequently beached."

ABBIE was finished by mid-May. Longyear and three

John Munro Longyear

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John Munro Longyear arrived in Marquette, Michigan, in 1873 aboard the wooden propeller steamer ROCKET as a sharp-featured 23-year-old with a dark, full beard and mustache. Born near Lansing in 1850, he had ended his formal education at age 15 because of health problems, and before arriving in Marquette he had held a variety of jobs, including store clerk, post office clerk, law clerk, deputy U.S. Marshal, and a lumber mill log scaler. Moving north, however, he found his true calling.

With little money in his pocket when he stepped ashore, he sought to advance his career by becoming a "land looker," exploring Michigan's Upper Peninsula wilderness to assess, purchase, and sell lands rich in minerals and timber. It was the foundation of a career that lasted more than 50 years, during which he amassed a fortune. Longyear proved his mettle during the Panic of 1873, weathering the five-year worldwide financial storm. Carrying an 80-lb rucksack, he trekked deep into the north woods, accompanied by Indian guides and fellow lookers. Living in the wild for weeks at a time, he assessed and mapped the land and natural resources for clients, who often paid him in acreage rather than money.

Late in life, Longyear acknowledged the role outdoor living had played in his personal development. Within 24 hours of returning to town, he once wrote, "I was eager to return to outdoor living, which tended to develop a man's self-reliance, patience, and perseverance, in fact, all his physical and mental resources. You are obliged to do everything on your own."

By 1878, the slender explorer was a seasoned and respected land looker. A year later, he married Marquette schoolteacher Mary Hawley Beecher. Longyear continued to build the business while Mary looked after the household and, eventually, their six children. Already a wealthy man by the mid-1880s, Longyear further secured his fortune with an agreement to develop iron ore in Minnesota's rich Mesabi Range.

Over the years, Longyear owned a variety of small boats, one of them being the naphtha launch ABBIE. His business interests extended to Lake Superior also, and during the 1890s, he operated a steam propeller service (see WB No. 220) between Marquette and Houghton on the Keweenaw Peninsula 60 miles to the northwest, with the 94′ CITY OF NEW BALTIMORE and later the 114′2″ CITY OF MARQUETTE.

In 1892, Longyear was among the founders of the Huron Mountain Shooting and Fishing Club located on a vast and remote tract of primeval forest northwest of Big Bay, Michigan. Restricted to 100 members, the club, which continues today as the Huron Mountain Club, was so exclusive that even automobile pioneer Henry Ford had to wait 13 years for admittance.

Early in the 20th century, Longyear looked outside the United States for potential land and natural resources. He established the Arctic Coal Company to survey and mine coal deposits on Spitsbergen Island (now Svalbard) off northwestern Norway between 1905 and 1916. The company, headquartered in Boston, created Longyear City, population 500. The name survives today as Longyearbyen.

Longyear died in Brookline, Massachusetts, in 1922. —*GDJ*

companions, including his brother Howard, traveled to New York by railroad before the end of the month to take possession. Rather than shipping the boat by train to Marquette, he planned to run her up the Hudson River, through the Erie Canal, into the Great Lakes, and ultimately to her home port on the south shore of Lake Superior. After being launched in the Harlem River, ABBIE passed into the Hudson River and headed north. The journey ended unexpectedly in Albany, New York, however, when a telegram summoned Longyear to Ashland, Wisconsin, on important business. ABBIE completed her maiden voyage aboard a flatcar.

Lake Superior was still very much a wilderness at that time, and over the ensuing two summers Longyear cruised its rugged coastline and sugar-sand beaches within 50 miles of Marquette. Describing this period in his memoirs, he recalled "fishing for large speckled-trout on the reefs and wherever large broken rocks could be found on or near the shore." He and a group of cronies were eager to extend ABBIE's range with an expedition that would follow the shoreline west and north, and by 1889 they were ready. The long-awaited day came on Monday, July 22.

After rounding the head of the breakwater in Marquette harbor, ABBIE headed north, leaving to port the prominent yellow-brick, story-and-a-half, 40′-tall, square lighthouse with its fourth-order Fresnel lens. The crew was a patchwork of characters, including two physicians, an engineer, a Norwegian sailor, a banker, and Longyear. An accomplished writer despite his limited formal education, Longyear kept a detailed journal during the cruise. He also documented events with his Kodak camera.

As civilization slowly receded in ABBIE's wake, the crew set about loosely organizing themselves. One physician was appointed "surgeon" and the other "steward." The engineer naturally took responsibility for operating and maintaining the engine. The Norwegian sailor, called "Mox" by the crew, was assigned several

***Above*—Leaving Marquette, Michigan, the ABBIE expedition followed the shorelines of Lake Superior, reaching its climax with an eight-day circumnavigation of the Isle Royale archipelago. A tow from a steamer thence to the Keweenaw Peninsula hastened the return and spared the crew a long open-water crossing.**

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ABBIE was packed with gear for the month of voyaging, including two small sprit sails that could be set when the wind was favorable.

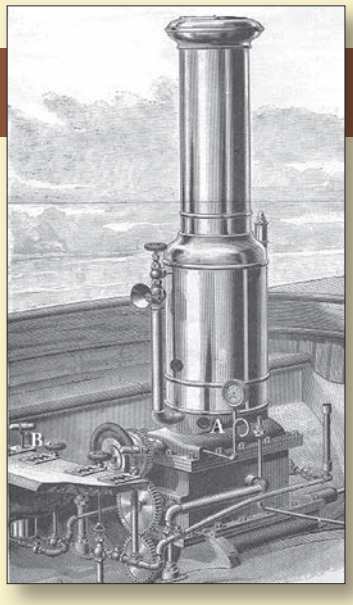
titles, among them cook, able seaman, and "crew of the captain's gig," the small skiff towed along as a means for reaching shore when the launch could not be beached. Longyear himself, called the "bushwhacker," was named "captain." The banker, whose "nautical experience had been confined to cruising in a flat-bottomed skiff on a millpond...was a problem until one of the crew in a moment of inspiration nominated him for chaplain, and he was immediately elected by acclamation. And a very good chaplain he made—not too severe in dealing with the erring mortals composing the crew...."

ABBIE pushed through the swells off Presque Isle, once a Native American settlement, "with its cliffs of banded red and white sandstone." Passing a cave, the captain suspended election proceedings to point out favored fishing spots among the black rocks, including where "the big one got away!" Others piped up with similar tales, causing the steward to suggest stowing fish stories for the duration. Approaching a beautiful, lush-green archipelago overlooked by Sugarloaf, the most easterly of the Huron Mountains, a famished crew consumed a meager meal prepared by the steward and Mox.

Cutting across Big Bay late that afternoon, the Huron Mountains, backlit by the sun, spilled purple shadows in diminishing hues into the valleys below, while peaks were flooded with radiant rays, illuminating "shades of green foliage...except where an occasional granite cliff rears its barren head above the sea of verdure." Spread before them was a magnificent panorama of natural beauty, which they savored with each passing day.

As ABBIE closed with the southwest corner of the bay, a settlement consisting of small log huts was visible on the shore. Among the fishermen who were there

Naphtha Launches



AUTHOR'S COLLECTION

At the base of the boiler, the labeled port "A" is the sight hole allowing inspection of the flame. To the left, "B" marks the hand air-pump used to pressurize the fuel tank.

Swedish immigrant Frank M. Ofeldt patented his revolutionary naphtha engine design in 1883, and two years later he was building the first boats to put them to use, signaling a new era in marine propulsion. The engines were a clear alternative to steam power for avocational boaters. At that time, the United States required every steam-driven watercraft, private or commercial, to have a licensed engineer aboard to avoid the common problem of boiler explosion. Naphtha engines didn't fall under the rule, so anyone for whom it was impractical to become licensed quickly adopted them. The engines were also much lighter: a 2-hp naphtha engine weighed only 200 lbs, compared to the 1,000 lbs of its steam-powered counterpart.

Ofeldt's design used a flash boiler mounted over an enclosed three-cylinder engine. The boiler vaporized naphtha that was hand-pumped from a fuel tank. The naphtha expanded in the engine valve chest to drive the pistons with greater power than steam could achieve at the same pressure. The small amount of vapor drawn off through an injector to feed the burner was the only expenditure of fuel, with the exhaust venting through the brass stack. The bulk of the naphtha circulated over and over through the vaporization and condensing phases, with exhaust gases flowing through water-cooled condenser tubes outside the hull, returning as liquid to the fuel tank.

Starting a naphtha engine was a straightforward process. Controls were mounted on a thwart forward of the engine. The operator used a hand pump to pressurize the fuel tank, forcing vapor into a circular burner under the boiler coils. The vapor was ignited with a match thrust through a touch-hole. Once the coils were sufficiently heated, a naphtha pump forced cold liquid naphtha into them, building pressure. As the pressure reached 10 to 15 lbs, an injector valve was opened to mix vapor with air to fuel the burner. At 20 lbs pressure, a hand-wheel was turned to open slide valves, driving the pistons and turning the propeller. The engine could be reversed by firmly twisting the hand-wheel—even at top speed. To stop, the operator closed the injector valve to extinguish the fire and secured the hand-wheel.

At the time these engines entered the market, naphtha, a by-product of petroleum distillation, was thrown away. Standard Oil Company, believing in the clear liquid's potential as a fuel, partially funded the start-up of the Gas Engine & Power Company in 1886 to manufacture naphtha engines and launches. By 1889, the

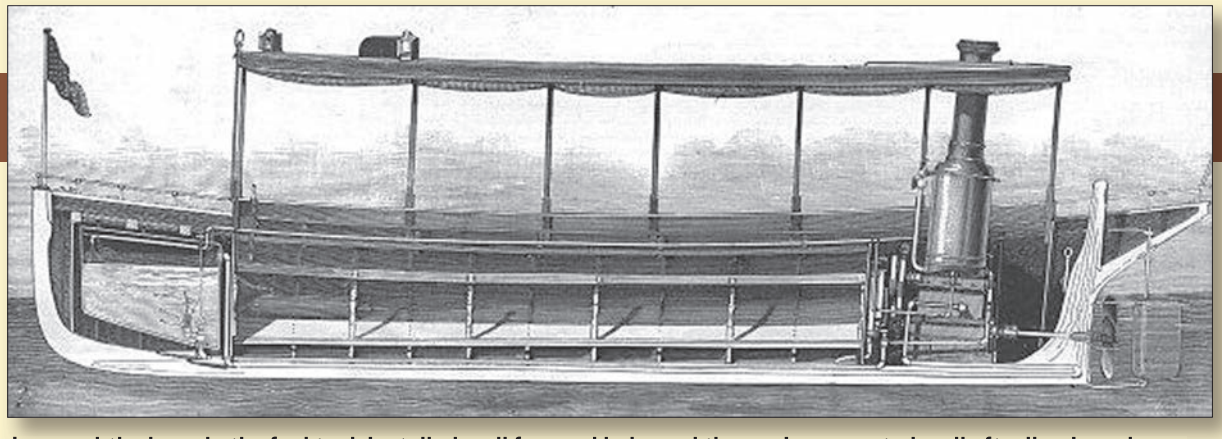
were several Indians, "looked at with much interest by some of the crew whose acquaintance with the fast-disappearing aborigines was limited," especially the engineer, who had never seen Indians before. After a brief respite on shore, ABBIE headed north again, seeking the low sand dunes at the mouth of the Pine River, where the group planned to set up camp for the night.

Upon reaching the Pine, the launch ran "into the center of the narrow, coffee-colored current flowing into the clear water of the lake...the engine checked down to sufficient speed for 'steerage-way' only." Although Longyear had been assured by fishermen at Big Bay that the Pine was deep enough for ABBIE, the captain had good reason to be cautious. Sandbars stretched across the river, and the launch grounded on one but sustained no damage. Rather than entering the river, the captain decided to anchor ABBIE offshore.

The crew set up camp on the upper part of a wide beach, "where the heavy seas of last autumn's gales had leveled it." The tent, blankets, canvas cots, oil cookstove, and food were ferried ashore in the skiff. The crew soon learned they were not alone. A fishing party from Houghton—sailing a Mackinaw boat—was camped farther upstream, and an Indian family traveling by bark canoe from L'Anse was in the vicinity, harvesting birchbark. Although scarce, traffic on the lake along the undeveloped shore included an occasional packet steamer trailing smoke from her stack and carrying freight and passengers between Duluth, Minnesota, and the lower Great Lakes.

The crew bedded down in the tent, with the exception of Mox, who slept soundly aboard ABBIE until 3 a.m., when "a swell, rolling in from the lake pitched the launch about." At 6 a.m., the others awoke to the strong aroma of ham sizzling on the cookstove, as Mox, now wide awake, prepared breakfast in the fresh morning air. During the meal, "the captain amused himself by taking kodak [sic] photographs of the members of the crew in unconscious attitudes." By 8:45 a.m., with the camp dismantled and gear stowed aboard ABBIE, the cruise continued westward.

To port, vertical cliffs, with red sandstone-carved arches and pillars, accented the rugged coastline between bronze beaches leading inland to virgin forests. To starboard, the vast lake—in its many moods, with shades of blue and gray, depending on cloud cover—reached to the far horizon. The crisp, clear, shoal waters near shore were often too inviting for the



AUTHOR'S COLLECTION

In a naphtha launch, the fuel tank installed well forward balanced the engine mounted well aft, allowing a large, open central cockpit. A pipe carried fuel from the tank to be vaporized and mixed with air to fuel the boiler. Unused naphtha was recondensed and returned to the fuel tank by a separate pipe.

company was building boats from 18′ to 75′ long, powered by engines of 1 to 16 hp to speeds of between 7 and 11 mph.

The designs of these sleek boats varied little. They had plumb stems, moderate deadrise amidships, moderate sheer, fantail sterns, and either lapstrake or carvel white cedar planking over hackmatack frames and white oak keels. Bench seats ran along each side. Small launches were open or had canopies with curtains, and sometimes they were fitted with a vertical tiller on the thwart forward of the engine or a tiller rope running under the coaming outboard of the seats. Some of the large models had cabins, often with a raised helm station, while others had steering wheels mounted on a forward bulkhead.

The lightweight engines, which were manufactured to have interchangeable parts, sat in brass-lined wells at the stern and had integral brass stacks, and the fuel tank was placed at the bow. This arrangement allowed for ample cockpit space in contrast to steam launches, in which the heavy engines and boilers needed to be placed amidships.

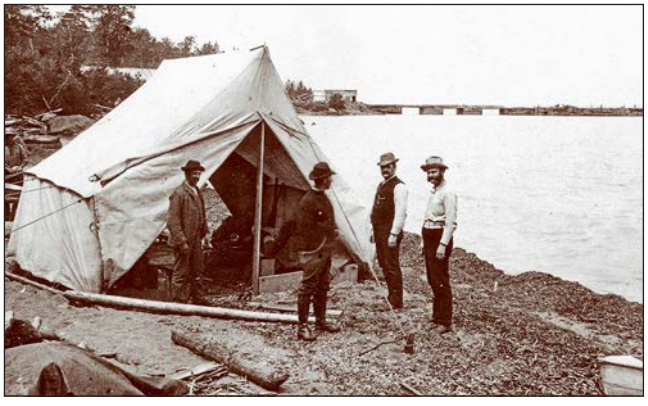
The new launches were a singular success. Gas Engine & Power built more than 4,000 in its first 10 years. The boats eventually reached ports throughout the United States and in Europe, South America, India, and as far away as Hawaii. They were popular as resort launches, and schooners and steam yachts frequently carried small naphtha tenders on davits.

