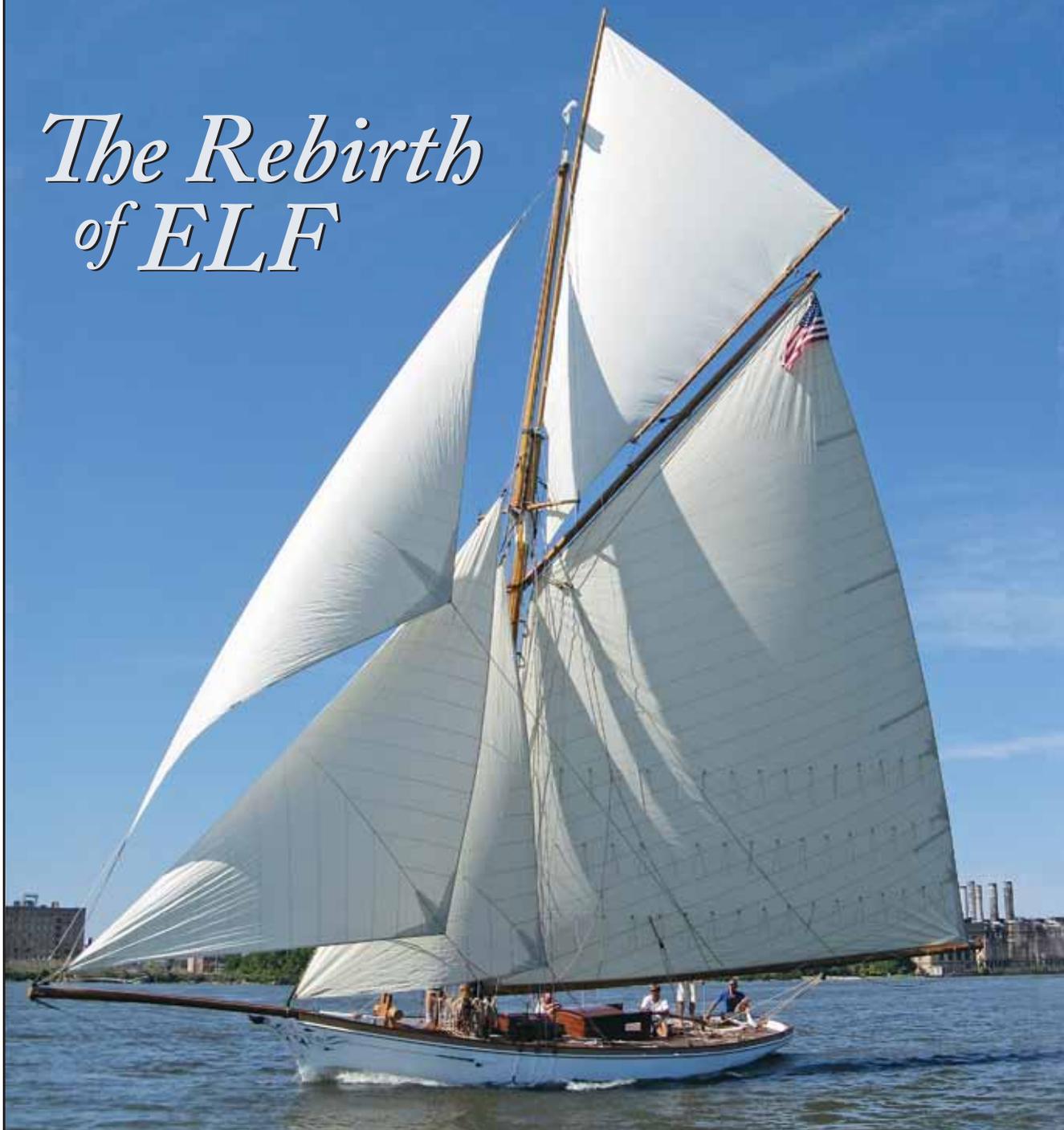


The Rebirth of ELF



WENDY BYAR

After 17 years of work, an 1888 yacht sails again

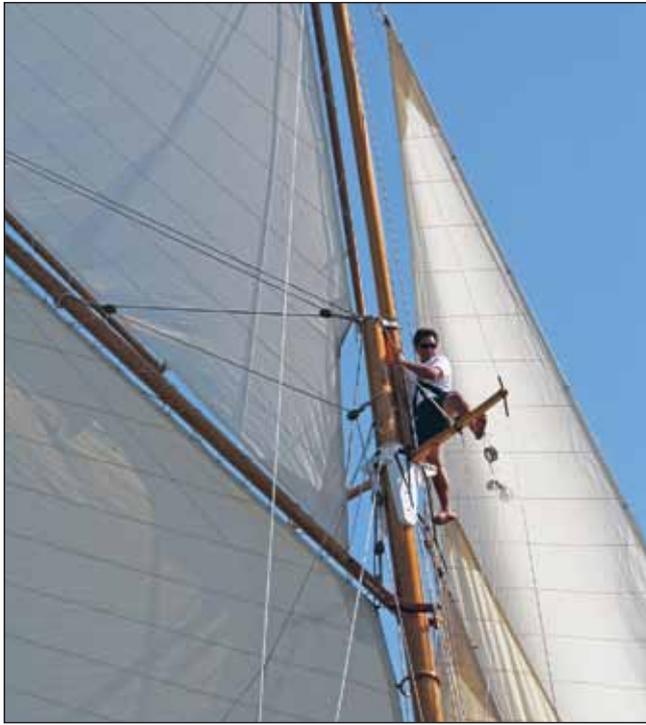
by John Brady

ELF makes her first impression with her rig. Her fidded topmast reaches 54' above the waterline, and her bowsprit and boom extend her 36' hull length to 58'. After following her varnished topmast and mainmast to deck level, the eye next takes in her sweeping sheerline, emphasized forward by her clipper bow and downward-curving bowsprit and aft by her counter

ending in a small transom. On deck, sprung planks and a carefully wrought skylight vie for attention with a ban-shee figurehead, a motif repeated at the end of the tiller.

