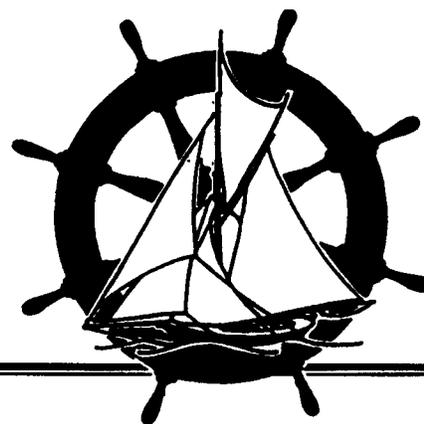


THE HELM

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A PUBLICATION OF THE CLASSIC YACHT RESTORATION GUILD, INC.

Elf, past and future



President's Message

King of Delayed Gratification

or

A real project with a purpose!

... by Rick Carrion

Some days I just dream of what can be, and then other days I try to put everything into motion to accomplish the dream. I have always said that in life, you have to dream, and you must chase your dream. I know that must sound silly to some people, but that is a creed that I kind of live by. In addition, I love a good challenge. That said, I am thrilled to be on the cusp of re-launching *ELF* after 16 years of restoration!

I would like to take a moment to reminisce, I promise to keep it short. When I moved *ELF* into my back yard, we set her down where I planned to build the workshop. Graham Ero and I worked all summer taking *ELF* apart documenting all of the original construction details. I saved most pieces of wood, which proved very helpful for later research needs. As the new school year started, I taught during the day in the classroom and worked evenings and weekends to prep wood for Graham. As winter approached, Graham made a workspace at the starboard bow with a blue plastic cover. This was not the ideal workshop, but we made it work.

As we got further into the project, we realized the true magnitude of the effort. I was somewhat torn with where to start and stop, meaning that I truly wanted to keep all of the planking above the waterline. The reality check came as we evaluated the fasteners. *ELF* was built using galvanized iron fasteners which destroy the surrounding wood as they react to the elements. I have also said, that I want to be able to sail home; we needed to reduce the potential for problems. That said, you can understand our painstaking efforts to replace every piece of wood (except the original wooden keel). This was a monumental task to

accomplish while keeping her wonderful shape from changing.

We had many issues and challenges with which to deal in order to accomplish an historically accurate restoration. However, as time marched on we worked meticulously on every detail. I must say how grateful I was to have had photos from the Nathaniel L. Stebbins collection, showing *ELF* in various points of sail. The photos were exposed on glass plates in the 1880's and 1890's. After they were scanned into the computer and enhanced we were able to identify a multitude of fine details that we have painstakingly recreated. I must say that sometimes the progress was as exciting as watching paint dry, but Graham has done a superb job. Without a doubt, the *ELF* restoration has been Graham's masterpiece. I want to say "Thank You!" to Graham for such a fine job!

I also feel privileged to have worked with such a talented person as Graham Ero. Over the years we have developed a great working relationship. Being able to address issues and work together to develop working solutions has proven to be invaluable. And I must say that I have learned a new level of patience and inner calmness while working with Graham. At this juncture, I know some people would say, "Rick only wants to **work** on the *ELF*", but I know that I am truly excited ready to show the world what we have accomplished

Although it has taken a while to realize the dream, I look forward to taking everyone sailing who have helped restore *ELF* to her original glory. We still have much to do before *SPLASH*, but we are pushing hard for a re-launch in June. Then we go to Independence Seaport Museum in Philadelphia to rig her and then... SAILING

Please visit our web site to get updates... CYRG.ORG

Rick
"Lawley Built"