Naphtha engines bridged the gap between steam engines and the introduction in 1900 of gasoline-powered motors, known initially as "explosive engines." The popularity of naphtha engines and launches, which were unable to compete with the power and convenience of boats with gasoline engines, faded early in the 20th century. *—GDJ*

fishermen aboard, who were eager "to stop and 'wet a line.'" Fishing, a favored avocation, was also a practical means of stocking the larder.

As the voyage continued to the west and north, "the ABBIEs," as they came to be known, encountered Mackinaw boats with Indian crews, among whom the launch and its brass stack elicited stares of surprise and wonder. Chippewa bands for three centuries had lived off the forests and the "Big-Sea-Water" celebrated in Henry Wadsworth Longfellow's *The Song of Hiawatha*, and they were reluctantly sharing nature's bounty and the lake that had once been theirs alone.

Conditions dictated the prevailing spirit of the crew. As ABBIE crossed the Keweenaw Peninsula via the Portage River, Portage Lake, and the Keweenaw ship canal, the "persistent buzzing songs of the first mosquitoes" intruded on a shoreside supper. Thick fog and heavy dew greeted the ABBIEs on some mornings, meaning they had to stow the tent aboard while it was still wet. On Superior's open waters southwest of the Keweenaw, black clouds announced the coming of a squall, and seas built as the crew struck sail, rigged the canvas cover over the cockpit, and donned foulweather gear,



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With few exceptions, the ABBIE voyagers spent nights ashore, as here at their Pine River tent encampment on July 23, their second night out.

even as sheets of rain swept over the launch. On wet days, the burner under the engine's boiler was the only dry spot in the boat. Despite avalanches of water, the little engine purred steadily along, with the blue-gas naphtha flame maintaining a gentle roar.

A fire ashore was an absolute necessity at day's end, to warm and cheer the weary mariners. The fire dried their tent canvas and their soaked clothing. Driftwood piled high on beaches—a gift of the previous autumn's gales—not only provided abundant fuel but also seating and places to hang gear to dry.

Lake Superior's storms were a constant threat, with conditions often shifting rapidly from dead calm to a violent tempest, followed by relative calm again. Cruising southwest of Ontonagon, Michigan, ABBIE was close in to shore when a strong wind, "a furious wild beast," roared out of the northwest, bringing with it "a purple darkness and an opaque sheet of descending water." Buckets of hail came next, causing a terrific "din and racket" with "an inspirational, grand cadence in it not at all unmusical." Twigs, leaves, and branches torn from trees filled the air near the beach, as the launch ran along in calm waters under the lee of a headland. A hundred yards farther out, "the lake was milky-white with foam and spray torn from the surging [seas] and hurled about in white sheets and jets often fifty feet in height." The violence ended within minutes, and in steady rain ABBIE and her crew steered to an anchorage, pitched the wet tent, and settled in with a large driftwood fire near its opening to play a card game called Crazy Pedro.

Exploring inland on foot or rowing the skiff up rivers revealed more of the pristine natural charm of the virtually untouched wilderness. The captain and his companions were captivated by cascading waterfalls, rushing rapids, high red-clay banks alternating with sand-rock cliffs, and deep ravines with small streams flowing into larger rivers. Up-close-and-personal encounters with wildlife—including gray wolves, which the crew did not consider dangerous—were common. The crew thought of the cuts, bruises, and strained muscles they suffered while stumbling over the rough terrain as small prices to pay for their experiences. Occasional skinny-dipping in crisp river waters was a refreshing treat and sharpened appetites.

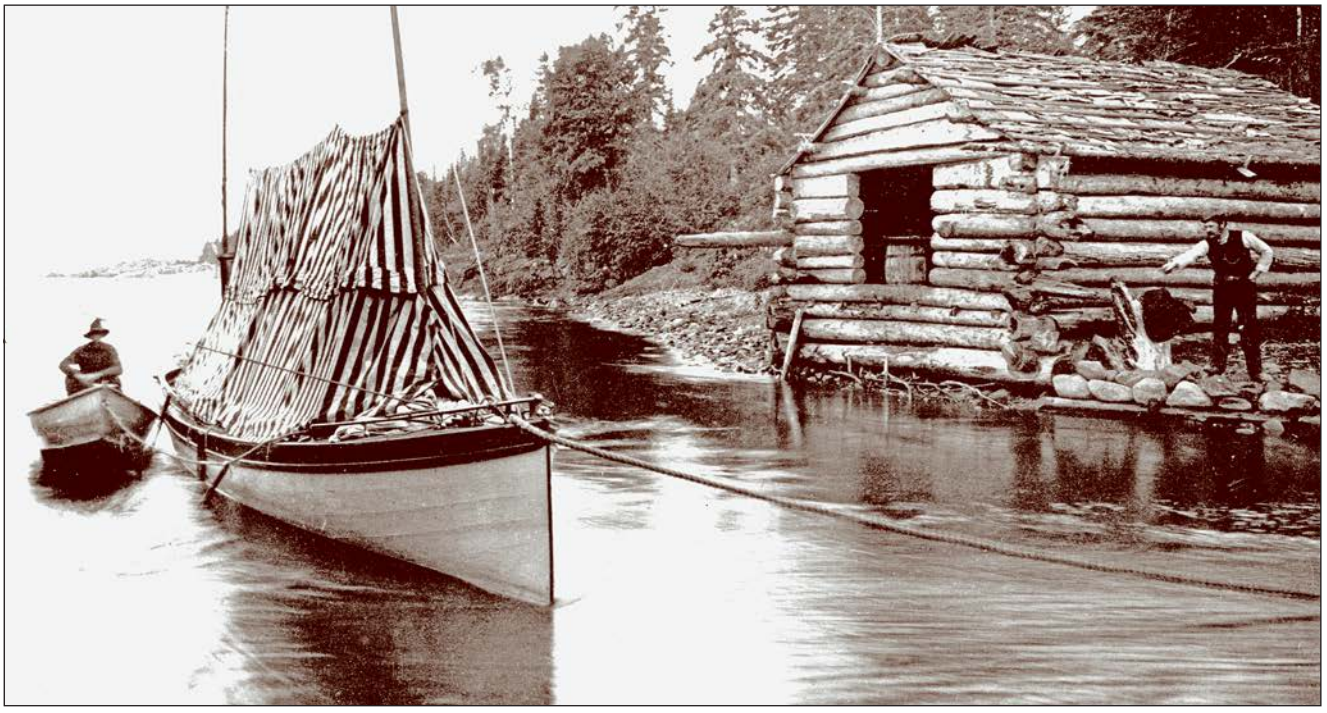
The elements also battered ABBIE. A mysterious hull leak was finally revealed when the launch was suspended with a block-and-tackle from a tree limb overhanging the Black River. Two large screws securing the stern bearing were at fault. One was broken and the other loosened, allowing the sleeve to shift position and the leak to form. With repairs made and the naphtha burner lit, the launch was soon under way, bound for the Wisconsin and Minnesota shores curving around the western end of Superior.

As ABBIE crossed the northern end of Chequamegon Bay on a northwesterly course for Bayfield, Wisconsin, "the seas encountered were high, steep, and running swiftly," and threatened to swamp the launch. ABBIE was nonplussed, "cleaving the green wall with her cutwater...in a shower of white spray." At Bayfield, the launch landed at the main steamer dock, allowing the crew to procure provisions and newspapers, as well as inquire about mail, and "to generally rub up against civilization again for an hour or two."

Duluth was the next port of call. Camping 12 miles south of the city at Dutchman's Creek, the ABBIEs were captivated after dark by "the electric lights of Duluth on the hillsides like an enormous torch-light parade... reflected in the gently undulating, glassy surface of the lake...a brilliant dancing, luminous track across the water, reaching almost to our feet." The next day

ABBIE, with her awning rigged, prepared to venture north through Portage River, a partly natural, partly dredged waterway bisecting the Keweenaw Peninsula.

MARQUETTE REGIONAL HISTORY CENTER



MARQUETTE REGIONAL HISTORY CENTER

On August 9, 1889, ABBIE, with her ruby-striped awning set up for foul weather, put into the Cross River, on Minnesota's rocky, and then quite remote, North Shore, adjacent to a fisherman's cabin.

ABBIE lay at a wharf in the city, loading supplies, while a crowd gathered to speculate about the unusual craft. "Where does she carry the fuel?" one mused. Another suggested, "It's a guv'ment boat!" A boy exclaimed to his pal, "Tommy, she's a grocery boat!" By late afternoon, the launch was under way along Minnesota's picturesque, rocky North Shore, with its lovely small bays and natural harbors.

Passing Grand Portage, once a major depot for fur traders and voyageurs, "the hills of Isle Royale slowly rose higher and higher, in azure billows" off ABBIE's port bow. Turning toward the island at Hat Point, the launch moved through smooth waters until encountering a southeast breeze, when "the foresail was raised and the exhilarating ride across the broad expanse of heaving water was heartily appreciated by the crew." Starting at Washington Island in the southwest and following a clockwise route for eight days, ABBIE circumnavigated the archipelago consisting of Isle Royale surrounded by over 450 smaller islands. Returning to Washington Harbor, ABBIE's inventory was in frightful shape, "a burned and dilapidated tent; mouldy bread; supplies nearly gone; naphtha getting low; the raiment and personal appearance of the crew very much the worse for wear."

No longer enthralled with roughing it, the crew loaded ABBIE's gear and skiff aboard the steamer A.B. TAYLOR, and with the launch in tow, the captain and his crew enjoyed a brief respite while en route south across the lake to Hancock, on the Keweenaw Peninsula's ship canal, only a two-day voyage from home. Mox elected to stay aboard ABBIE for the crossing and later "acknowledged that, after having sailed the world over, he had just had the wildest boat-ride of his life...." After replenishing the larder in nearby Houghton, the launch resumed her voyage, continuing through the ship canal and then turning east toward Marquette.

With seas running too briskly to chance a landing in Big Bay, the crew, now craving the comforts of home, bedded down for its final night aboard the launch. At 5:15 the following morning, ABBIE's crew started the dependable naphtha engine and raised the sails. The launch surged southeast, with the main and foresail full and the screw turning, driving ABBIE homeward. Leaving Lighthouse Point to starboard and then rounding the Marquette breakwater, ABBIE, "with sails set and colors flying, glided alongside and stopped at the landing from which she had been absent just thirty days."

In that time, the launch covered more than 700 miles. Writing later, Longyear recalled, "The trip was a notable achievement at that time and was considered reckless by many who were not accustomed to cruising. It was perfectly safe, or as safe as any boat on large bodies of water, and was thoroughly enjoyed by the party."

By the early 1900s, with the arrival of gasoline engines, naphtha launches like ABBIE had become relics, as had the earlier steam launches. But in her time, she shimmered in the sun, leaving an indelible mark on the region's maritime history as, in all likelihood, the first recreational powerboat on Lake Superior.

George Jepson is a frequent contributor to WoodenBoat *and* Small Boats. *He would like to thank Research Librarian Rosemary Michelin and Assistant Research Librarian Merideth Ruppert at Marquette (Michigan) Regional History Center. See www.marquettecohistory.org for more information.*

Riva Super Ariston No. 843 (launched in 1968) appears to have landed on this Lake Como beach for a picnic—an ill-advised maneuver, given the boat's inboard engine and its associated fixed shaft and propeller. The boat was actually sinking just moments before, after a gaping hole was ripped in her bottom. She'll soon enter the RAM shops, for repair.

Scenes from the Riva Clinic

Photographs by Henri Thibault
Captions by Gérald Guétat

Photographer Henri Thibault learned his craft on the job at the Paris-based sports-photography agency DPPI. He began there in 1986, working in the film-developing laboratory, and later worked as an archivist, in the business department, and as a photographer of racing cars, boats, and people. He founded the Agency's Sail & Boat department in 1988.

Today, Henri is an independent photographer reporting on shipyards, builders, and interesting people with nautical backgrounds. "With my cameras," he says, "I like to help readers discover what they otherwise might not see."

Here, Henri and journalist Gérald Guétat share highlights of restoring Riva runabouts at the legendary Revisione Assistenza Motoscafi (RAM) service facility in Sarnico, Italy, which specializes in the service, repair, and restoration of these boats. The images are of several different boats, but taken together they illustrate RAM's rigorous protocols for breathing new life into a RIVA. *—Eds*

Carlo Riva introduced the stylish mahogany runabouts that bear his name in 1953. His vision for this business included a repair facility in Monaco, built into the side of a mountain. Today, Carlo Riva's Boat Service Group operates from several locations—including the Lake Iseo facility in which the Ariston on the previous page has arrived for repairs.

This Super Florda (No. 712) was built in 1963. It is undergoing a total restoration, and will look and handle as new after several months and thousands of hours of work. The owner must be very attached to the boat, for he will have spent more than its market value on the restoration.

The Aquarama is the flagship model of Riva's now-discontinued line of wooden boats. Here, one of them receives a careful sanding before moving on to the spray booth for varnish.

Each boat spends many hours in this high-tech, dust-free chamber, where it receives 13 to 14 coats of sprayed-on varnish after having been given five brushed-on coats. Here we see a Super Ariston.

The engine of Riva Super Florida No. 712 is being lowered into the hull. The metal sheet that will lie beneath the engine is not an original part; it was fabricated during the boat's refurbishing, in order to bring the boat into compliance with strict anti-pollution regulations on some of Europe's Alpine lakes.

This Super Ariston, in RAM's special finishing room, receives new upholstery.

After restoration, each boat undergoes sea trials with a test crew consisting of two mechanics. Here we see an Aquarama.

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by John Burke

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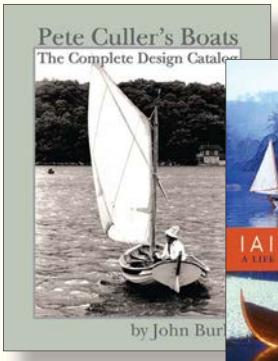

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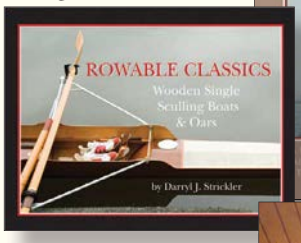

Windjammers Downeast

by Fred LeBlanc

A pictorial tribute to the boats of Penobscot Bay, which make their living carrying sight-seers and eco-tourists along the coast of Maine. Fred LeBlanc is a photographer who transforms his pictures into "photographic impressions" hand-painting each with a stylus for a handsome effect.