When he is aboard, Rick Carrion, who spent 17 years restoring this boat, engages passersby. The figurehead, he tells them, was his own work and came to represent

Above—Rick Carrion purchased ELF in 1975, not knowing anything about her history or her racing pedigree. An 1888 Lawley design and construction, she was built for class-boat racing in Marblehead.



WENDY BYAR

The relaunched ELF today carries her sixth rig, this one a reconstruction of her original sail plan but with modern improvements to increase righting moment and longevity without appearing anachronistic.

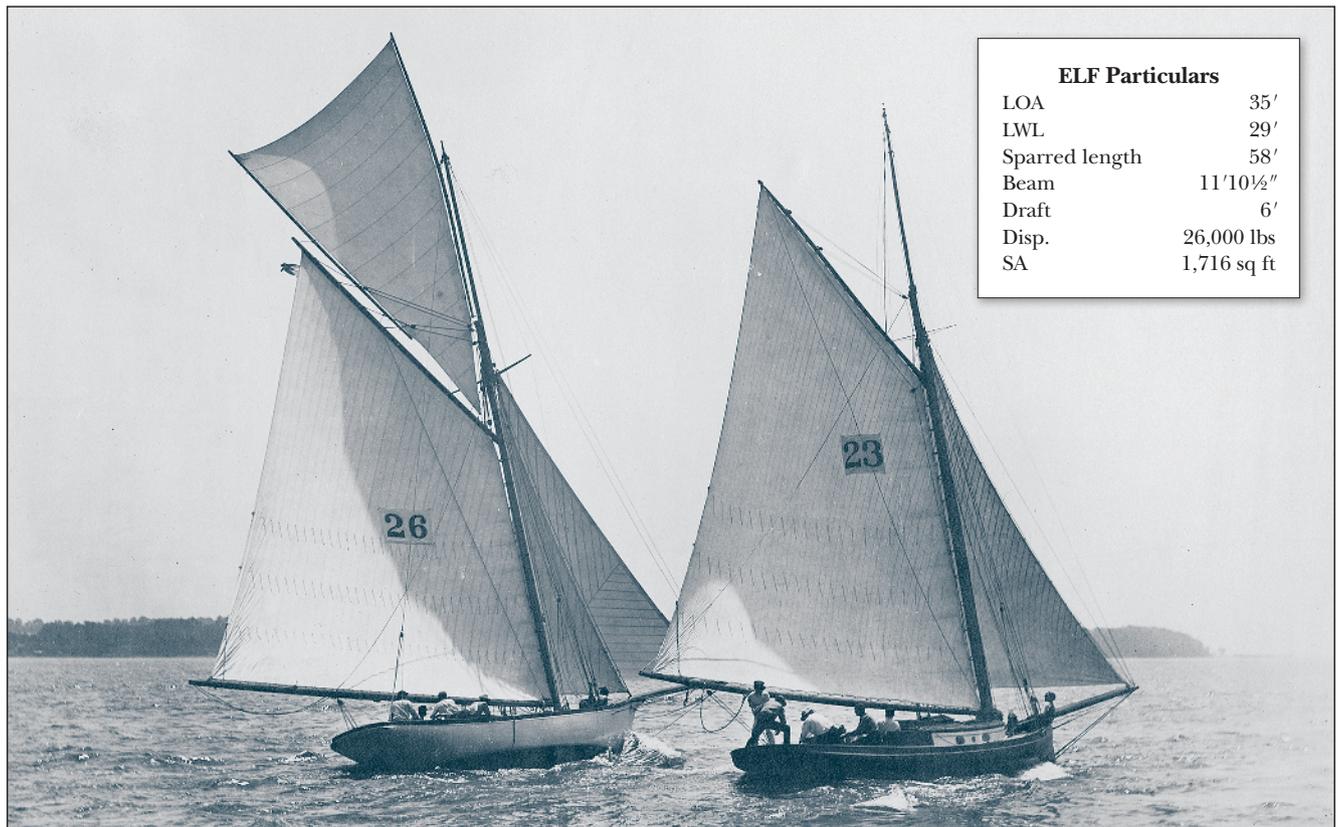
the form from the wood. Perhaps I was too connected, but it was a project I knew I must complete.”