Graham's Letter

A Place in History

It's hard to believe it has been 16 years since we first began tearing rotten wood out of *Elf*. The contrast between the boat that was sitting in the field and the boat we are soon to launch is amazing. I don't think Rick or I could have imagined all that has transpired since then, or that we would be completing an authentic restoration of a truly historic boat. On the other hand, for *Elf* to sail safely for another century, it really could not have gone any other way. There was so little worth saving. Fortunately *Elf's* backbone, the heart and soul of a boat, was a massive piece of oak that had, for the most part, survived and gave us a foundation to build upon. Throughout the process of *Elf's* restoration there were decisions that had to be made that would affect the boat for decades. One of the best decisions was to frame her with black locust that was available on Rick's family farm. Rick pulled down trees out of the woods with a tractor and then chain sawed them into slabs with which I could work. It took a lot of wood. *Elf* needed 40 pairs of hold frames, 30 deck beams, 8 carlings, large pieces to repair her dead wood, a new sternpost, horned timber, 35 ft. long shear clamps, bilge stringers, all made of black locust. Harder than oak and highly rot resistant, it was worth the effort. Black locust was the best framing wood with which I have ever worked. Some sailors say it is harder than stone and lasts longer.

We chose long-leaf yellow pine for her planking because that was the wood that was used originally. There are hundreds of linear feet of hull planking on *Elf* and each foot of planking is different from the one next to it. All old planks were removed, but not used as templates. The templates were created through a process called spiling. Then each new plank was hand fitted into its location. Additional work included the installation of keel bolts, floor timbers, mast step, sampson posts, bulkheads, tanks, engine beds and engine, prop shaft, deck beams, and carlings. In recent months new decks were laid over it all.

South American Angelique was donated for the "deck furniture," as some call it: the companionway house and hatch, skylight, forward deck hatch, belaying pin rail, and cockpit. Angelique is a beautiful hard wood that is murder on tools but, once again, a great choice for its durability.

All in all we strove to do the very best job with the best materials available. Rick was always prepared to provide the best material and it was his talent in the woodlot that made that possible. The time and effort required to fit and install the hundreds of individual pieces in a wooden boat that culminate in a unified hull requires superior materials. As rewarding as this process has been we do not want to do it again.

I started my career working in boatyards in Connecticut where I lived in the early 70's, but have been fascinated with boats since I was a child. As a young boy living in Cambridge in the 50's, I was drawn to the dozens of working skipjacks, other Chesapeake Bay working boats, and the working yards that kept them alive. I never intended to do this for a living but in the end, I may not have really had a choice.

When I began working on *Elf* in 1991 it was a job, but in time it became more than that. I know one cannot spend thousands of hours building new life into such a boat as *Elf* and not leave something of oneself in those timbers.

When a boat like *Elf* finally comes to life again, in the moment she floats, there is a sense of legacy. We hope that *Elf* will outlive us for decades to come and perhaps also outlive all the rest of the boats. It is the reward of this work.

Elf's
Boatwright

National Sailing Hall of Fame & Museum

Recently, Lee Tawney from the National Sailing Hall of Fame visited the ELF restoration project to inspect our efforts. Lee was so impressed that we are invited to have ELF on display at their facility in Annapolis, MD. We are looking forward to having ELF on display at their city docks facility and museum. Lee also suggested that we try to organize a classic sailing vessel regatta, which I will gladly work on and ask every member to spread the word. Please visit their website:

lee.tawney@nshof.org

**Check for Updates for the
Re-Launch on our Website:
www.cyrg.org**

BoatLIFE

Over the years we have been privileged to have many donations of materials. We want very much to thank the wonderful folks at Boatlife Company for their extremely generous donation of 60 tubes of polysulfide caulking for ELF's deck seams. We have been successful to seam the decks with what we feel is the best product on the market, and it looks great!



Wish Upon a Star, Pick a Destination

Perspectives on Celestial Navigation

... by Brian McCandless

Tools of reckoning: A theme for this transitional period, while *Elf* is yet on-the-hard, but so close to set sail. As *Elf*'s first complete restoration since her construction in 1888 winds to a close, we turn our attention to the water and to navigating *Elf* into a glorious future. We turn our tools for rendering wood into those for reckoning position, time, wind, and water. It seems an appropriate time then to review some down right basic principles and tools of navigation, especially the relationships between motion and position, time and angular measurement, terrestrial land-sights and astronomical objects.