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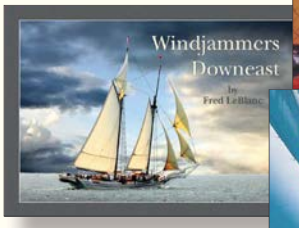

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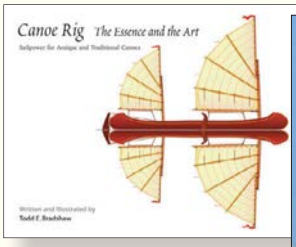

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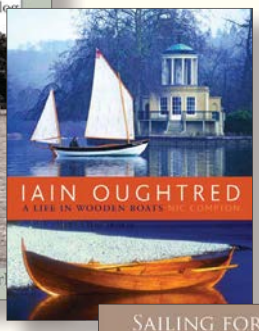

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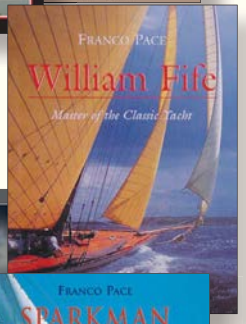

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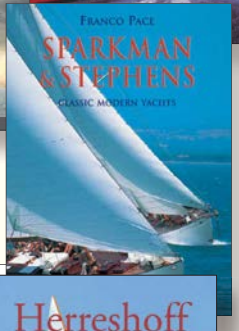

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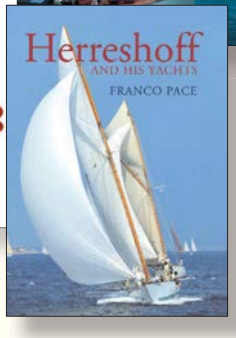

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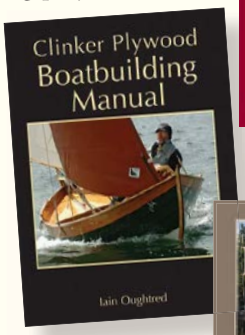

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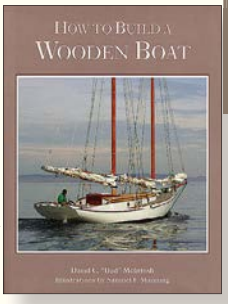

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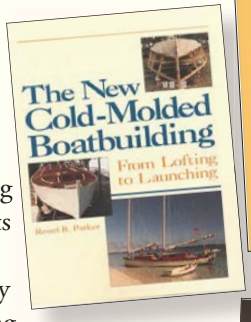

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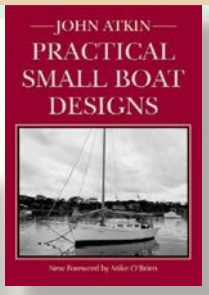

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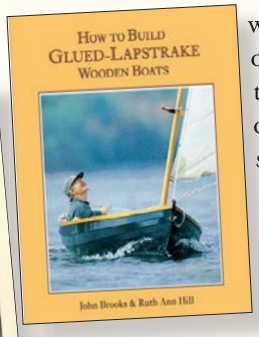

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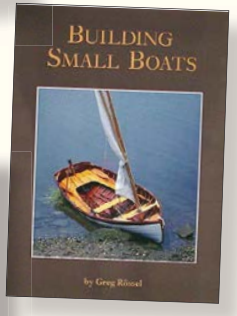

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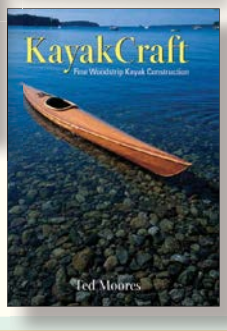

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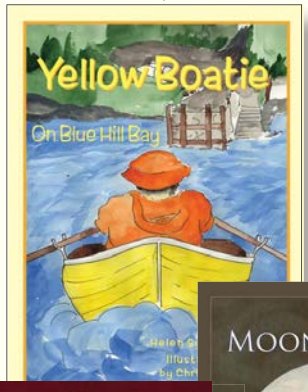

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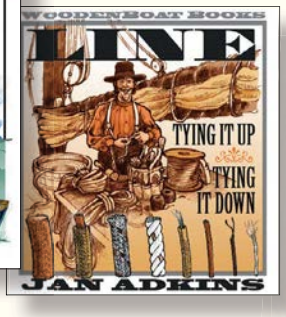

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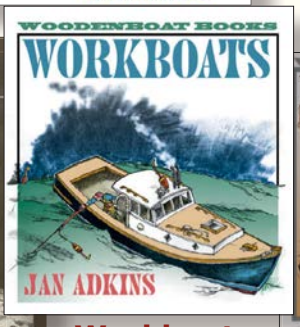

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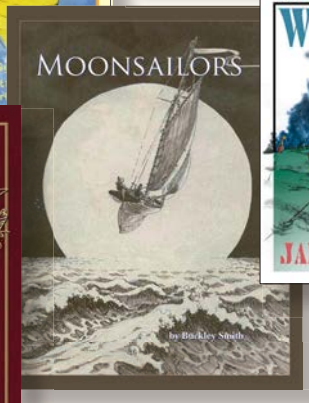

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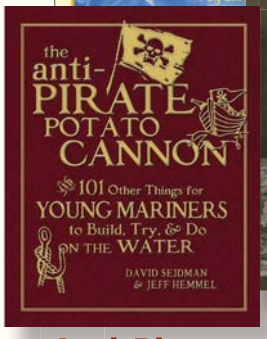

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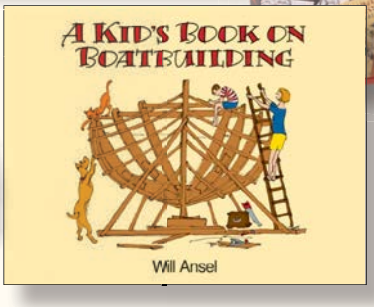

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D'Anna

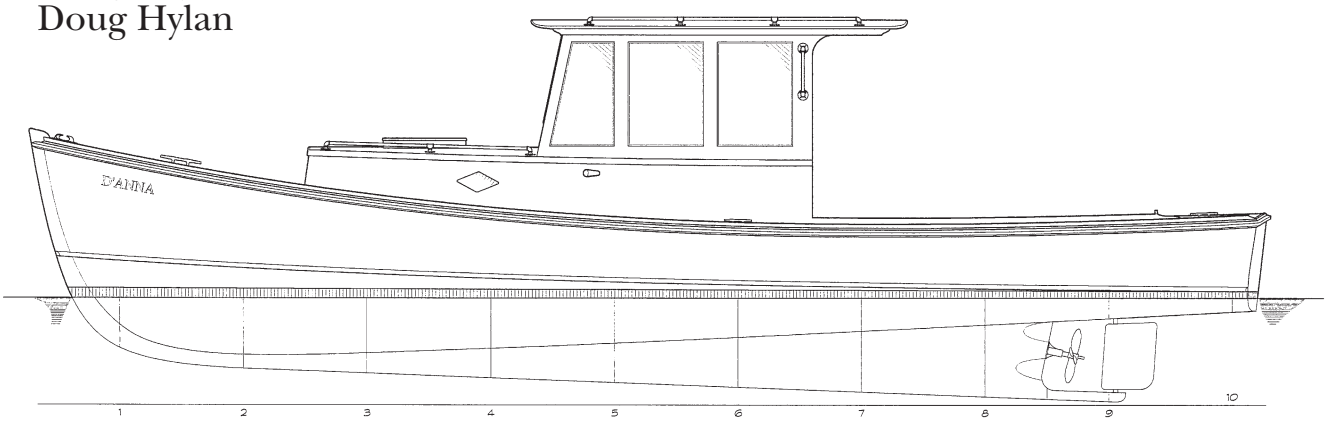
After a Beals Island lobsterboat

Commentary by
Mike O'Brien

Design by
Doug Hylan

Particulars

LOA	30′0″
LWL	28′9″
Beam	8′6″
Draft	2′6″
Displacement	6,300 lbs
Power	75 hp



This new design follows in the wake of the highly regarded Beals Island lobsterboats from the Downeast coast of Maine. Back in 2002 Doug Hylan's shop, on the shores of the Benjamin River, restored one of those old boats. Rechristened DIANA, the slender hull attracted favorable attention, and its efficient performance impressed the designer. The drawings for D'Anna, seen here, are the pleasant result.

Indeed these are striking hulls. The Beals Island boats tend to show strong sweeping sheerlines. Most all of them are skeg-built: that is, the external portion of the boat's backbone is separate from the planked-up part of the hull. Lobsterboats from farther west along the Maine coast often are built-down. The planked-up lower portions of their hulls become concave abaft amidships and form a hollow or "tuck."

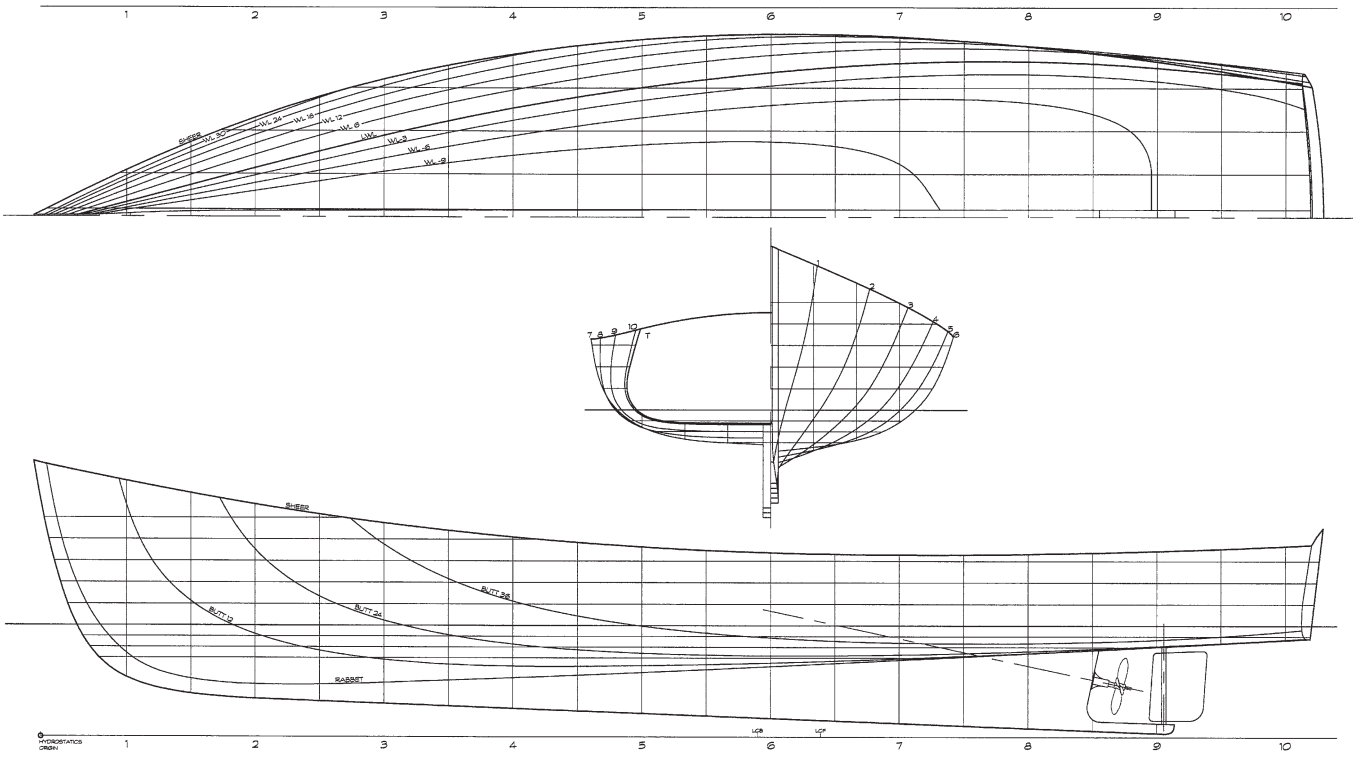
Proponents of skeg-built hulls point to somewhat simpler, lighter construction and perhaps higher potential speeds. Advocates of built-down boats sometimes claim greater strength for their hulls. As may be, this topic can generate lively discussion on the waterfront.

D'Anna will work as a pleasure boat. She's not meant to earn her living by hauling traps, and Hylan has drawn the plans accordingly. A lobsterman might want to install his boat's engine forward of the bulkhead in order to clear the cockpit for business. In addition, the workboats often don't hold much fuel, their crews preferring to top-up when they deliver their catch at the end of each day. Because yachtsmen want adequate room in (and easy access to) the cabin and would rather pay fewer visits to the fuel dock, D'Anna carries her center of buoyancy slightly farther aft. Thus her engine can sit farther aft than the engines of her working cousins, and a large (heavy-when-full) fuel tank can hide below the after deck.

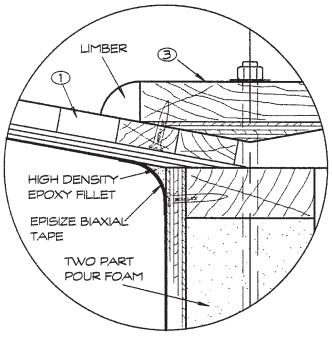
Other modifications from the original boat include increased breadth of 8′6″ (the limit for trailering without a permit). Even at this beam, D'Anna will be relatively narrower than many of her contemporaries. Hylan explains that this should allow for "easier powering above theoretical hull speed." With her skeg-built hull permitting good water flow to the propeller, and given her virtually straight run, the designer forecasts that the specified 75-hp diesel engine will produce speeds up to 14 knots.

Slightly increased freeboard permits a self-draining cockpit. This will be welcome, as pleasure boats usually aren't boarded and checked out every day like their working cousins. When a particularly wet cold front moves through at 3:00 a.m. and finds D'Anna sitting untended at her mooring, we need not worry about the condition of a slightly-too-old battery or a semi-reliable bilge pump.

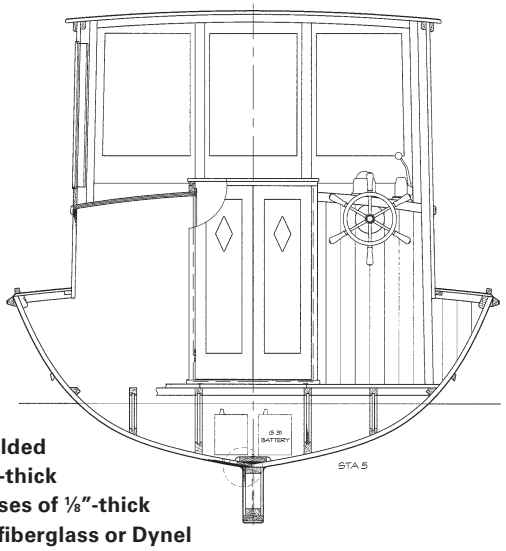
Hylan has drawn a common-sense layout for D'Anna. The huge (by pleasure-boat standards) cockpit measures more than 13′ in length from its after coaming to the main bulkhead. The space is clear, save for the engine box…and some of us might consider that box to be more convenience than nuisance. It will make for a nice seat and, when



D'Anna's skeg-built hull (above) closely follows the highly regarded Beals Island lobsterboats. Designer Doug Hylan has moved the center of buoyancy slightly aft to allow for a more convenient engine location and heavier fuel load. A 75-hp diesel engine should push this efficient hull at speeds up to 14 knots.