ELF’s restoration has occupied all of Rick’s adult life, and his pride is evident. Soon, he chimes in with words that are also posted on a sign on the dock: this is the “oldest known small yacht in America.” It seems every old boat has a carefully crafted boast, but ELF has undisputed bragging rights: She was designed and built in 1888 by George Lawley to race in Boston’s 30’ water-line class. At that time, the debate was raging between “cutter-cranks” advocating deep-displacement hulls and “skimming-dish” aficionados who favored broad and shallow hulls. In his *Traditions and Memories of American Yachting* of 1942, W.P. Stephens used ELF as an example of a deep and heavily ballasted boat, contrasting her with the C.C. Hanley catboat HARBINGER.

Throughout the cutter/skimming dish debate, no one seems to have advocated reducing sail. ELF spread what seemed to be acres of cotton. In modern racing, when the wind fails the competitors push the starter button or are towed home. In 1888, that was not an option, so rigs grew more and more extreme to gain performance in light air. The workboats from which

everything ELF meant to him. “When I carved the figurehead, I got the same feeling as though the tools were somehow guided by something supernatural, to release

Under her first two owners, both serious racing sailors, ELF (left) saw considerable action off Marblehead. Subsequent owners refitted her for pleasure sailing—and accordingly reduced and altered her rig.



MASSACHUSETTS INSTITUTE OF TECHNOLOGY MUSEUM

George Lawley and Sons

George Lawley came to Boston from England in 1851 and went to work for Donald McKay, the famous builder of clipper ships. In 1866, he set up his own yard, George S. Lawley & Sons, in Scituate, Massachusetts, as enthusiasm for yachting caught on in this country. He expanded and moved the operation to Boston—adjacent to the then-home of the Boston Yacht Club—in 1874. In 1890, he purchased an adjoining property, retired, and turned the yard over to his son George Jr.

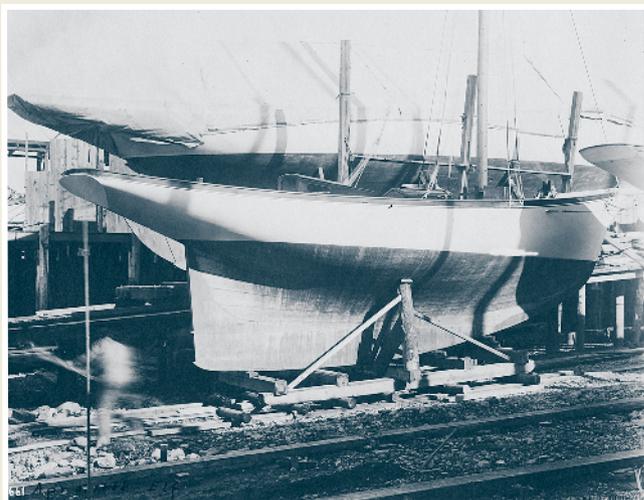
The firm moved to Neponset, Massachusetts, in 1910 and remained there until its closing in 1945. Fred Lawley, George Jr.'s son, who led the design department, was named superintendent in 1902. He held both positions until the family sold the yard in 1925 upon the retirement of George Jr. Fred Lawley then founded his own company, F.D. Lawley Inc., which continued until 1932, when he took a job with the U.S. government and the yard was reconstituted as Quincy Adams Yacht Yard.

Many of the boats built at Lawley's, like ELF, were to in-house designs, but the yard also built for outside designers. The company's projects ranged from dinghies to large yachts in steam and sail to U.S. Navy vessels. By the time ELF was launched in 1888—their third yacht for the 30' waterline class—the yard had built two Edward Burgess–designed AMERICA's Cup winners, PURITAN of 1885 and MAYFLOWER of 1886, and contributed to another, VOLUNTEER of 1887. (VOLUNTEER's steel hull was built by Pusey and Jones in Dela-

yachts like ELF descended also carried enough sail to move on a breath of wind, especially if they carried perishable cargoes. Racers simply added more canvas in the form of jackyard topsails and spinnakers and more crew to handle them.

The sheer weight of ELF's construction—made up of sawn oak frames and iron floors—contributed to her longevity. Furthermore, stress on her hull was reduced after her hardcore racing days ended in the late 1890s and her original rig was converted to a much smaller yawl. More than anything else, though, the craftsmanship that went into her construction at the outset helped give her a long life. The skill of the Lawley workforce—which ranked alongside the Nevins yard on City Island, New York, and Herreshoff Mfg. Co. in Bristol, Rhode Island—is evident in ELF's joinery, from dovetailed deckbeams to the trunk cabin cornerposts that extend down to the hull to stiffen her.

For longevity, a wooden boat must also be lucky in her owners. The looks, speed, and fine proportions of a yacht like ELF help to attract them. The



ELF of 1888 was one of many yachts constructed at the George Lawley yard in Boston, Massachusetts.

ware and fitted out by Lawley, and Lawley modified her hull after a subsequent redesign.) In 1941, the company sold its small-boat operation to Cape Cod Shipbuilding, and when government contracts dried up after the war, the yard closed.

Over its 79-year history—59 of those under the guidance of a Lawley family member—the yard built thousands of boats, yachts, and vessels in both wood and steel, including some of the most significant yachts of the time. Construction methods changed rapidly with racing demands and shifting technologies. The yard turned out boats of every description; schooners, sloops, cruisers, torpedo boats, launches, and dinghies so fine that they could have been crafted by a violinmaker. It was a yard that supported hundreds of craftsman specializing in all branches of the marine trades. —JB

first owner, William Wilkinson, who is said to have introduced wire halyards to yachting, had her for only a short time. The second owner, a young Henry Howard, had the boat from 1890 to 1896. During summers, he lived aboard near the Eastern Yacht Club in Marblehead, Massachusetts, where he raced regularly. One summer he sailed her from Marblehead to Halifax and claimed that ELF was the first small racing yacht to make such a voyage.