Navigation's ultimate goal is facilitating safe passage from departure to destination. The most fundamental concept that needs to be embraced is the high value of foreknowledge of the envisioned path and the diverse elements along it that will exert influence on the anticipated passage. Then there is the flexibility needed to adapt to changing conditions and unforeseen hurdles. And then there is the matter of simply paying attention.

A true story comes to mind for those who take to the water with no forethought, planning, or education about these matters. A few years ago on a river of the Chesapeake Bay there was a fellow who'd just bought a new \$1M luxury cabin cruiser. After loading up his family and friends, setting the drinks out on the deck table, and turning up the stereo, and after motoring to the channel, he set his GPS system for his destination and let-'er-rip. After a short but high-powered run, he and his new purchase wound up on a sand bar at a river bend – high and dry and with a fully cracked hull. I was sailing at the time and heard the crunch, followed by the wails of shock and awe from the passengers, and I thought about how often this sort of thing must happen and can so easily be avoided.

While the captain's error was ultimately a failure in safe piloting, he clearly didn't understand the most basic principles of making passage. And this is where a navigational component must be added to each and every voyage, no matter how simple the voyage may appear to be. Even under ideal circumstances, letting the GPS system do the work is only as good as the instructions programmed into it – garbage in, garbage out. No waypoints in, no happy ending. In *Elf*'s day, before the advent of the GPS system and even before the auxiliary engine was available, each trip had to be envisioned, if not planned, before embarking. This would have included intimate knowledge of the waterway, of the prominent landmarks, the tides, especially of tidal currents, of wind and weather patterns – all assembled in an intuitive system of dead reckoning that becomes second nature to experienced pilots. At night all of the above issues are complicated by low visibility and loss of orientation, without some very basic tools.

Here is a basic tool kit available to every sailor, without the need for any instrumentation:

First, relative motion. If the channel buoys are all lying at an angle facing you, the current is coming at you. In this situation the time of tide change and your experience with the river's tidal

currents are valuable tools for assessing the current facing you. If you throw a piece of wood into the water from your moored or anchored vessel and the stick moves 1 *Elf* length (about 33 feet) in ten seconds, then the river is moving at 2 knots. If your boat can make a speed that matches an opposing current, you will make no headway with respect to land, and you might think about another move. If your boat can cross a river and make the same speed as the lateral current, your actual path will lie at a 45 degree angle down-range from the starting point, in the current's direction. Finally, and importantly, a boat ahead of you appearing to cross your path will certainly collide with you if it appears to stay at the same angle over time.

Second, angular measurement. As a human, you come equipped with a few navigational measurements aids built-in. The width of your thumb held at arms length is one or two degrees, about 2 or 4 times the width of the Sun or the full Moon. The width of the palm of your hand, held facing you at arms length, is about the same as the pointer stars of the Big Dipper, in Ursa Major, and is about 5 to 8 degrees, depending on the size of your hand. The angle subtended by the full spread of your hand, from thumb to little finger, held at arm's length, is about 20 degrees. Thus, without a sextant, or a GPS system, you can figure out your latitude to a reasonable value, either by measuring the height of the Pole Star above the horizon, or by measuring the height of the noon day Sun and taking into account the declination of the Sun for whatever time of year you might be looking. In the northern hemisphere, the Sun is at its highest northern declination around June 21st. Your latitude in this situation is simply 90 degrees minus the height of the noon day Sun, plus whatever its declination is that time of year.

For example, let's say you are at sea and find the Sun to be four hand widths, or 80 degrees, above the horizon around noon. The summertime solar declination is about 20 degrees; and Your latitude is thus 90 minus 80 degrees, plus 20 degrees, which works out to be 30 degrees, which is roughly the true value of 32 degrees. At 60 miles per degree of latitude, you'd be off by about 120 miles, or one-day's travel if you were making 5 knots. Using the Moon in such a simple manner is complicated by its more complex orbit around the Earth, and would be difficult without an almanac. Even so, if you were to find that the Moon was on the ecliptic, or if you could remember the approximate declination of a nearby bright star, then you could perform the same calculation as with the Sun.