DETAIL AT KEEL/SKEG



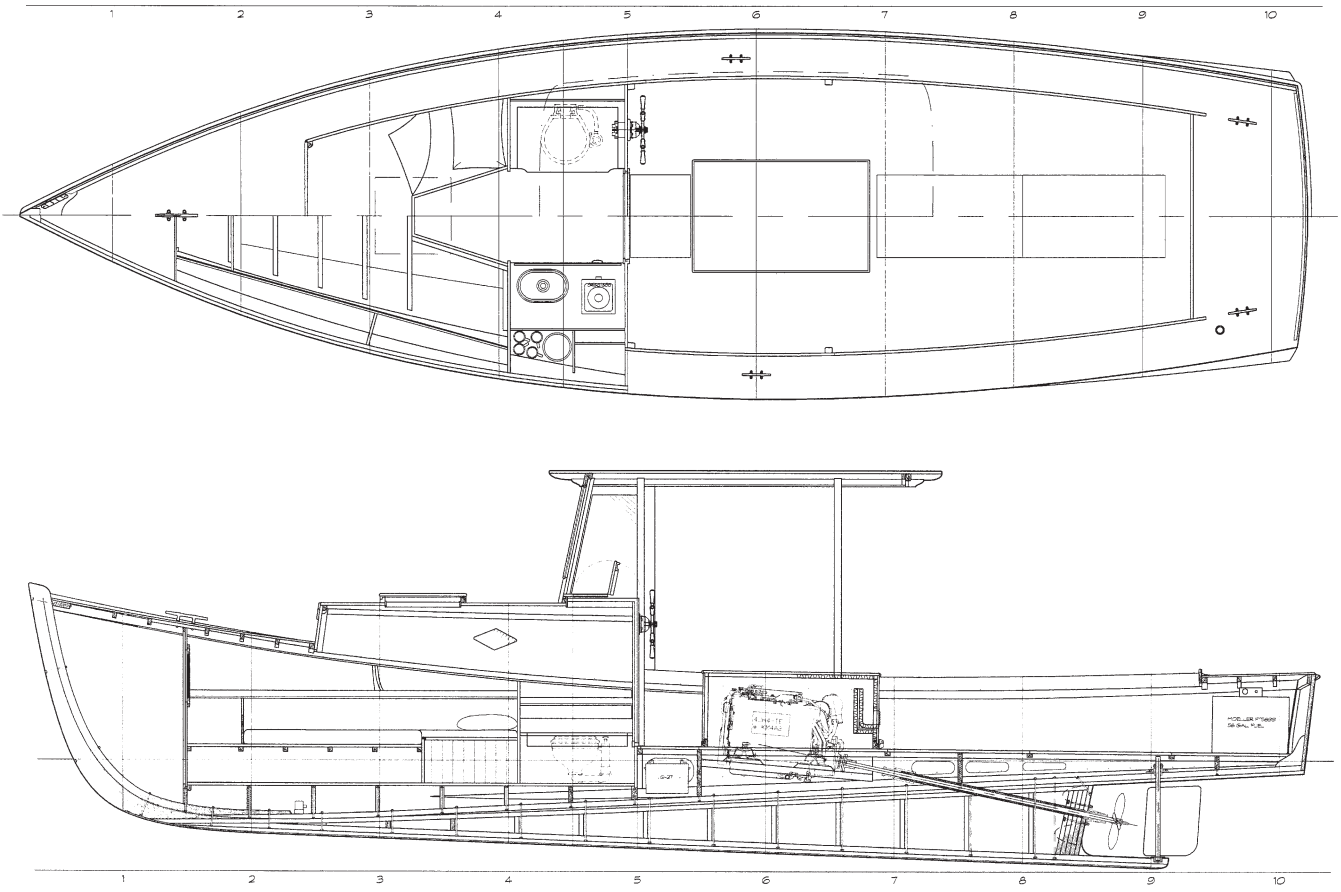
The strong and watertight cold-molded hull consists of an inner layer of ⅝"-thick cedar strips followed by three courses of ⅛"-thick cedar veneer, on the diagonal, and fiberglass or Dynel cloth set in epoxy. A hollow box, filled with poured foam, forms the skeg. Note that bronze screws supplement the glue at critical points.

raised, will offer easy well-lighted access to the engine. A well-glazed shelter protects the forward 7′ of the cockpit. The designer suggests we employ ¼″ laminated safety glass for the windshield. For all other windows, ¼″ acrylic or polycarbonate will result in "desirable weight savings." Builders south of the Mason-Dixon Line might consider replacing, or complementing, this solid shelter with a Chesapeake-style canvas sunshade to run the full length of the cockpit.

As we step down through the companionway, we'll find a workable galley to our left and a seat/head to our right. A V-berth rests up forward. No surprises here. This is all quite traditional for small boats, both power and sail. If we're tempted by thoughts of possible modifications, such as dinettes and articulating furniture, perhaps we should recall that traditional tends to become traditional because it works well.

Old DIANA was built plank-on-frame. Hylan intends that D'Anna should go together in cold-molded fashion. In fact, either boat might be built using either method. The designer is experienced with both techniques, and his Construction Specifications for the new design seem well worth reading even if we never build this particular boat. His instructions give helpful advice that we can apply to other projects, and they address possible causes of failure for any cold-molded structure.

The Specifications begin with a description and a warning: "Cold-molded construction is predicated on the idea that all pieces of wood



A huge (13′-long) self-bailing cockpit offers plenty of room for a good day on the water. The simple and traditional layout of D'Anna's cabin provides cozy accommodations for a couple in the evening or on a rainy afternoon.

must be kept dry, or if moisture does enter, the swelling of the wood must not destroy the glue joints. All pieces of wood are best kept thin, as large pieces can easily overpower the strength of even the best-glued joint if they are allowed to moisture cycle. Coatings designed to prevent entry of moisture are beneficial, but cannot be counted on to guarantee that all pieces of a structure will remain dry forever when that structure will be immersed in water for extended periods."

Hylan goes on to explain that metal fastenings can "access strength deep within a piece of wood, whereas glued joints can only access what is available immediately adjacent to the glue line." He specifies bronze fastenings for critical points. If we choose to employ stainless steel because of cost or availability, he suggests 316 alloy as "lower grades will corrode…."

We'll build D'Anna's hull upside down on molds spaced at every half-station (that is, 18″ apart). The first, or inner, layer will consist of ⅝″-thick white cedar strips or equivalent. Contrary to a contemporary trend, he suggests: "There is no point in applying cove-and-bead molding to the edges—it does no good and wastes stock. Any edge gaps in this layer (particularly at the turn of the bilge aft) may be troweled full of lightweight epoxy mixture." After the strips have been applied and faired, we'll lay three layers of ⅛″-thick western red cedar veneer on the diagonal. Ten-ounce fiberglass or Dynel cloth set in epoxy will finish the job. If we wish, the synthetic cloth can be replaced with an outer layer of mahogany, or some such, spiled and laid longitudinally.

For propulsion, the plans specify a Yanmar 4JH4-TE diesel, which puts out 75 hp. Hylan would seem not to mind if we were to make an appropriate substitution. He does caution that engine selection should be made before construction begins, so as to ensure that space between the two inboard stringers will be sufficient to accept the power plant of our choice.

Here we have an efficient, easy-running, and good-looking boat that displays a strong working heritage. Certainly the ratio of cockpit space to cabin volume is greater than we'll find aboard most pleasure craft of her size. If we give the matter honest thought, we might find that these proportions agree quite well with how we'll actually use the boat.

Mike O'Brien is boat design editor for WoodenBoat.

Plans and finished boats from D.N. Hylan & Associates, Inc., 53 Benjamin River Dr., Brooklin, ME 04616; 207–359–9807; Doug@DHylanBoats.com.

Nails: Plain and Fancy

by Richard Jagels

Looking back over more than 30 years' worth of my column, I realized that I had devoted little space to fastenings—and, in particular, I had never covered the simplest and speediest of all: nails. Before delving into the topic, I thought I might not have enough material for a full column, but as I probed deeper, I realized I was wrong.

One big surprise was a paper published in 1951 that, in my opinion, is the best single document on the subject. "Nails and Screws in Wood Assembly and Construction," by George Stern, is a Virginia Polytechnic Institute, Wood Research Laboratory publication (180, No. 3) that covers plain-shank nails and also annular and helically threaded nails, which were just being developed at the time. Some of what follows is extracted from that paper, available online at unitload.vt.edu/research/woodbulletin-3.pdf, and from the *Wood Handbook*.

Smooth-Shank Nails

The holding power of nails is created by friction between the nail's surface and fibers in the wood. (Dense woods apply greater side pressure than softer woods.) The greater the surface area of a nail's shank—including its circumference and its length—the larger its frictional area. Maximum withdrawal resistance of common wire nails driven into side grain of seasoned or unseasoned wood is given by the formula:

$p = 54.12\ G^{5/2}\ DL$ (metric)
$p = 7.85\ G^{5/2}\ DL$ (inch-pound)

[p = maximum load, D = nail diameter (mm or inches), L = depth (mm or inches) of penetration, and G = specific gravity of wood]

The accompanying table (adapted from Forest Service Technical Report No. 236, 1958) compares withdrawal resistance of a same-sized nail for common hardwoods and softwoods. For ease of understanding, I have converted the data to relative values. Thus, northern white cedar (the weakest) is 1.00x while hickory, with almost eight times more holding power, is 7.90x.

Relative Withdrawal Resistance of Common Wire Nails in Woods of Differing Densities

SOFTWOODS		HARDWOODS	
Northern white cedar	1.00×	Basswood and Aspen	1.68×
Western red cedar	1.15×	Yellow poplar	2.02×
Eastern white pine	1.34×	American elm	3.71×
Douglas-fir (interior)	2.37×	Sugar maple	6.40×
Douglas-fir (coast)	3.20×	White ash	7.07×
Bald cypress	2.68×	Red oak	5.88×
Western larch	4.53×	White oak	7.07×
Southern yellow pine	4.53×	Hickory	7.90×

For softwoods, increasing a nail's diameter or depth of penetration can at least partly offset the disadvantages of the wood's low density. Since most low-density woods are the least likely to split, this is a practical solution in many cases. Coatings can also improve nail-holding capacity. So-called cement-coated nails, which are actually resin-coated, increase withdrawal resistance in softwoods but generally have little effect in hardwoods since most of the coating comes off as the nail is driven. Zinc coating generally improves holding capacity in all woods, but only if evenly applied. Irregularities in coating may reduce a nail's holding capacity below that of an uncoated nail. By contrast, galvanizing generally *reduces* holding power for grooved nails, compared to non-galvanized.

Nails driven into unseasoned wood have about the same withdrawal resistance as those driven into seasoned wood *if* the nails are immediately withdrawn. However, as unseasoned wood dries, or if seasoned wood undergoes wet/dry cycling—as in boats—withdrawal resistance can be reduced by as much as 75 percent. Other cyclic loads, such as vibration, can relax wood fibers with time, reducing nail-holding capacity.

The withdrawal resistance of nails driven into end grain of softwoods is 25 percent to 50 percent less than if they are driven perpendicular to the grain. But as wood density increases, this disparity decreases; in very dense woods, the difference is barely measurable.

Grooved- or Deformed-Shank Nails

In order to increase nail-holding capacity to levels closer to that achieved with screws, manufacturers have experimented with various sculpted shank forms. Early attempts simply added "barbs" along the shank, but laboratory tests revealed no improvement over plain-shank nails, probably because the barbs decreased the contact area between nail shank and the wood. By the 1950s, companies were marketing nails with annular threads, or rings, and also helical, or screw, threads.

The annular ring type is less prone to creep but may have reduced contact area between the nail's shank and the wood due to greater fiber distortion when driven home. Helical-thread nails cause less fiber damage but are more prone to creep under repetitive oscillating loading. Both annular and spirally grooved nails are particularly useful in situations of fluctuating moisture content in wood—a situation common to boat construction. These nails do not undergo the dramatic withdrawal resistance reduction seen with smooth-shank nails. In fact, two studies showed an increase in withdrawal strength of threaded nails driven into green lumber as the lumber dried.

Shape of Grooves

Manufacturers offer an array of shapes and depths of annular and spiral grooves in threaded-shank nails. In the 1951 report, Stern noted that

"thread design is of prime importance in nail efficiency." For helical threads, he favored a flat thread "root" and a sharp "crest," arguing that this profile sliced through the wood, causing less fiber damage and increasing friction. By contrast, for ring-nails he favored a rounded thread root and double crest, a combination that presumably increased frictional area. The Independent Nail and Packing Co., founded in 1915 and the originator of threaded-shank nails, is still in business; see www.IndependentNailCo.com.

I have examined several helical- and annular-grooved nails that I own and have yet to see any that adopted Stern's precise design criteria. All of my nails have round roots and single crests. A 2001 study concluded that "current general nail classifications are not sufficient in defining the critical thread characteristics that influence withdrawal strength, such as thread length, thread crest diameter, and root diameter."[1]

Many ring-shank nails have a smooth shank for a certain distance below the nail head. The length of the smooth shank should equal or slightly exceed the thickness of the board to be held down. The design enhances draw-down and inhibits the loosening of the nail's hold.

What about corrosion-resistant grooved nails? Helical-thread nails are common in galvanized form but seem to be rare in stainless steel or silicon bronze. For boatbuilding, annular-shank nails, which are commonly available in copper, silicon bronze, and stainless steel, are superior because they resist withdrawal under oscillating wood-moisture conditions better than most helical-shank nails.

What about traditional "boat nails," the tapered, square-shank nails, usually galvanized, that are similar to old-style cut nails? I could not find any testing information, but because they are thick and tapered, and some have barbed edges, the holding power should be greater than a common wire nail.

For many boatbuilding uses, screws are the best option. But grooved nails can often be adequate, and annular-ring nails may be less prone to "back out" creep under certain dynamic loading. One problem, however, is that although some threaded-nail standardization has been established, for example in the use of tempering for greater strength, thread design continues to be variable. Trying different brands may be advisable before starting a new boat project.

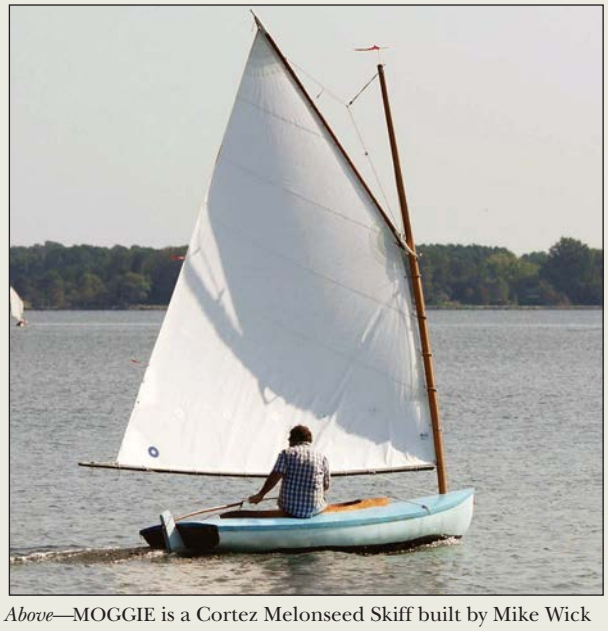
Dr. Richard Jagels is an emeritus professor of forest biology at the University of Maine, Orono. Please send correspondence to Dr. Jagels by mail to the care of WoodenBoat, or via email to Assistant Editor Robin Jettinghoff, robin@woodenboat.com.

[1] Rammer, D.R., S.G. Winistorfor, and D.A. Bender. 2001. "Withdrawal Strength of Threaded Nails," *Journal of Structural Engineering*, April: 442–449.

Edited by Robin Jettinghoff

These pages are dedicated to sharing news of recently launched new boats and "relaunched" (that is, restored or substantially rebuilt) craft. Please send color photographs of your projects to: Launchings, WoodenBoat, P.O. Box 78, Brooklin, ME 04616, or e-mail us at launchings@woodenboat.com.

Include the following information: (1) length on deck; (2) beam; (3) type, class, or rig; (4) boat's name; (5) names and contact information (include e-mail or phone) of designer, builder, photographer, and owner; (6) port or place of intended use; (7) date of launching (should be within the past year); (8) brief description of construction or restoration.



ANDY SLAVINSKAS

Above—MOGGIE is a Cortez Melonseed Skiff built by Mike Wick and designed by Roger Allen of Buffalo, New York. At 15′6″ and 5′ beam, MOGGIE is 10 percent larger than Howard I. Chapelle's version of this duckboat. Mike cold-molded two layers of 3mm okoume over a mold created from a bare hull built by David Lucas of Bradenton, Florida. Plans are available from Roger Allen, rbaboats@hotmail.com.

Below—After ordering plans for Mark Murray's Sea Hoss Skiff and Tom Hill's Long Point Skiff, Wayne Mueller modified those designs to develop BLUE BIRD, a skiff for recreational boating and fishing on Michigan's lakes. BLUE BIRD, 17′6″× 7′, has meranti and sapele marine plywood on sawn elm frames. Mueller is grateful to Harry Bryan and Greg Rössel for their assistance with this construction.