Howard left a record of his ownership in an autobiography and a 1935 *Yachting* article. A successful chemical engineer, he was a force to be reckoned with at the Eastern. Among other accomplishments, he headed the regatta committee and organized international Sonder class races that brought competitors from the United States, Germany, and Spain. "Saturdays," he wrote of his days racing ELF, "...I would take the 2:30 train from Boston to Marblehead, with many other Marblehead yachtsmen. Sails would have been hoisted by our respective boatmen and the weekly race to Gloucester would begin at the railroad station in Marblehead, and continue in our dinghies across the harbor to our boats where we

Rick Carrion, left, and boatbuilder Graham Ero worked together for years to bring ELF back to her former glory.

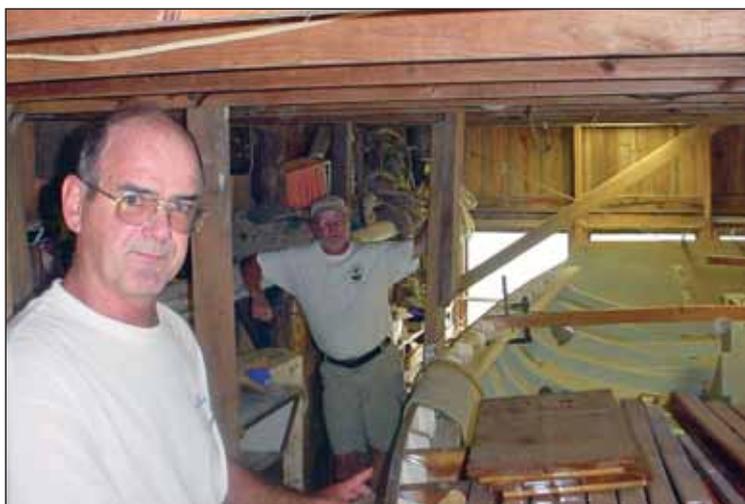
would tumble on board, let go the moorings, break out the jib and forestays'l, which had been hoisted in stops for the occasion."

Like most racing boats, ELF was fairly soon outdated. The conversion to yawl was the first of six rig changes she had. Subsequently, she became a marconi sloop, a gaff yawl again, a marconi yawl, and now a gaff sloop again. Shortly after the turn of the century, ELF received her first engine, a Lathrop. Her ballast keel was sold off during a World War I scrap drive for lead, after which she became a motor launch for a short time before returning to sail with a new cast-iron ballast keel. In 1935, she was purchased by Gus and Vida Van Lennep, who sailed her for 10 years as a gaff yawl. The couple, founders of the Chesapeake Bay Maritime Museum, proved to be a great source of information during ELF's restoration.

Needing a place to live as he attended college in 1971, Rick found ELF impossible to resist. He scraped together the cash, bought the boat, and moved aboard. He had no idea of what he was getting into. He knew little of ELF's history. She was called FLYING HIGH at the time, and he renamed her PAZ before learning her history and giving her back her original name.

Over the years, Rick did what he could to keep ELF going. He worked on the boat whenever possible, fitting the work around his career as a high school environmental sciences teacher and the needs of his family.

In 1982, he and some friends founded the Classic Yacht Restoration Guild, based in Earleville, Maryland, to raise restoration money. "In the late 1970s," Rick



JOHN BRADY

says, "I was trying to find a way to restore ELF in a fashion that would involve me directly. Living aboard and on a teacher's budget, I knew I could not afford to bankroll the job. I always knew that I could donate her to one of several museums, but I would lose touch with ELF. I wanted to try my best to bring my life dream to fruition." The tax-exempt, nonprofit Guild's mission is "continuing education of those interested in boat restoration," with ELF as the first project. It eventually grew to about 350 members. "Once I felt the Guild stood a chance to facilitate the restoration, I donated ELF to the Guild."

In 1991, he brought the boat ashore with the idea of taking on significant repairs. By then, Rick knew ELF was a historic treasure. "Then," Rick says, "I found the mother lode"—photos by Nathaniel Stebbins from the Massachusetts Institute of Technology Museum showing ELF during her first years. "I simply could not believe what a beauty she was to see in her full glory of the 1888 sail plan. It really made me think and start dreaming about a proper restoration."

There were bumps in the road—there always are—and ELF found herself blocked up first in one dry-land location and then another before finally coming to rest in a cornfield behind Rick's house, with boatbuilder Graham Ero engaged to work on her.

It quickly became apparent that ELF needed a thorough rebuild, from keel to deck. Storing her under a tarp in an open field would not do, so in her second year ashore, Rick built a shed around her. In the meantime, Graham replaced all her single-sawn frames in an alternating pattern so that her shape would not be lost, using windfall black locust that Rich had chainsaw-milled years earlier. Locust, Rich says, is "a superior wood for the job but very heavy and hard to move." Some of the boards were up to 3' wide and almost 3" thick. The same black locust would be used for ELF's new deckbeams, sternpost, and stem. Her new planking would be old-growth longleaf pine.