Third, time. Determining your longitude is another matter and requires knowledge of the time of certain celestial events, such as the time of noon, or the meridian passage of a star, planet, or the Moon. Without an almanac, this is tricky, and the best advice is to maintain careful records of what you do know, your dead reckoning position and time, and apply that information to your uncertain situation when things are going poorly. A rule of thumb is that the Moon progresses eastward each day with respect to the

stars by 12 degrees, or nearly an hour of time, so if you knew the time on one day that the moon passed the meridian, then you could get a time fix by knowing how many days had passed. Also note that the Sun takes 24 hours to return to the same place, which means that it moves 15 degrees per hour, or about a hand width, held at arm's length. At sea, without a timepiece, you can use the time-honored procedure of finding your latitude and then sailing east or west to your landfall, without worrying too much about what time you arrive for tea.

Fourth, seasonal astronomical objects. This season, up in the sky, as we move from early to late Spring here in the northern hemisphere, look for the constellation Ursa Major to be overhead at 9 PM and Leo to be passing the meridian at the same time. Venus will be well up in the west, Saturn will be leading Leo, and Jupiter will be rising in the east after midnight, near the constellation Scorpius. The navigational stars Arcturus and Spica will be near the meridian, while Betelgeuse, Capella, Castor, Pollux and Procyon will be setting in the west and Altair, Deneb and Vega will be rising in the east. The full Moon occurs on June 1st, June 30th, and July 30th and will lie at respective declinations of -27.3 degrees, -27.9 degrees, and -19.8 degrees. Finally, the Milky Way will become visible, emanating north out of Scorpius and Sagittarius, which will be rising in the east. So, wish upon a star, and use it as you need it. Keep looking up.

Schedule of Launching Events

Move Elf out of the work shop and to Rock Hall June 18.

Work all week to attach the keel, and address issues as they surface.

Actual splash will be Saturday, June 23, if it can be arranged with the yard, otherwise we will try to launch Friday as late in the day as possible (June 22).

We will then swell the hull for the next two weeks with the thought of moving toward Philadelphia starting July 5 or 6th, tide and weather permitting.

We will work to rig, shakedown, and start sailing to finalize tuning the rig.

This is all subject to minor changes, but we feel it time line should work. We are all working hard to achieve these goals.

26th Annual Crab Feast, Barbecue & Silent Auction

Mark your calendar now for the best crabs available on the East Coast, September 15, rain date September 22. Also, please try to generate interest in getting donations for the silent auction. In the past it has proven to be a big fund raiser.

Guild Vision

The Classic Yacht Restoration Guild is a non-profit membership organization dedicated to the preservation of traditional watercraft, both power and sail. Yacht restorations are accomplished through a combination of member donated skills and resources. A cooperative educational setting is provided by the Guild for all members who wish to acquire or sharpen boat maintenance and restoration skills. Our membership is diverse. Each member can participate either as an instructor, a student of restoration techniques, a participant in Guild sailing events and cruises or as a supporter through dues and donations. The Guild also offers a variety of resources and skilled professionals who are qualified and interested in helping you connect with the right people to assist with your project.

Work on our flagship *Elf* currently involves restoration of the original rig, deck, and cabin configurations. In addition, the Guild has received donations of many small craft which are used as demonstration and education projects. Ships carpentry, rigging, mechanics, and fine wood finishing are all topics covered by periodic workshops held while restoration projects are underway.

Once a Guild vessel is made seaworthy, the true pleasure of operating historic or significant small craft begins. Members are encouraged to sail Guild vessels with emphasis on instruction of boating safety, piloting, navigation, and the maritime history of the Chesapeake Bay. The Guild plans several cruises to maritime and waterfront festivals every season. Members serve as crew and staff displays at these events.

As a non-profit organization, the Guild always welcomes tax-deductible contributions. For example, the Guild received a 1963 vintage Lightning class racing sailboat and a large library of titles on boat building, maintenance, and maritime history. Also, donation of items used for restoration or fund raising are also tax deductible.

With a growing membership, the Classic Yacht Restoration Guild looks forward to increasing activity and good times. Please ask a member for further information and details.