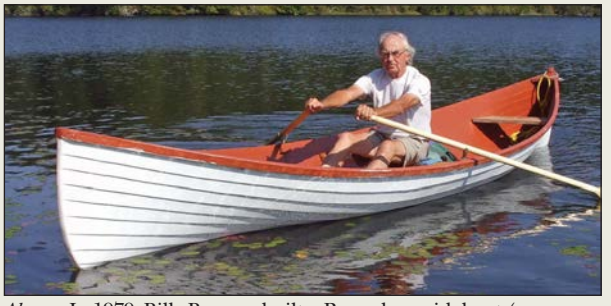
MARYANN MUELLER

Below—DELPHI is a 19′5″× 7′10″ Clark Craft Open Fisherman powered by a 90-hp Yamaha. Ralph Villars built the hull from plywood, epoxy, and fiberglass cloth on pine frames. He cruises DELPHI in the waters around New Orleans. Plans for the Flareline 20 are available from Clark Craft, www.clarkcraft.com.

GLENDA VILLARS

HOLLIS ANDERSON

Left—Ejler Hjorth-Westh of Elk, California and six friends built this 22′× 5′ Pacific Dory over three weeks. Starting with the stem, stern, and 'midships measurements of a Chamberlain gunning dory, he built the boat right-side up, holding these points but otherwise building by eye, allowing the plywood to define the hull shape. The oak frames were installed after the planking. ELLEN belongs to Hollis Anderson, who'll row her on California's rivers, lakes, and bays. Contact Hjorth-Westh at ejler@mcn.org.



KAKI BURRUSS

Above—In 1979, Billy Burruss built a Rangeley guideboat (see page 38) from John Gardner's *Building Classic Small Craft*. In 2011, he used those molds again to build WEYMOO (18′4″ × 4′3″) of marine plywood. This time he followed Gardner's suggestion to build a double-ender by duplicating the bow stations, and eliminated the problem of twisting that plywood around a Rangeley's wineglass transom. Billy and his grandchildren row WEYMOO in Oregon.

LORI MENKE

Above—Following Phil Bolger's plans along with instructions in Dynamite Payson's book *Build the Instant Catboat*, Doug Stults spent 14 years building the 12′3″ SOJOURNER. Doug modified the design by installing flotation chambers, adding two small cabinets and shelves, and making the transom and interior frames twice as thick as called for. Payson's book is available from The WoodenBoat Store, www.woodenboatstore.com.

JEFF HOVIS

Above—Don Witherspoon of Hernando, Florida, started building a 16′ Glen-L Malahini motorboat in 2006, but died a year later. When Jeff Hovis told his father he was going to buy a half-built wooden boat, his father asked if he'd been kicked in the head. Jeff bought Don's boat in 2011, finished it off, and launched the mahogany-plywood-on-oak runabout as KICKED IN THE HEAD in the fall. Plans are available at www.glen-l.com.

Below—Dave Reynell and his family enjoy paddling around the Knysna Estuary in South Africa in his Chesapeake 16 kayak, LOA 15′9″, beam 2′. Built from plans, the project took him 185 hours. Plans and kits are available from Chesapeake Light Craft, www.clcboats.com.

DAVE REYNELL

Below—Fairlie Restorations launched the new sloop FAIRLIE, the first Fairlie 55, in August 2011. This Paul Spooner design, at 55′ × 11′6″, will race on the European yacht circuit. Her planking is ¾″ Douglas-fir strips, laid fore-and-aft, followed by three layers of mahogany, two ⅛″ layers on opposing diagonals, and one ¼″ layer fore-and-aft. She carries 1,260 sq ft of sail. For more information, see www.fairlieyachts.com.

WATERLINE MEDIA

ERIC OLSON

Above—John Gardner modified the lines of a boat that appeared in an October 1946 article by L. Francis Herreshoff in *The Rudder* and published them in *Building Classic Small Craft*, from which Rick Foote of Beverly, Massachusetts, built 17′ MAGGIE O III for Eric Olson. MAGGIE O's okoume plywood planking is copper riveted to her oak frames. Eric rows her daily on the North Shore of Massachusetts.

JAMEY SUBER

Above—Jamey Suber built this 15′ × 1′8″ pirogue as a Christmas present for his one-year-old son, Trent. Jamey then served in Operation Iraqi Freedom for a year. Father and son launched TRENT'S TUG upon his return last Christmas. Jamey's friend, Brad Rutherford, was of great help with the design. The hull is of fir plywood with pine trim, with seats of Costa Rican zebrawood. Contact Jamey at jsuber8@yahoo.com.

Below—Sticking generally to Ted Brewer's design (www.tedbrewer.com) for this 21′6″ Cape Cod Catboat, Guy and Sylvia Marlow spent seven summers in France building BAGOR. They covered the marine plywood planks and sapele frames with epoxy, and sealed the deck with epoxy over Dynel cloth. The Marlows credit Ted with much help over the Internet. They plan to sail BAGOR in the waters of Brittany, France.

SYLVIA MARLOW

Below—Following a set of lines that Dave Carnell took from an original Simmons Sea Skiff, Dan Green built CAST AWAY with okoume plywood over Douglas-fir frames. Keel and rails are made from oak. Dan exhibited this boat in last year's WoodenBoat Show. He plans to take CAST AWAY on fly-fishing and family trips from the Chesapeake to Maine. Plans are available at www.capefearmuseum.com.

DAN GREEN

Below—Ian Watt of Ian Joseph Boatworks in Orland, Maine, just launched this 15′1″ skerrie, INISH BEG, designed by Iain Oughtred. INISH BEG has okoume plywood planking with mahogany gunwales and trim. Finished boats can be had from Ian Watt at www.ianjosephboatworks.com. Plans are available from The WoodenBoat Store, www.woodenboatstore.com.

LAURA KOZZA

JUSTIN GUIDO

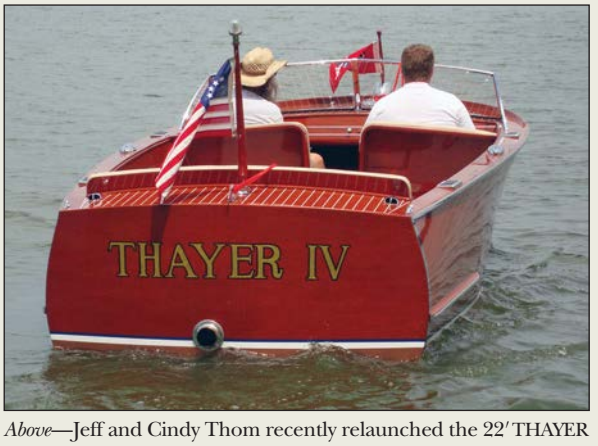
Above—After reading about CRUSADER, a 1932 Fishers Island 23, (34′ × 7′ 9″, Hull No. 1225), in "Save a Classic" (see WB No. 196), John Hutchison bought her and started a three-year reconstruction. With guidance from MP&G of Mystic, Connecticut, and Darling Boatworks of Charlotte, Vermont, Hutchison replaced all her oak with wood from his own trees, and replanked her with Alaska yellow cedar.

Below—Bob Hersh of PrimeTime Yachts of Newport Beach, California, relaunched EUPHRATES, a 1949, 40′ Deluxe Sedan Cruiser, built by Matthews Boat Company of Port Clinton, Ohio. Larson's Shipyard, also of Newport Beach, started work after the previous owner had spent nine years restoring the boat but was unable to finish. The work included new interior, wiring and plumbing, rebuilding the transom, and refinishing the hull exterior.

DICK STRAND

FRED WILSON, JR.

Left—In 1958, Fred Wilson, Sr. built this 18′ skin-on-frame kayak for his son. The boat is based on SEAL that appeared in a 1957 publication by *The Rudder*, *How to Build 20 Boats*. That son, Fred Jr., rebuilt THE KAYAK in 1980 for his own son's enjoyment. Recently, Fred Jr. did another refit, which included a new Dacron skin. Fred Jr. relaunched the boat in Longmont, Colorado, where his grandson now enjoys it.



CINDY THOM

Above—Jeff and Cindy Thom recently relaunched the 22′ THAYER IV, one of the boats driven by Henry Fonda and Katherine Hepburn in the 1981 movie *On Golden Pond*, which generated much interest in antique runabouts. Sunrise River Boatworks of Forest Lake, Minnesota, completed the extensive restoration of this 1950 Chris-Craft Sportsman Runabout (Hull U22-1802). Jeff and Cindy cruise THAYER IV on Minnesota's many lakes.

Hints for taking good photos of your boat:

1. Please shoot to the highest resolution and largest size possible. Send no more than five unretouched images on a CD, and include rough prints of all images. We also accept transparencies and high-quality prints.
2. Clean the boat. Stow fenders and extraneous gear below. Properly ship or stow oars, and give the sails a good harbor furl if you're at anchor.
3. Schedule the photo session for early, or late, in the day to take advantage of low-angle sunlight. Avoid shooting at high noon and on overcast days.
4. Be certain that the horizon appears level in your viewfinder.
5. Keep the background simple and/or scenic. On a flat page, objects in the middle distance can appear to become part of your boat. Take care that it doesn't sprout trees, flagpoles, smokestacks, or additional masts and crew members.
6. Take many photos, and send us several. Include some action shots and some of the boat at rest. For a few of the pictures, turn the camera on its side to create a vertical format.

We enjoy learning of your work—it affirms the vitality of the wooden boat community. Unfortunately, a lack of space prevents our publishing all the material submitted. If you wish to have your photos returned, please include appropriate postage.

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Dorade

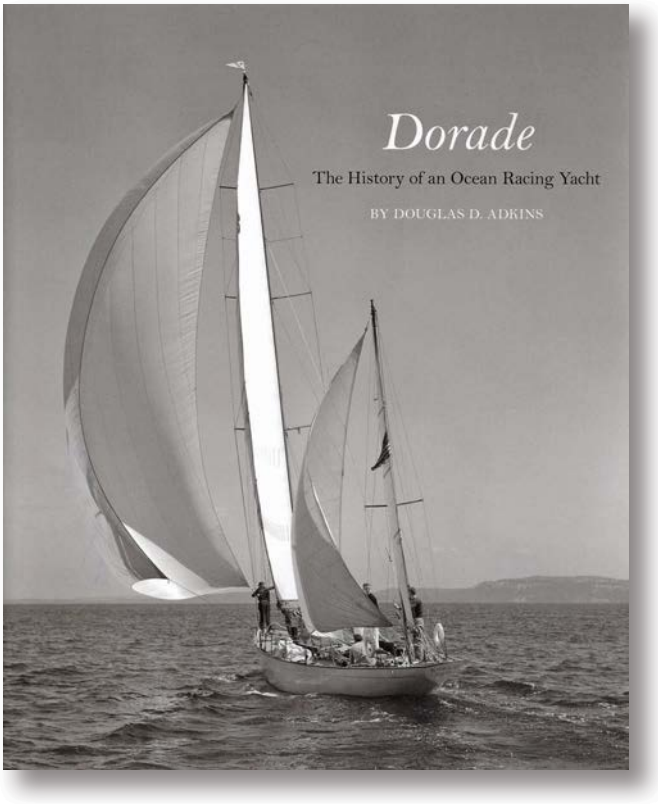
DORADE: The History of an Ocean Racing Yacht, by Douglas D. Adkins. David R. Godine, Publisher, 15 Court Square, Suite 320, Boston, MA 02108–4715. 240 pp., $65. *Available from The WoodenBoat Store.*

Reviewed by Bob Scott

To learn what yacht designers of the early 1930s thought about Olin Stephens and his legendary yawl DORADE, one could not do better than turn to Uffa Fox (see WB Nos. 221–224), the breakthrough British boat designer, racer, and critic. He described DORADE as "perfection of every detail [and] fast beyond all doubt, all possible doubt whatever."

One also does not have to read far to know that a lot of love went into the boat and into Douglas Adkins's history of that boat. Olin and his younger brother, Rod ("the real seaman," in Olin's words), started their obsession with sailboats beginning at about age 10 during a visit to Cape Cod. Adkins writes, "they sailed, raced and hitched rides as crew…their enthusiasm, commitment and grace…in the sailing fraternity of Long Island Sound…laid the groundwork for DORADE." Olin built his "foundation of design" with influence of a chance sail offered to him and Rod by Clinton Crane and Sherman Hoyt on a new Six-Meter. Before college Olin began drawing his first Six-Meter. Rod rode his bicycle to work at the Nevins Yard, where both young men saw great yachts being built and met those involved in their design and construction. Drake Sparkman, a 29-year-old New York yacht broker, brought Olin into his firm, which was soon to become Sparkman & Stephens.

Roderick Sr.'s faith in his two sons was demonstrated early by commissioning a family yacht to be designed by



Olin and managed in its construction by Rod. Built by the Minneford Yard on City Island near Manhattan, DORADE was launched in the beginning of the Depression. Quickly designed and built, she had her problems, with two feet more waterline than intended, an over-sparred and overcanvased sail plan, and awkward bulwarks. She did not win her first major contest, the 1930 Bermuda Race, which Olin later blamed on his poor navigation rather than speed. At age 95, Olin reminisced about his joy of her relative performance in that race. On the beat to the finish, "we saw twelve larger boats ahead of us…and on the way passed them all, crossing the finish line ten seconds ahead of the

leader. [That line-honors finish] is still a high point in my sailing experience because it confirmed all I had hoped for in DORADE—a real sea boat that could go to windward with out-and-out racers."

That winter, DORADE's mainmast was shortened, and her bowsprit and heavy bulwarks eliminated. To quote Adkins, "She had found her wonderful balance" in time for the 1931 Transatlantic Race, in which she was, by far, the smallest yacht and the only yawl. Competitors, including some of the best-known names in yachting, and most critics thought her fragile and criticized the organizers for allowing her to enter such a daunting race. Her crew, which included Rod Sr., his sons Rod and Olin, and their Bermuda Race veterans Jim Merrill, Johnny Fox, Ed Koster, and Buck Moore, had an average age of 22. Indeed, Fox later wrote, the British press referred to Olin as the "boy skipper." DORADE raced nearly 3,000 miles in 16 days at an average speed of 7.83 knots. The result at the Plymouth finish line was nothing short of astounding: DORADE had finished two days before the next, much larger competitor. She and her crew were to spark a revolution in ocean-racing yacht design.

Olin later wrote in *The Rudder* (May 1936) that he aimed to design an ocean racer that would also serve as a cruising yacht, most of which at the time were designed for coastal sailing. He cited John Alden's Bermuda-winning schooner MALABAR IV "as the lightest and cleanest lined fisherman type yacht," and Herreshoff's NY 40, MEMORY, converted to a jib-headed yawl, as the strongest "representative of the yacht type." Both yachts, and Starling Burgess's 1928 NINA, Olin believed had influence on ocean-racer development and on his design of DORADE. But it was George L. Watson's DORA of 1891 that Olin, late in life, discovered was of a hull design "strikingly similar to the boat that emerged as DORADE."

The reader will welcome Adkins's account of the early years of racing successes, Atlantic passages, and accolades for DORADE and crew. But for most East Coast sailors, his details of DORADE's next half century on the West Coast of the U.S. will be a new treat. She continued her racing success in the Trans-Pac and the Swiftsure races. One hard-to-believe story recounts her risky offshore passage in the middle of WWII from San Francisco to Seattle. Apart from this apparently huge risk, DORADE was always loved and cared for by her eight owners in both San Francisco Bay and Puget Sound. In 1982, the icon of St. Francis Yacht Club racing, R.C. Keefe, organized a match race against another early S&S yawl, SANTANA, with Tom Blackaller at SANTANA's helm. Because SANTANA had mizzen trouble at the start, Bob Keefe decided to strike DORADE's mizzen. Adkins writes, "When Rod Stephens later saw pictures of the race in *Sports Illustrated*, he was very critical saying, 'I strongly suggest

that she never be sailed without using her mizzen.'"