ELF's original lead ballast keel had been taken off during World War I drives for war materiel. The replacement cast-iron keel lasted until Rick Carrion's restoration, when a new lead ballast keel was cast to support a return to her original, large sail plan.



JOHN BRADY



Belowdecks, ELF has the spartan accommodations common to racing sailboats.

When funding came through, Rich and Graham settled into a routine. Rick ran the Guild and did the heavy work of milling locust. Graham did the painstaking joinery. When there was no money, Graham worked on other projects at his own boatshop, which has a steady stream of wooden boatbuilding work of its own.

To an outsider, the pace of reconstruction seemed geologic, but after eight years Graham finished the hull work and turned his attention to the deck. All that was left of the old boat were portions of the backbone. The stem, sternpost, all of her frames, planking, sheer clamps, and ceiling had been replaced. The craftsmanship involved was something George Lawley himself would have been proud of.

Up to this point, the boat herself provided most of the information needed to simply recreate what was there. But beyond the hull, much had been altered over the years.

The Stebbins photographs, together with a page of builder's notes about spar dimensions found at Mystic Seaport, proved invaluable in reconstructing her original gaff-headed sloop rig and her deck layout. At the same time, new needs arose, too: most notably, she needed a holding tank for the head. Also, being expected to follow a schedule, ELF would need a reliable engine.

The galley, too, needed updating. In former times, a paid hand whose comfort was of little importance to the owners did the cooking in a cramped galley forward. Only when cooking became the province of the owner or a spouse did the galley move aft. All of this meant that ELF's interior would be built to a style Lawley's craftsmen could appreciate but with a layout that would be foreign to them.

Before restoration, ELF tended to trim down by the stern because she no longer carried anchor chain in her forepeak and because the engine, tanks, and mizzenmast had been added aft. Even restoring her lead ballast keel wouldn't correct this, because of the engine's weight aft and her lighter-than-original rig—although great care was taken to keep the athwartship weights symmetrical. The addition of movable inside ballast allows her fore-and-aft trim adjustment.

As Graham painstakingly fitted locust deckbeams, Rick sanded and varnished them. Now that the sawyer's work was nearly done, Rick turned his efforts to paint and varnish. After the hull was completed, Guild members and spectators began to visualize launching day. The project suddenly looked as if it might have an end. But deck, interior, and systems work are time-consuming, and one anticipated launching date after another passed by. For a trade whose popular image is all about folksy craftsmanship and inherent mellowness, boatbuilding can be stressful. When asked what the most difficult part of this project had been, Rick promptly replies, "My divorce."

As the deckbeams were ready to go in for the final time, the Guild received a donation to cover the cost of reconstructing ELF's original rig. A condition of the gift was that the work would be done at the Independence Seaport Museum's Workshop on the Water in Philadelphia, Pennsylvania, which I manage. That's how I came to design and build ELF's new rig (see sidebar, page 85). This meant that a large portion of the work needed to complete ELF had been taken off the shoulders of Rick and Graham, yet a great deal still had to be accomplished before the rig could be installed.

Four more years would pass before relaunching. Tanks, wiring, and plumbing had to be installed or partly installed before the deck could go on. The interior joinery needed to be completed. A rudder had to be made and a new ballast keel of lead cast. The thought of a rig all ready and waiting and completion in sight were a boost to Rick and Graham, although their feelings were a little ambivalent about having gone so far only to see someone else actually finish the journey.

By the fall of 2007, the deck was complete, the rig was ready in Philadelphia, and systems and interior work was progressing. The new lead ballast keel was waiting at a nearby yard. Graham had been obliged to move on to other commitments once the deck and deck structures were completed, and his expertise was sorely missed. Rick soldiered on with the assistance of volunteers. Another launching deadline came and went, and all hands were getting perhaps over-eager to see the project done. A new and final launch date was set for April 2008, giving time for a final push over the winter.

Details have no end—they seem to multiply relentlessly. One wonders how so many loose ends can be packed into so little displacement. But at last, the day arrived. ELF emerged from her shed for a trailer journey to the water's edge for her ballast keel installation. A problem with bolt alignment took several days to resolve. They worked in haste as the time approached. This deadline was final: invitations had been sent, champagne readied, the local press alerted, commitments made. After Rick made a short speech, the bottle broke, and the Travelift lowered ELF into the water at long last.

The yard was busy with spring launchings that day,

Restoring ELF's Rig

The only traces of ELF's original rig were to be found in pictures and notes unearthed over years of sporadic research: photographs, a list of spar dimensions, W.P. Stephens's published comparison of ELF to the catboat HARBINGER, and a sail inventory by former owner Henry Howard. On the boat herself, only the original mast partner and maststep locations survived. Nevertheless, the information proved sufficient to work out a very close approximation of the original rig.

As with the hull, changes in materials and techniques were made. Most notably, to gain the well-known safety and performance benefits a lighter rig provides, we used hollow spars instead of the likely solid originals. We made them as eight-staved birdsmouth constructions (see WB No. 149) glued with epoxy. For aesthetics, we retained wood-shell blocks, but for durability we used stainless-steel wire and bronze turnbuckles rather than galvanized, polyester line rather than hemp, and Dacron sails rather than cotton.

The wire was spliced, parceled, served, and leathered, and we used three-strand line so that the aesthetics of period ropework could be recreated. The sails, which were made by Nat Wilson of East Boothbay, Maine, had handwork typical of the era. The resources required to maintain a rig like ELF's are considerable, and every effort was made to reduce those costs without taking away from the feeling the yacht had as she sailed in the 1880s.

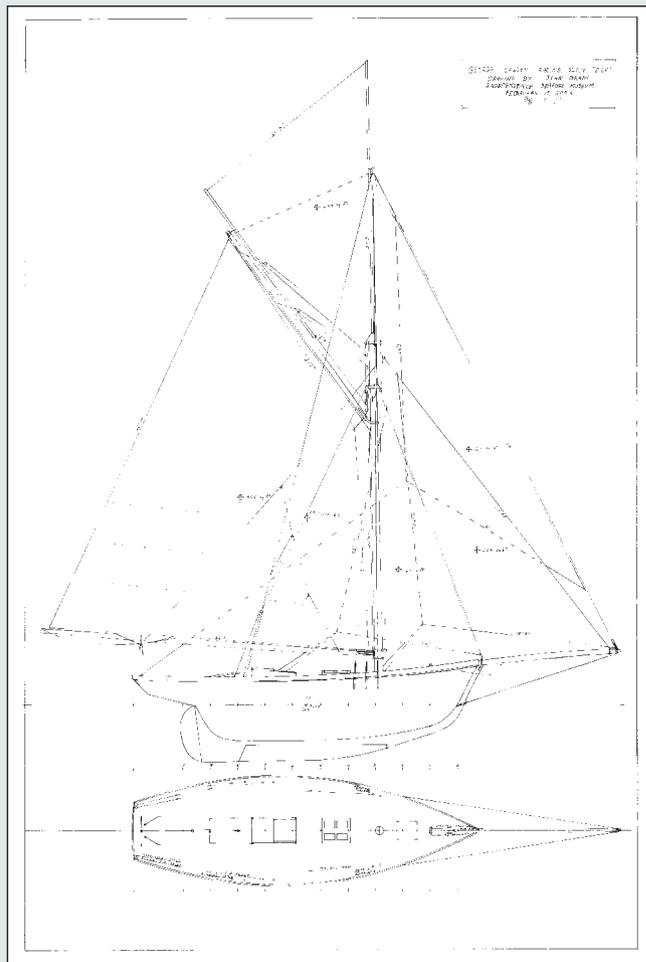
To make sure everything was well engineered and documented, the hull was measured and her lines were drawn. When ELF's hull shape was compared other boats of the era, most notably those documented by C.P. Kunhardt in his book *Small Yachts*, we could make final decisions about the dimensions of her new rig.

The rig—her sixth since 1888—was designed, built, and installed at the Independence Seaport Museum in Philadelphia and ELF got underway on July 16, 2008. It was a calm day, with little whispers of breeze on the Delaware River. Many friends of the boat were aboard, including, of course, Rick Carrion. The jackyard topsail was not ready yet, but everything else was set. It was a marvel how just a hint of a breeze propelled all of ELF's tonnage.

Rick was euphoric. His 17 years of rebuilding had finally come to a close. With a full itinerary of places to show the boat, ELF left Philadelphia shortly after that first sail, but Rick brought her back in August to receive her topsail



JOHN BRADY



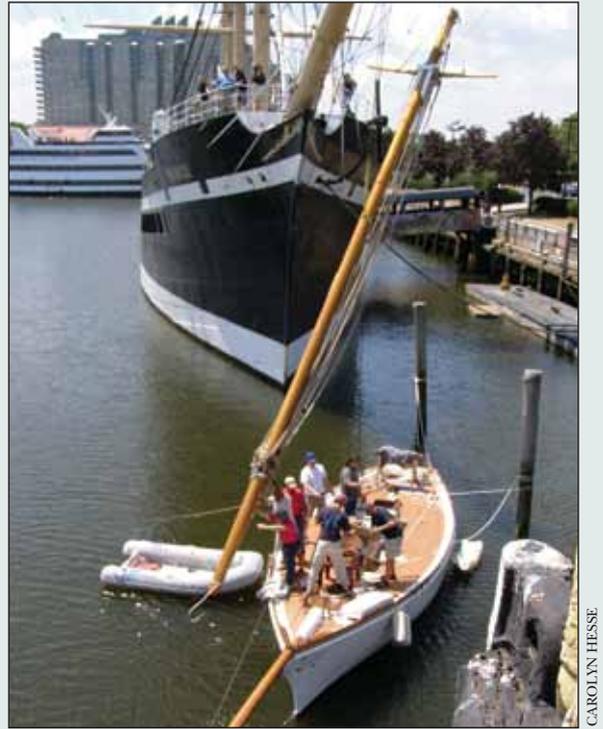
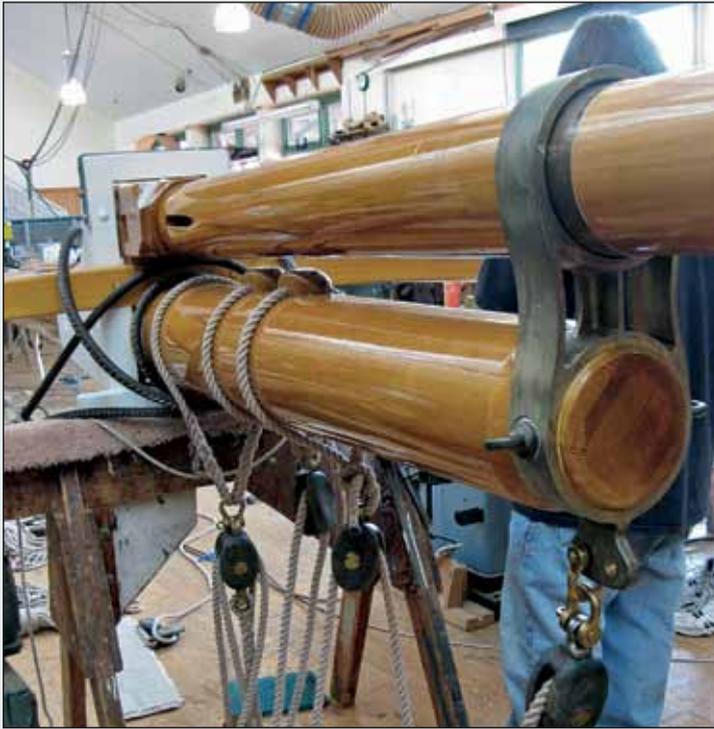
John Brady (the author), director of the Workshop on the Water at the Independence Seaport Museum in Philadelphia, Pennsylvania, used historical resources to reconstruct a sail plan for ELF.