The fondness of both Rod and Olin for their creation spans 80 years. Olin raced DORADE in Italy during her Mediterranean years from 1997 to 2006. When Mitch Neff, then-president of Sparkman & Stephens, found an American to buy her and bring her back in 2006, Adkins's account of Capt. Paul Buttrose's maneuvering with Italian customs officials to let DORADE be exported is too hilarious to reveal here.

Olin sailed on DORADE after she had returned home to American waters. In 2008, his health failing, he was able to watch her from the race committee boat as she won the Castine Classic Yacht Race. At the gun he declared, "This is the best 100-year birthday present there could ever be!"

Doug Adkins has collected and compiled important documents, some of which are published here for the first time. Both author and publisher share a magical understanding and appreciation for the subject. The book is a history, but words without the splendid graphics—historical and contemporary photographs, and drawings—would only partially tell the story.

Bob Scott is owner of the Sparkman & Stephens–designed New York 32 FALCON which, on the 75th anniversary of her launching, won three first-place trophies in the 2011, 432-mile Marblehead-to-Halifax Race. Among her prizes was the Over the Hill Gang trophy, for the fastest boat with an average crew age of over 50.

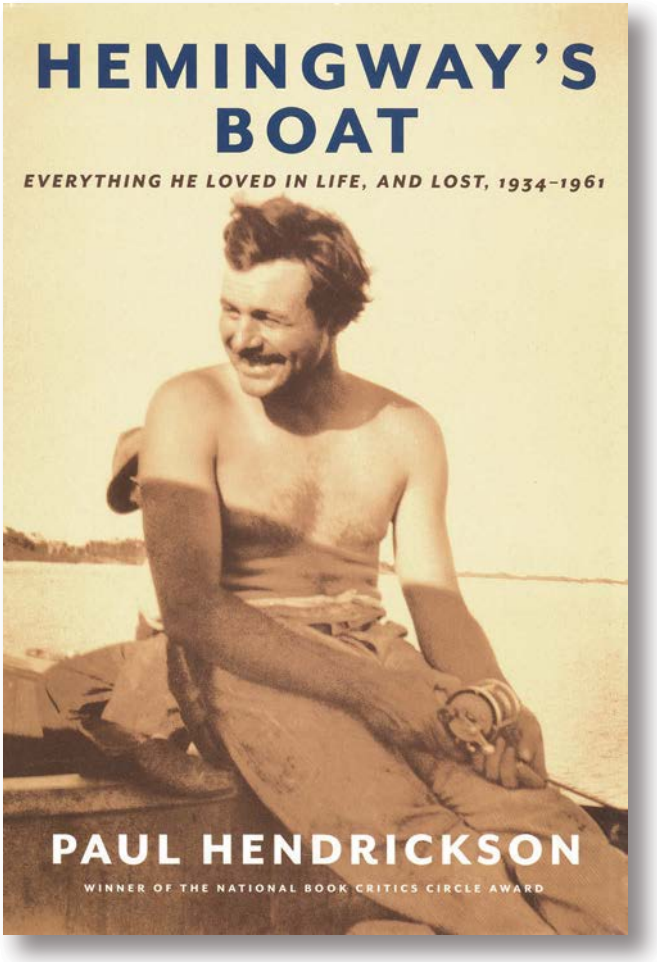
Hemingway's Boat

Everything He Loved in Life, and Lost, 1934–1961

Hemingway's Boat: Everything He Loved in Life, and Lost, 1934–1961, by Paul Hendrickson. Alfred A. Knopf, New York, New York. 532 pp., $30. *Available from The WoodenBoat Store.*

Reviewed by Tom Lunde

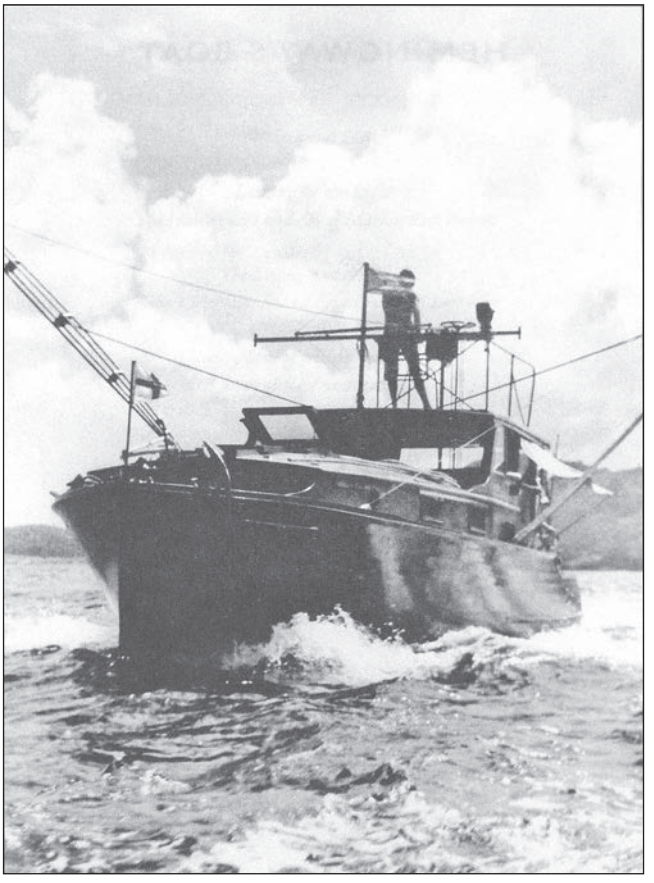
Paul Hendrickson's *Hemingway's Boat* is an account of Ernest Hemingway's life centered on his love of fishing and his boat, PILAR. Big-game fishing was a physical challenge when Hemingway entered the sport in the late 1920s, and it remains one today. It was a relatively new endeavor popularized by Zane Grey and a few others. Hemingway was an innovator with his technique of overcoming the urge to reflexively set the



hook, using outriggers for bait, and maneuvering a boat to bring the big fish in before the sharks got to it; and if evasive boat handling failed, Hemingway was known to use a Thompson machine gun against sharks once the gamefish grew tired.

"My aim," writes Hendrickson, "...is to try to lock together the words 'Hemingway' and 'boat' in the same way the locked-together and equally American words 'DiMaggio' and 'bat' or 'Satchmo' and 'horn' will mean something in the minds of most people, at least of a certain age." The boat's symbolism gets a bit murky when Hendrickson moves from icon to metaphor, stating in an essay on sources that he has been "riding her [PILAR] in his mind as metaphor and motif and storytelling structure."

The book illuminates Hemingway's character, and does a beautiful job of showing him as a more sympathetic person than his reputation as an arrogant, mean drunk suggests. But it is less successful in its attempt to show how the boat was central to Hemingway in the same way that the bat was central to DiMaggio's life or the horn to Louis Armstrong's life. As Hendrickson acknowledges, other aspects of Hemingway's life exerted powerful influences on the man; he writes that Hemingway's "life, like his boat, beat against so many crosscurrents." To show these "crosscurrents," Hendrickson delves into the lives of several people who spent time on PILAR to help us understand Hemingway's more humane traits through his interactions with those people.



Although their voices offer a more rounded depiction of Hemingway than many previous biographies, Hendrickson's tendency to over-focus on these minor figures, even after they are no longer with Hemingway and aboard the boat, ultimately detracts from his attempt to make the boat front and center.

Hemingway moved to Key West in 1928 with his second wife, Pauline Pfeiffer. Key West would be a quiet place for Hemingway to write; once there, he finished *A Farewell to Arms*. And he fished, taking any opportunity to jump on a boat. Six years after moving to Key West, he purchased PILAR, a lengthened Wheeler Playmate he had custom-built; three years later he published *To Have and Have Not*. The new novel would be his only work set in the United States—Florida, to be exact—and its main character, Harry Morgan, is a charter-fishing captain. It is not hard to imagine Morgan's boat as a 38′ Wheeler.

The Wheeler Shipyards of Brooklyn, New York, which designed and built PILAR for Hemingway, is well covered here. Hendrickson's account has a punch list of things Hemingway wanted on the boat, but it doesn't explore why he chose Wheeler or this particular boat—a customized, longer version than the standard Playmate. There is an aside about Vincent Astor choosing the same model, and we're left to assume that may have been a factor in Hemingway's decision.

By 1940, Hemingway had moved from Key West to Cuba, while maintaining a summer address in Ketchum,

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Idaho; he'd divorced Pfeiffer, and met Martha Gelhorn, whom he would marry later that year; and he'd published *For Whom the Bell Tolls*, one of whose characters is named Pilar. He spent the early years of World War II in Cuba, using the refitted PILAR as a U-boat chaser, and spent the latter half of 1944 in Europe, covering the war—and meeting Mary Welsh, who would become his fourth and final wife. Based on that European stint, he wrote his final novel set in Europe, *Across the River and into the Trees*, which was panned by the critics and is considered his weakest work. E.B. White would parody it in *The New Yorker* with a piece titled "Across the Street and into the Grill." This criticism catalyzed his next novel, *The Old Man and the Sea*—a truly mature work and a culmination of everything he learned while fishing on PILAR. It won a Pulitzer Prize in 1952, and garnered Hemingway the Nobel two years later. Hendrickson recounts Hemingway's pre–*Old Man* days aboard PILAR through the eyes and experiences of Nita Houk (Hemingway's secretary) and her husband, Walter, but these outings aboard the boat don't reveal much of the writing of the novel.

I had to look beyond *Hemingway's Boat* to understand more about what happened to Hemingway and PILAR after his second trip to Africa, in 1952, where two plane crashes caused his physical deterioration. Few of the particulars of his leaving Cuba are covered in the book, and Hendrickson's post-Cuba focus turns to Hemingway's domestic turmoil. There's very little on the changes in Cuba brought on by Fidel Castro in 1959; instead, there is a jump to Hemingway's days in Ketchum, and his 1961 suicide there. Perhaps not enough is known that can be responsibly written about Cuba just before the Bay of Pigs and the coming Cuban missile crisis. It's understandable that Hemingway would become more depressed away from the only place and boat he really loved. He could not write in Idaho and had aged to seem two decades older than his 62 years. Just before he shot himself, he had wondered if he could get the boat—which had been neglected after his departure from Cuba—to the coast of Mexico and do some fishing.

Some of PILAR's particulars are detailed in an end essay on sources. Hendrickson mentions the efforts of watercraft curator Dana Hewson at Mystic Seaport and his work with the Hemingway Preservation Foundation, Inc. And he updates the reader on the fact that PILAR has been preserved, as has Hemingway's home, Finca Vigia, where Hemingway wrote his last works. Those include works published after Hemingway's death but written about the same time as *The Old Man and the Sea.* Among these is *Islands in the Stream,* with three different parts entitled "The Sea When Young," "The Sea When Absent," and "The Sea in Being."

Hemingway's Boat introduces little-known material about Ernest Hemingway, his sons, and other people in his life. And it presents the influences of a beloved boat on an author—a boat that enabled Hemingway to lead a strenuous and active life, and represented for him freedom from society, celebrity, criticism, and a wife or two.

Tom Lunde is a photographer, graphic designer, and sailor who divides his time between New York City and the Maine coast.

BOOKS RECEIVED

The Canadian Canoe Company and the Early Peterborough Canoe Factories, by Ken Brown. Published by Cover to Cover, 3 Engleburn Place. Peterborough, ON, K9H 1C4 Canada, www.prcovertocover.ca. 152 pp., softcover, $20. ISBN: 978–0–9784368–4–1. *This thoroughly researched account contains many historic portraits and documents, and should be a treasure to any canoe historian.*

The Power and the Glory, by William C. Hammond. Published by the Naval Institute Press, 291 Wood Rd., Annapolis, MD 21402, www.usni.org. 264 pp., hardcover, $29.95. ISBN: 978–1–61251–052–1. *The third in Hammond's series of historic novels in the vein of C.S. Forester and Patrick O'Brian; this one blends fact and fiction as ships of the American Navy confront British and French warships in the late 1790s.*

San Salvador: Cabrillo's Galleon of Discovery, by Bruce Linder. A special publication of *Mains'l Haul, A Journal of Pacific Maritime History.* Published by Maritime Museum of San Diego, 1492 North Harbor Dr., San Diego, CA 92101, www.sdmaritime.org. 108 pp., paperback, $12.95. ISBN: 978–0–944580–31–8. *Spaniard Juan Rodriguez Cabrillo led three ships on an exploration of the coast of California in 1542; this book's timeline, glossary, and many pictures recount that expedition.*

Q & A Boat Repair: Loving and Fixing Wooden Boats, by Gary Wheeler. Published by the author at www.lulu.com. 524 pp., paperback, $24.00. ISBN: 978–0–557–77229–2. *Wheeler, who has worked with wooden boats for over 30 years, has compiled more than 500 questions and answers about boat purchasing, building, and repair that he gathered from his website, www.mastmate.com; the questions are loosely organized around a few topics, but without an index searching for a particular answer is challenging.*

Built for the Bay: The Chesapeake 20, by Theodore Weihe. Published by the author and the Chesapeake 20 Association at www.lulu.com. 96 pp., hardcover, $35.00. ISBN: 978–0–557–77229–2. *One of five original classes on Chesapeake Bay, the Chesapeake 20 has continually raced since the 1930s. Written by a former commodore of the C20 Association.*

DVD

****The Beetle Cat: A Small Boat with a Big History***. Published by Pearl River Productions, 353 Riverview Ln, Centerville, MA 02632, www.pearlriver.tv. 60 minutes, DVD, $19.95. *This hour-long DVD explores the history of the Beetle Cat from its origins in the 1800s to interviews by current builders Bill Womack and Charlie York.*

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CALENDAR OF EVENTS

EAST

March

8–April 5 Winter Speaker Series
Bristol, Rhode Island
On March 8 Capt. Richard Phillips gives the story of his **Encounter with Somali Pirates**. On April 5, Herb McCormick presents **Around the Americas on OCEAN WATCH** with photographs of his 25,000-mile voyage. *Herreshoff Marine Museum, 1 Burnside St., Bristol, RI 02809–0450; 401–253–5000; www.herreshoff.org.*

16–18 Maine Boatbuilders Show
Portland, Maine
Featuring the work of more than 200 boatbuilders, manufacturers, and boatyards. *Portland Yacht Services, 58 Fore St., Portland, ME 04101; 207–774–1067; www.portlandyacht.com.*

April

21 Classic Yacht Symposium
Bristol, Rhode Island
Co-sponsored by the Herreshoff Marine Museum and the New England section of the Society of Naval Architects and Marine Engineers. *Herreshoff Marine Museum, 1 Burnside St., Bristol, RI 02809–0450; 401–253–5000; www.herreshoff.org.*

May

5 Solomons Maritime Festival
Solomons, Maryland
This free family event offers antique boats and motors, children's games, and boat rides for all. *Richard Dodds, 410–326–2042 ext. 31. Sponsored by Calvert Marine Museum, P.O. Box 97, Solomons, MD 20688; www.calvertmarinemuseum.com.*

CENTRAL

April

13–14 Ghost Ships Festival
Milwaukee, Wisconsin
Wisconsin's largest trade show devoted to scuba diving and Great Lakes maritime history. Held at the Wyndham Hotel and Convention Center. *Great Lakes Shipwreck Research Foundation, 159A North 59th St., Milwaukee, WI 53213; www.ghost-ships.org.*

21 Spring Tour of Ontario Boat Restoration Shops
Muskoka, Ontario
See what Ontario's boatbuilders have been working on all winter. Hot lunch in Port Carling included. *For more information, Antique & Classic Boat Society, 422 James St., Clayton, NY 13624–1202; 315–686–2628; www.acbs.org.*

SOUTH

Continuing through May 2
Life Saving Station Exhibit
Morehead City, North Carolina
This exhibit, "Sufficient for Life-Saving Service," explores the history of the work done by those charged with testing tools and products for use in lighthouses and rescue craft. *The History Place, Carteret County Historical Society, 1008 Arendell St., Morehead City, NC 28557; www.thehistoryplace.org.*

March

19–29 St. Johns River Cruises and Sunnyland Boat Festival
Tavares, Florida
The southbound St. Johns River Cruise runs from Jacksonville to Sanford March 19–22 before the **Sunnyland Festival** starts on the 23rd. The northbound cruise follows the Festival from March 26 to 29. *For cruise information, contact Guy Marvin, III, gmarviniii@gmail.comIIIMarvin@aol.com. For Sunnyland Festival information, contact Terry Fiest, terry.fiest@cubic.com. Sponsored by Sunnyland Chapter, Antique & Classic Boat Society; 352–383–6095; www.acbs-sunnyland.com.*

30–April 1 Garvan Woodland Gardens Antique and Classic Boat Show
Hot Springs, Arkansas
Boats will be on exhibit at Lake Hamilton. *Event information, Mike Langhorne, mikelanghorne@yahoo.com, 501–318–7666. Sponsored by Heartland Classics Chapter, Antique & Classic Boat Society, P.O. Box 339, Langley, OK 74350; www.heartland-classics.org.*

April

19–21 Lake Hartwell Antique Boat Festival
Hartwell, Georgia
Lake cruise and cookout on the 19th, symposium on the 20th, and Saturday is the public day of the festival. *Event information, Dennis or Julie Moore, 706–376–1433 or julmor1@yahoo.com. Sponsored by Blue Ridge Chapter, Antique & Classic Boat Society, 123 Mr. Johns Choice Rd., Hartwell, GA 30643–2365; www.blueridgechapter.com.*

20–22 Apalachicola Antique and Classic Boat Show
Apalachicola, Florida
Classic boats, automobiles, and outboard motors. Boatbuilding activities, food, lectures, and more. *Apalachicola Bay Chamber of Commerce, 99 Market St., Suite 150, Apalachicola, FL 32320; 850–653–9419; www.apalachicolabay.org.*

20–22 Great Florida Gulf Coast Small Craft Festival
Cortez, Florida
Rowing, sailing, and paddling races, and much more. *Event information, Ted Adams, 941–708–6120 or Ted.Adams@manateeclerk.com. Sponsored by Florida Gulf Coast Maritime Museum, P.O. Box 100, 4415 119th St. West, Cortez, FL 34215; www.fgcscf.org.*

20–22 Bayou Teche Wooden Boat Show
Franklin, Louisiana
Held in conjunction with the Bayou Teche Black Bear and Birding Festival, on Bayou Teche in South Louisiana. *Event information, Roger Stouff, 3592 Chitimacha Trail, Jeanerette, LA 70544; 337–923–7547; www.techeboatshow.com.*

May

4–5 Wooden Boat Show
Beaufort, North Carolina
Free sails Friday afternoon. On Saturday, enjoy the Wooden Boat Show with kids' activities, demonstrations, rowing and sailing races, pond yachts, and much more. *North Carolina Maritime Museum, 315 Front St., Beaufort, NC 28516; 252–728–7317; www.ncmaritimemuseums.com.*

5–6 Cedar Key Small Boat Meet
Cedar Key, Florida
Open to all shallow-draft boats. There are no planned events, signups, or fees. Campsites available. *Event information, Cedar Key Chamber of Commerce, 352–543– 5600; Dave Lucas, 941–704–6736, skipjack@tampabay.rr.com; or Hugh Horton, Cedar Key Small Boat Meet, 8471 SW County Rd. 347, Cedar Key, FL 32625; huhorton@gmail.com*

5–6 Pirates Cove Wood Boat Festival
Josephine, Alabama
A gathering of traditional boats. Enjoy a pirates' ball, races, nautical fair, treasure hunt, food, and live music. *Event information, Eileen Mueller, 251–987–1547. Perdido Wood Boat Association, 6600 County Rd. 95 S., Josephine, AL 36530; www.perdidowoodboat.org.*

11–12 Woodies on Lake Sinclair
Eatonton, Georgia
At Crooked Creek Marina. Cruise is on Friday with public show on Saturday. *Event information, Jon Walters, walters@plantationcable.net, or Joyce Neff, 478–968–5634, or neffbandlow@windstream.net. Blue Ridge Chapter, Antique & Classic Boat Society, 123 Mr. Johns Choice Rd., Hartwell, GA 30643–2365; www.blueridgechapter.com.*

WEST

Continuing through May 21
Exhibit: "Chátwilh: The Craft and Culture of the Squamish"
Vancouver, British Columbia
Exploring the Squamish Nation, their canoes, their craftsmen, and their history. *Event information, Vancouver Maritime Museum, 1905 Ogden Ave., Vancouver, BC, V6J 1A3, Canada; 604–257–8300; www.vancouvermaritimemuseum.com.*

March

16–18 Northwest Spring Boating Symposium
Port Townsend, Washington
Billed as "Continuing Education for the Conscientious Boater," the symposium topics include seamanship, boat systems, and vessel

maintenance. *Event information, 360–385–3628, or symposium@nwmaritime.org. Wooden Boat Foundation & Northwest Maritime Center, 431 Water St., Port Townsend, WA 98368; www.nwmaritime.org.*

17 **Spring Potluck**
San Francisco, California
A gathering of the Master Mariners Benevolent Association, held this year at the Golden Gate Yacht Club. *Master Mariners Benevolent Association, San Francisco, CA 94109; 415–364–1656; www.mastermariners.org.*

April

21–22 **Depoe Bay Wooden Boat Show**
Depoe Bay, Oregon
Wooden boat show, crab feed, and "ducky derby." *Depoe Bay Chamber of Commerce, P.O. Box 21, Depoe Bay, OR 97341; 877–485–8348; www.depoebaychamber.org.*

28 **McKenzie River Wooden Boat Festival**
Vida, Oregon
Parade for wooden boats from Finn Rock Landing to Eagle Rock Lodge. *Event information, Randy Dersham, randy.dersham@gmail.com. McKenzie River Wooden Boat Festival, 49198 McKenzie Hwy, Vida, OR 97488; 541–285–3676; www.mckenzieriverdriftboat.com.*

May

3–6 **Keels and Wheels Concours d'Élégance and ACBS Quarterly Meeting**
Seabrook, Texas
View vintage racing boats, runabouts, and automobiles. *Event information, Keels and Wheels, Bob Fuller, 713–521–0105, bfuller@4u.com. Quarterly meeting, www.acbs.org. Sponsored by Lakewood Yacht Club, 2425 NASA Rd. 1, Seabrook, TX 77586; www.keels-wheels.com.*

12–13 **Olympia Wooden Boat Fair**
Olympia, Washington
Typically more than 50 wooden boats are on display at Percival Landing. Shoreside activities include arts and crafts, music, food, and plenty of fun for children. *Event information, Olympia Wooden Boat Association, P.O. Box 2035, Olympia, WA 98507; 360–491–1817, www.olywoodenboat.org.*

18–20 **Bass Lake Rendezvous**
Bass Lake, California
About 60 boats gather at the Pines Resort, Bass Lake, near the southern entrance to Yosemite National Park. *Event information, Joel Castro, 209–599–7310, joelcastro@verizon.net. Sponsored by Southern California Chapter, Antique & Classic Boat Society, www.socalacbs.com and Lake Tahoe Chapter, Antique & Classic Boat Society, www.acbs-tahoe.org.*

EUROPE & BEYOND

April

19–24 **Antigua Classic Yacht Regatta**
English Harbor, Antigua
Hosting about 60 yachts including traditional craft from the islands, classic, Spirit of Tradition, and J-class yachts, along with tall ships. *Antigua Yacht Club, English Harbor, Antigua, West Indies; 268–460–1799; www.antiguaclassics.com.*

May

1–5 **Algeria Boat Show**
Port La Madrague, Aïn Benian, Algeria
This second annual show features boats of all kinds, marine suppliers, and much more. *Event information, Coordonnees ExpoED, 18, Lot. El Nadjah II, Dely Ibrahim, Algeria; 213–0–21–366–153; www.algeriaboatshow.com.*

5–6 **McGruer Regatta**
Rhu, Scotland
An informal celebration of McGruer boats to be held at Rhu Marina. All classic boats are welcome for friendly racing. *Event information, Gordon Drysdale, gordondrysdale@mcgruerregatta.com. McGruer Regatta, Rhu Marina, Rhu, G84 8LH Scotland, U.K.; www.mcgruerregatta.com.*

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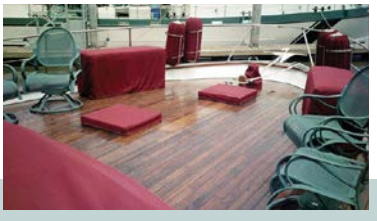

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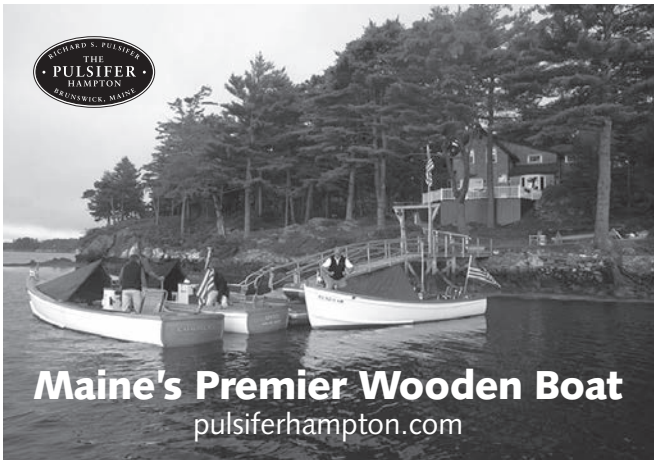

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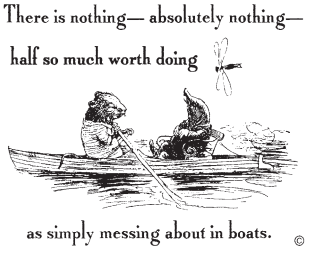

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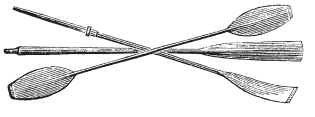

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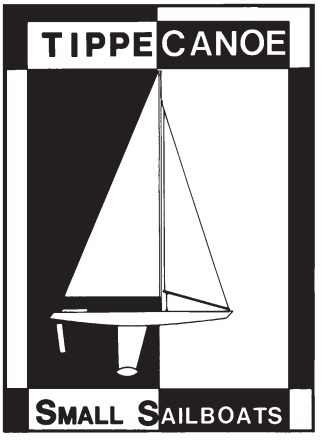

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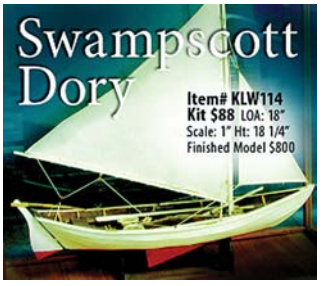

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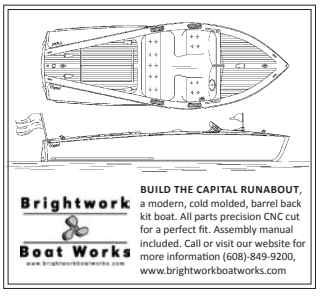

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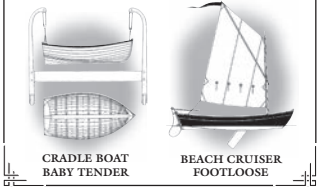

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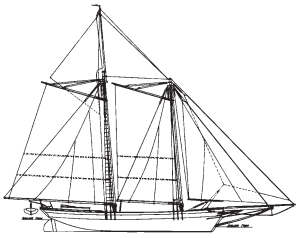

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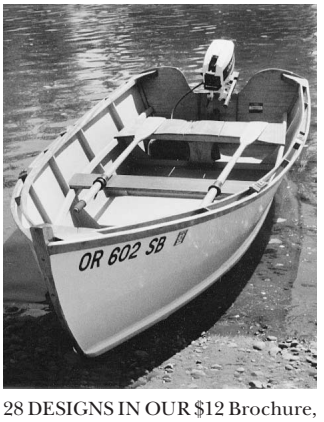

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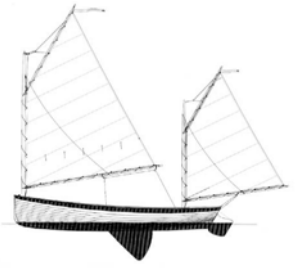

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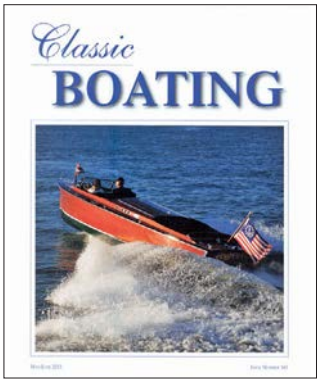

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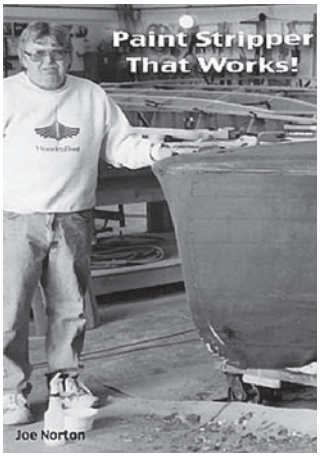

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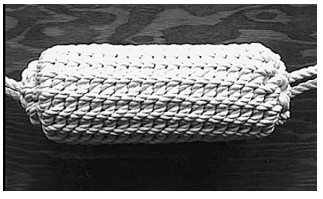

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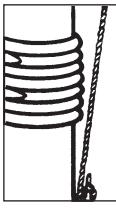

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Features tips on writing a boat-for-sale classified ad that works and how to be ready for questions from potential buyers. Call Wendy at 207–359–4651 or email <classified@woodenboat.com>.

17′ WITTHOLZ CATBOAT with trailer and outboard engine. In excellent condition. $9,000. Located Brooklin, ME. NJ, 201–569–3787 or 201–568–1441.

31′ CLASSIC CUSTOM SKIPJACK 1983. Beautiful, fun, structurally sound. Built without regard to cost. Huge cockpit. 9.9 Suzuki outboard, cockpit controls. Professionally maintained. MA, $27,500. Fred, 978–356–2504. Leave mailing address. Also see www.woodenboat.com/business.

WITTHOLZ 40′ TRAWLER-TUG built 1968, Reedville, VA. Excellent condition; 400 hours Perkins 354; 8 knots, 3 gal per hour. A classic. $55,000, fishcrow@fastmail.fm.

1952 CHRIS-CRAFT, FULLY restored—KBL motor, fully operational. Original bottom. Trailer. $35,000. 906–235–2979, 906–484–3377.