and to put her through as many sea trials as could be fit in.

Sailing ELF, with her heavy displacement, deep forefoot, and long keel, is very much a big-boat experience despite her relatively small size. She is not maneuverable, but she is designed to hold a course exceptionally well.

The rig is fairly complex. With four sheets and a pair of running backstays to tend, there is plenty to do and plenty of opportunity for mistakes. It's all about planning and practice. On the other hand, the crew will learn that a jib can be backed to spin her onto a new tack, albeit at the cost of considerable forward momentum. They will also learn to ease the jibsheet going into a tack and to keep them drawing as much as possible on a jibe.

Brady chose to give ELF hollow masts to minimize her weight aloft. Here, long staves are shaped in preparation for gluing.



ELF's mast and topmast are both bird's mouth-style constructions (upper right, see also WB No. 149), glued with epoxy. After the glue had set, the spars were turned on a lathe (upper left) to their final shape. The fidded topmast (lower left) and all of the mast's fittings were completed in the Workshop on the Water while the hull's final details were being completed in Earleville, Maryland. Using the bowsprit of the steel-hulled square-rigger MOSHULU (now a restaurant) as a crane, the rigging crew stepped ELF's new mast in 2008.

They will understand that they can let her great momentum carry her through a tack. They will come to know that the staysail is great for reaching but just backwinds the mainsail if overtrimmed when sailing closehauled.

ELF can stand up to her canvas. She has a good bit of beam to go with her draft and as a result has good initial stability. She is a stiff boat, and it takes a big breeze to get her deck truly wet, even with all that canvas spread. In the 1891 book *Representative American Yachts*, Henry G. Peabody described ELF as having "a reputation as a good hard weather boat and sail carrier."

The jackyards and the bowsprit call for caution. If her canvas is carried too long, a flailing yard or a plunging bowsprit may bring a sailor to grief. This was well understood by every sailor back when ELF's rig and lay-

out were considered normal and is best not forgotten all these years later.

Reaching under full sail, ELF is particularly handsome, embodying the craftsmanship, engineering, and dedication of an earlier age. She is a testament to those who have cared for her through all that time, and most particularly to those who labored these past 17 years to restore her. Watching her sweep by, the effort seems very much worth it.

"I must say that every moment we are under sail makes my heart thankful for everyone's efforts of donated time and skills over the years," Rick says. "I simply could not have done it without those efforts. It is a great feeling to share the experience sailing with friends that have helped the restoration always move forward." —JB



ANDY SLAVINKAS

During sea trials in Philadelphia, ELF proved a fast sailer in light air, and with her three headsails she gives the crew a workout.

so ELF was towed away from the slip as quickly as possible. Rick jumped aboard and to his horror found water rising rapidly. ELF had to come back out of the water immediately.

During 17 years ashore, ELF's keel had dried and checks had opened, letting water in. The keelbolts needed to be

removed and rebedded and the checks had to be filled with something flexible that would allow the wood to swell but in the meantime keep the water out. "We worked two weeks and relaunched successfully, after swelling the keelson up ahead of time from inside," Rick says. "The pumps were able to keep up."

Persistence is a boatbuilder's most valued quality. It is persistence that gets us to pick up the tools again after some disaster. "I had to do whatever it took to relaunch ELF," Rick says. "Time just seemed to melt away with no end in sight. Sometimes all I could do on a given day was to sit aboard and just dream about the past sailing and try to imagine what it would be like to sail with the big gaff rig. That would kind of recharge me and help me organize the next part of the project."

"A project of this magnitude requires a tremendous amount of planning, organizing of materials and volunteer skills, let alone perpetual fundraising. There were times when the light at the end of the proverbial tunnel was out and there were days that it was just hard to get started on any one project, but I forced myself to focus and push onward."