THE BOAT OF A LIFETIME: "DEVA"—L. Francis Herreshoff design #65. The only one ever built. See the feature article in *WoodenBoat* No. 157. A dream to sail and a beautiful sight to behold. This is your chance to become her next steward. "Deva" is a pedigreed ketch that has cruised the Caribbean; second in class, Eggemoggin Reach Regatta 1997. See her in Herreshoff's *The Common Sense of Yacht Design*, p. 269. Dan Brayton and Brad Story combined to faithfully interpret details of her design and construction. LOA 36′6″; beam 8′6″; draft 4′9″; displacement 16,500 lbs. Fully equipped. $65,000. Tel. 207–359–4651, carl@woodenboat.com.

1960 NIMPHIUS-BUILT 36′ Evergreen-class sloop. Mahogany interior, teak deck, 22-hp Yanmar diesel. Good sail inventory, well-maintained. $32,000. John, 312–543–5048 or jtddrnec@gmail.com.

CLASSIC MOTORYACHT—1926, 62′ Elco. Shown in *WoodenBoat* No.171, March/April 2003, sketch pg. 42. Survey one year ago June. Twin diesels. $500,000+ invested. Northern CA, Asking $149,000, 415–887–9932.

COLIN ARCHER PILOT CUTTER "Marion D"—38′, Norwegian built 1950, cutter rigged, pitch pine carvel-planked on double-sawn flitch frames, white oak backbone, trunnel fastened. $35,000. mariond.squarespace.com.

16′ GIESLER & SONS FRENCH River Deluxe—Every option; 1989, 40-hp outboard, trailer. In water twice. $6,000. 330–208–7868.

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NEW MAHOGANY RUNABOUT—Wood/epoxy construction, 85-hp Subaru, new trailer, $24,900. More information, pictures, www.mahoganyheartthrobs. 615–890–9227.

FRIENDSHIP SLOOP—Traditional Pemaquid design by Howard Chapelle. Located Port Townsend, WA. See details, www.wallaceyachts.com.

14′10″WHITEHALL. CARVEL cedar-on-oak. Two pairs Shaw & Tenney oars. Recent trailer. $4,700. ME, 207–338–8366.

1937, 35.9′ LOD "SEA WITCH," Angelman Ketch, hull #1. Documented. Circumnavigated twice, won Transpac, second 1949, first 1951, corrected time. Gaff-rigged, new electrical wiring, navigation, paint and mahogany on oak, full lead keel, Dynel-sheathed, 6′ dinghy. Well maintained. *WoodenBoat*, March/April 1999. Titusville, FL www.heritech.com/seawitch/sea_witch.htm.

45′ MAST AND BOOM from a Hinckley 34. Great condition, fully rigged with roller furling and original bronze hardware. Recently varnished. philip@dyer-design.com for details. $6,500.

"EUPHRATES" 1949 MATTHEWS 40′ Classic Motoryacht—Beautiful 10-year restoration. Available for Fractional Ownership in Newport Beach, CA. $25,000 per 10% interest. www.Euphrates-NewportBeach.com. Bob Hersh, PrimeTime Yachts, 949–675–0583, 949–278–6764, robert@primetimeyachts.com.

WESTON FARMER DESIGN SKIPJACK—Hull two layers okoume plywood. 13-hp diesel. Includes trailer. Days 203–797–1992, ask for Al or agk1947@yahoo.com.

1953, 27′ SHEPHERD—Chrysler M47Ss, upgraded with freshwater cooling, bronze-rubber impeller water pumps, electronic ignition. Low hours since rebuild. Completely rebuilt in 2006 with no system untouched. Professionally maintained. Recent exterior varnish stripped, recoated, 15 coats hi-gloss. Hardware rechromed. Adjustable, removable bimini top enclosure, complete isinglass panels. Full boat storage cover. Jupiter, FL $150,000. Doug, 954–303–4349, gdougieg@aol.com.

ALDER BAY ACORN TENDER 1991—7′10″, like-new, one owner, rope gunnwales. Spruce oars with leathers, sail kit, hand trailer, cover, Iain Oughtred design, David Bradford builder, needs good home! Virginia Beach, VA, $8,900. charles.nash@wfadvisors.com, 757–628–8932.

1947 RAVEN #7 SAILBOAT AND Trailer—Sails, aluminum mast. $1,200. 567–204–6748.

Boats For Sale
continued

11′ SAND DOLLAR SAILING/Rowing Skiff. Sapele mahogany, cypress framing, Shaw & Tenney oars, gunter rig. Built 2011. $2,550. $3,000 w/trailer. 410–639–7547, muskat388@msn.com.

1967 GARDEN DESIGN KETCH, 45′ LOD, 13.5′ beam, 6′ draft. 85-hp Perkins diesel. Bronze-fastened teak construction. Outfitted for offshore cruising. Sleeps six. $50,000 or best offer. www.alientocharters.com.

2011, 18′ WEST POINT SKIFF—2011 30-hp Evinrude E-TEC outboard with tiller steering, and trailer. Turnkey operation, ready for the water now. $23,000. See www.westpointskiff.com for more information, 207–389–2468.

40′ SLOOP, 1982 CUSTOM-MADE "Celebration"—One-ton racer, Bill Cook design. 42-hp Pathfinder diesel. In Norwalk, CT. $10,000. 973–968–8566. sebastianbourgeois@yahoo.com.

1973 GRAND BANKS 32′, 120 Lehman diesel, ice box, gas stove, $11,000. Contact Bill, 954-931-2011.

1917 HERRESHOFF 12½—Professionally maintained, excellent condition, successfully raced. 2001 Triad trailer. Located MA. $19,500. 508–560–0023.

1957, 15′ SLICKCRAFT MAHOGANY Runabout—$14,500. Completely restored, new upholstery, with trailer. Pictures available. Contact Dave Knight at 410–703–1961 or email newfknight@hotmail.com.

1965, 42′ TRAWLER. 6-cyl diesel, 4K generator. Undergoing restoration, needs paint and cosmetic work. TX, $27,000. Call for more details. Joe, 713–851–1702.

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1995 SLAUNWHITE MAHONE Bay–built 34′2″ gaff rig schooner. Beautiful, like new. Nanaimo, British Columbia, $40,000 CAD. 250–714–1918, view at www.flickr.com/photos/gaffrignanaimo.

1955 S&S, DERECKTOR-BUILT Gulfstream Sloop—37′ LOA. Total rebuild 2006–2008. Excellent condition, award winner, recent survey. MD, $45,000. 443–480–2318, www.rockhallproperties.com/Radiance.

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"SARAH," FAITHFUL Reproduction of Thomas Clapham's "Minoqua," 1892, Long Island, NY. Gaff-rigged, centerboard, 38′ yawl. Built by Bill Garvie, lifelong professional boatbuilder, for himself. Sound, launched 2006, finest materials, fully found, Nat Wilson sails. $35,000. San Rafael, CA, florencegarvie@gmail.com.

14′ ABACO DINGHY—Complete restoration, beautiful boat. Carvel planking. Can be outboard or sail. Trailer included. Asking $7,800. Call 941–795–1947, or cell 941–462–2792.

1934, 32′ RICHARDSON CRUISER. Pretty boat. Well-preserved, tight hull; venerable Graymarine. $28,000. Cayuga, NY, 315–539–5467.

40′ DICKERSON KETCH 1970—Teak deck, spacious cockpit, sleeps six below. Strip-planked mahogany on oak frames, 37-hp Westerbeke. NC, $8,000. kskvarla@gmail.com.

TRESARUS, 1959 CLASSIC 28′8″ Billy Atkin ForeAn' Aft—Continuously sailed and maintained since 1959. This decade had some new frames, some planking, stem, topmast, transom, forefoot, tanks. Standing and running rigging sound and functional, including yardarms, ratlines. Teak deck, Westerbeke diesel, 608 hours. Survey, many pictures available. Discovered September haulout she needs work on some frames, some planking. Ithaca, NY. emm5@cornell.edu.

22′ CAPE COD CATBOAT—Built to Ted Brewer's design (www.tedbrewer.com/sail_wood/capecodcat.htm). Excellent condition. Fresh professional topsides and coaming, Awlgrip paint. $11,800 with sail, cushions, and navigation equipment. 908–832–7383.

1999 KINGFISHER SLIDING-SEAT single rowing shell. Professionally built; needs coaming repair and refinishing. Rowable as is. Includes seat, riggers, shoes, and travel cover, no oars. Transportation available. Pictures on request. $1,000. 401–835–5711 or brooke@starrynight23.net.

1963 RICHARDSON 17′ Runabout—Lapstrake hull, mahogany plywood tops. Boat professionally restored down to bare wood in 2004, by Woodwind Yachts. New decks in 2004. Paint and varnish maintained at least biannually. Have original 45-hp engine, however boat refitted with 1997 50-hp Mariner 4-stroke. It is an eye-catcher on any lake. Asking $7,000 US. calschultz@sympatico.ca, 905–517–1500.

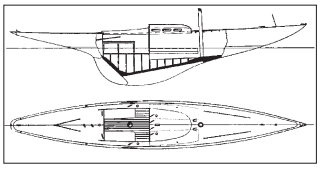
1962 TOR 40′ MERRYMAN—Mahogany double-planked on oak frames, keel-centerboard sloop with new standing rigging, and recent sails. Yanmar 40 diesel, traditional interior. Much has been done, little to do. Hull primed, needs to be painted. Currently in water, covered for winter. Asking $40,000. Contact Frank Gary, 410–703–4017, frank@walczakyacht.com.

2005, 28′ BOB STEPHENS-Designed diesel cruiser—Cold-molded hull, excellent condition, includes custom trailer. Owner, 315–839–7192. For extensive photos and full specs, go to yachtview.com. $79,900.

1956, 42′ MATTHEWS MARTINIQUE Express Cruiser—Very original, one of two remaining of this model. Twin 331 Chrysler Hemis, rebuilt. Newer canvas upholstery and instruments. All new chrome. Hull sanded to bare wood and repainted in 2010 to show quality. $45,000. 330–482–1607, randallhart.nyl@comcast.net.

1965, 47′ TRUMPY MOTORYACHT #418—Two staterooms, two heads, enclosed back deck, and flyingbridge with enclosure. Heat/AC in all areas. 6-71, and Northern Lights generator. $149,500. Call Bill Bowman, 804–439–3303 or email billbowmansr@aol.com.

1967 LYMAN 26′ HARDTOP Sleeper. All original except new Sunbrella upholstery. Original 318 Chrysler with 700 hours. Full cockpit cover. Swim platform. Stored on water in covered slip. Located St. Michaels, MD, $26,000. Bob at 410–310–5069 or rwhiddenii@gmail.com.



38′ Luders 24, molded mahogany plyood racer-overnighter, 1947. Complete restoration, $75,000, 516–639–1033, cutwater@earthlink.net.

1975 PETER NORLIN-DESIGNED IOR Sloop—See *Most Beautiful Boats in the World*. Carvel mahogany on oak. Fast, dry, with many upgrades. 2011 survey: "excellent condition." Gabriola, BC. $45,000. drswanson@shaw.ca.

18′ FENWICK WILLIAMS CATBOAT—Cedar over white oak. Launched 2006 by The Apprenticeshop, Rockland, ME. Yanmar diesel. Spruce spars. Teak decks and cabin soles. Stunning detail. Fresh water. Burger Yachts, 561–329–0850, FL. jtodd@burgerboat.com.

WHEELER 40′, 1952 SPORTfisherman—Twin diesels, excellent condition, located on Hudson River, NY. $49,000. Details at www.wheelersportfisherman.com.

20′ CHEBACCO CAT-YAWL, launched 2004, excellent condition. Brazilian mahogany, epoxy, light grey hull, Sitka and cypress spars, fancy rope work, carvings, and many extras. $22,000, Yves Robichaud, ymr@rogers.com, 506–532–3161.

BEETLE CAT HULL #419. Excellent condition, Doyle sail (2010), cockpit/boom cover (2010), trailer, new stays, hoops, running rigging. Paint and varnish perfect. $8,000. jgraceffa@morrisonmahoney.com.

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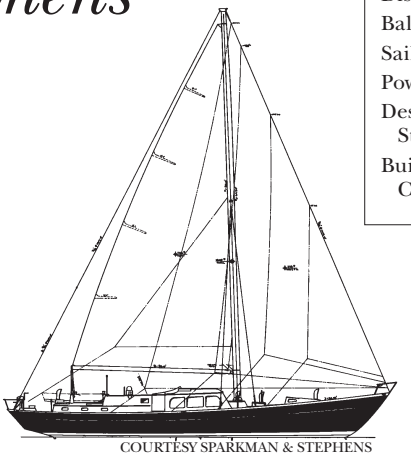
GRACE, ex-DJINN

A classic motorsailer by Sparkman and Stephens

GRACE Particulars	
LOA	61′11″
LWL	47′0″
Beam	16′0″
Draft	6′0″
Displ.	77,600 lbs
Ballast	10,000 lbs
Sail area	1,594 sq ft
Power	235-hp GM 6-71 diesel
Designed by Sparkman & Stephens, Inc.	
Built by Minneford Yacht Yard, City Island, New York, 1965	

GREG KELCHNER



COURTESY SPARKMAN & STEPHENS

GRACE, ex-DJINN is partway through an extensive rebuild, but her owner was unable to finish the project. GRACE now awaits a new steward in Fort Lauderdale, Florida.

by Maynard Bray

After growing up racing Six-Meter sloops and moving up right after World War II to a 20-year ownership of a big keel racing sloop, Commodore Henry S. Morgan commissioned this lovely centerboard motorsailer to become his third yacht named DJINN. She remained under Morgan ownership for two decades, always admired for being well run and beautifully maintained. It's evident from her generous rig and outside steering station that Morgan was a sailorman at heart. For her type, this boat is way more sail than power.

In the 1980s, her second owner and his family successfully sailed this yacht around the world. Later, as CASCADE, a third owner cruised her from California to the Caribbean and eventually to Maine. She then passed on to her fourth and present owner who renamed her GRACE and began a thorough refit—so thorough, in fact, that it remains to be completed. It's a saga of passion, perfection, and hope that I wish could be related here. But the upshot is that a grand opportunity awaits anyone wanting a yacht of this type to take over and continue to completion.

Here's how Jeff Lowell, who has known this boat and her owner for many years, sums up the situation: "Greg Kelchner, the current owner, fell in love with this beauty and has tried to structurally and cosmetically restore DJINN to her original condition. He is a perfectionist and he had a dream…. Unfortunately, he had neither the budget nor the time to make his dream a reality. He removed the entire interior down to the smallest fixture to access the hull structure from the inside. After making many repairs, and doing everything right, he has preserved that work by sheltering the boat from the sun and fresh water, and has always kept the bottom maintained…. This is essentially a boat in a box—or in this case, a warehouse. Greg has saved every bulkhead and cabinet that he removed. All the hardware has been rechromed and is ready for reinstallation. The cushions and linens are there as well. The aluminum mast needs painting, but the running and standing rigging look good. Anchors, lifelines, docklines, and fenders are all ready to go.

"The boat is now totally gutted with no interior or systems. The decks are partially removed aft. But the varnished teak deckhouses have been refinished, just as when she was new.

"The work remaining to get this classic back together again and sailing once more is formidable, but DJINN's soul has been bared and there are no new surprises to be found. The structure is excellent. This is a project worthy and deserving of completion, and there is the added bonus of the current owner being willing (and more than capable) of playing a prominent role from here on."

To this, I can only add "amen."

DJINN/GRACE is currently in Fort Lauderdale, Florida, just minutes from the airport. For more information or to make a visit, contact owner Greg Kelchner at kelmarine@yahoo.com or 954–609–5619.

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