Rick Carrion clearly is a persistent individual, and ELF did go back in the water with the leaks fixed and her project leader a bit humbler and a bit more willing to slow his pace as the little yacht motored up to Philadelphia to receive her new rig. 🚤

John Brady is the director of Workshop on the Water at the Independence Seaport Museum, 211 South Columbus Blvd., Philadelphia, PA 19106; 215-413-8638; www.phillyseaport.org.

Classic Yacht Restoration Guild, P.O. Box 237, Earleville, MD 21919-0237; 410-275-2819; www.cyr.org.

Graham Ero Wooden Boat Shop, P.O. Box 27, Rt. 292, Still Pond, MD 21667; 410-348-2296; www.erowoodenboats.com.

How ELF Was Restored

In 1991, at the outset of her full restoration, ELF was a catalog of maritime afflictions. Damage from two collisions, one forward and the other aft, had been patched with more enthusiasm than knowledge. Her iron fastenings were rusted past recognition, and she had a great deal of rot. Her cabin, interior, rig, and hull itself had all been modified, in some cases more than once.

"She had a dozen problems, any one of which would have sunk another boat," Graham Ero says. However, her shape was remarkably intact. Graham's efforts day after day through the years transformed a rotten hulk into a boat again. The first step was to remove the large trunk cabin and the interior. The cabin, resting on blocks near the boat, was quickly appropriated by Skip-

per, a Chesapeake retriever, for his own use.

Photos taken in the early stages helped guide reassembly when the time came. Two athwartships tie-rods and external bracing helped to hold her shape. By establishing a centerline, she could be measured to check for symmetry, which was good for the most part.

After removing the garboards, Graham could assess the backbone, floors, and frame heels, which were boxed into her massive timber keel. A section of the stem needed repair. The keel aft of the ballast needed to be replaced along with the sternpost, horn timber, and transom. The iron floors were taken out, and a nearby metal fabricator made up new ones of 1/2" steel, which was then hot-dip galvanized and later coated with epoxy.

Rick Carrion started a nonprofit organization, Classic Yacht Restoration Guild, as a way of funding ELF's restoration. With work proceeding as money became available, the project lasted 17 years.

Next came the frames. As each one was pulled out, ¼" lauan plywood patterns were made to fit against the planking, and bevels were marked on them. These shapes were transferred to locust frame stock, which was then cut out with a circular saw or bandsaw, then finished off with a power plane and faired with a belt sander. On the reconstruction, the key to success was the ability to do a great deal with a very minimal setup.

Forward, ELF's sawn frames have little curvature, so the frame pairs are made of one piece of wood per side. But where the hull curvature was greater, the frames consisted of several pieces, or futtocks, that overlapped and were bolted together. Where more strength was required—such as at the chainplates—double-sawn frames were used. In the reconstruction, the futtock overlaps were epoxied together and also through-fastened with galvanized bolts. After all the frames were completed, the stringers, sheer clamps, and beam shelves were replaced.

ELF is planked in longleaf pine, and considerable effort was expended to find old-growth wood. The original planking had been patched and recaulked so many times it was useful only as a rough guide. The new planking was roughed out with a circular saw and finished by hand, then fastened with galvanized screws—a choice guided not only by cost but also by the desire to use a metal compatible with the boat's existing cast-iron ballast keel. Later, the decision to restore her rig led to the conclusion to replace the cast-iron with lead, so the galvanized fastenings will likely be replaced by silicon-bronze over the next few years.

In 1999, eight years after the project began, the planking was complete. "You could start to see what she truly was," Graham says. "From there, the project became truly worth doing."

Early photographs guided the restoration of the original deck layout. Enough original structure survived to show how it had been built, including the use of tie-rods between the carlins and the sheer clamp and lodging knees bracing the mast partners at the sheer. All of this was recreated. The deck camber was established amidships and this curve was used throughout with some adjustments to keep things fair. Deckbeams were well varnished before being bolted to the beam shelves and the frames.

The boat has three structural bulkheads of cherry bolted to the frames. Between these, in the living area, is a light cypress ceiling. The beam at the forward end of the cockpit is reinforced by knees at the sheer

ELF has understated deck structures and the open deck plan of a racing sailboat, but a butterfly skylight permits ample light below. Her sprung-plank decks are glued over a plywood substrate meant to stiffen the hull and block rainwater from reaching the structures below.



JOHN BRADY

clamps and by the cabin cornerposts, which extend to the bilge. Similar posts support the aft end of the cockpit sole. The cockpit framing is dovetail-joined, as it was in the original construction. A knee in each corner supports a bronze engine access hatch.

In the early days of his ownership, Rick sheathed ELF's decks in plywood and fiberglass set in epoxy, which he credits with keeping fresh water out. So when the time came to lay the new deck, he and Graham turned to plywood once more to keep out leaks as well as to stiffen the hull. Its underside was V-grooved to give it the look of a planked deck from below, and it was sealed and painted before being screwed into place. The plywood ends at the covering boards. Atop the plywood, they installed sprung planks of fir. Each was actually two pieces bent around a mold and glued together. Three separate molds were used to account for the changing curvature as the decking proceeded from centerline to sheer. The planks were set in a layer of neoprene and the seams between them were payed with polysulfide.

All of this work is a tribute to Graham's patience and skill. "The reality of the ELF restoration would not have been this successful without his skill, insight, and personal interest in preserving a historic vessel," Rick says. —JB



WENDY BYAR