Request for Submissions

Please consider writing an article for our next newsletter. It can be about any aspect of boating, cooking aboard, boat maintenance, or any area of sailing that excites your passion. It may be submitted in writing, or by email to:

elf1888@earthlink.net.

The deadline for the next newsletter is August 10 , 2007.

Matching Contributions

We encourage all members to ask their employers if they match contributions made to non-profit organizations. If so, please send along the necessary paperwork with your contribution. We want to thank SAP and CHASE for matching contributions made by their employees. If your employer will participate, we will be able to double your contribution. I will fill out any necessary paperwork. Please talk to your employer. It could get us into the water much faster!

Twenty-Five Years Before the Mast (is Finally Raised)

... by Jen Dolde

Rick Carrion's epic voyage to restore the yacht *Elf* began in 1982 when he founded the non-profit Classic Yacht Restoration Guild (CYRG). But the journey really began in the summer of 1970, when 19-year old Carrion was working as a dock master at the Granary docks and noticed a dilapidated wooden sloop for sale. "The paint was almost all off; there was no varnish...bare wood. Down below we had mushrooms growing and hornets' nests and mildew that must have been an inch thick," Carrion recalled.

That winter, he repeatedly checked to make sure *Elf* had not sunk, and began dreaming about buying her. Owner Judson Branning was asking \$8,500. Carrion, who was working to put himself through college, talked him into accepting a fraction of the price. Carrion's employers at Sailing Associates, Inc. insisted he get his mother's permission. Young Rick talked her into it—"she had no idea of anything about boats"—then laid down his wages, tips and most of his bank account.

Carrion spent the first three days of ownership cleaning the boat before he moved aboard. The first night, the bilge pump stopped working and he awoke and found inches of water on the floor. "That was alright," Rick laughed. "I was good at cleaning boats." He admitted, "I had no concept of what I was getting into. Seventh-grade shop class, that was my woodworking background." The only boat he had ever sailed was a 13-foot daysailer. The 35-foot yacht "was a little step up," he joked. On the title, it was estimated the boat had been built in the 1920s.

On his first sail, Carrion and his crew pushed *Elf* straight out of the old B dock at the Granary, tacked downriver and then sailed right back into the slip without an engine. "If you want to do anything badly enough, you'll find a way to do it and that's the way I've basically kind of lived my life," explained Carrion. But his inexperience led to some challenging moments. On his first sail down the Bay to Salisbury State College, *Elf* blew out her sails off Tilghman Island during a nighttime squall. They dropped anchor in the Bay, but "come sunrise we were looking at the shore coming closer" as the current dragged them inland. A local waterman took pity on them and pulled the boat around Black Walnut Point.

The next leg of the journey began when Carrion found *Elf*'s original documentation board hidden beneath a reinforcing beam, enabling him to locate the yacht's original application from the National Archives. "That gave me the information I needed to do some research." Carrion began writing to maritime museums on the east coast. "I told them what I knew and one might fill in a couple pieces of the puzzle here, another might fill in a couple there and then I'd compile that and send it out again." The significance of Carrion's old boat was quickly coming to light.

Even as he continued the search for *Elf*'s history, Carrion decided to put the yacht up for sale, tired of balancing work, his home on the Earleville family farm and "keeping the boat afloat." Carrion taught environmental science at Elkton High School and spent his summers varnishing, painting and maintaining *Elf*. In 1975, he received a call from maritime writer Donald Street, Jr. "According to my research you've got the oldest small yacht in

America and the third oldest in the world."

Shortly his conversation with Street, Carrion received an envelope from the MIT Museum in Massachusetts containing images taken on glass plate negatives almost 100 years ago. "When I opened up that packet of photographs," Carrion remembered, "it was my first realization of what I had." *Elf* had been built in 1888 by renowned Boston boat designer and builder, George Frederick Lawley.

That moment was a turning point for Carrion and *Elf*. "From that time on I said, 'That's it. We're going to do what we can to see about putting her back the way she should be.'" He located craftspeople who allowed him to help and learn woodworking skills. "I would find a way to get the right people involved," said Carrion. From the outset, he intended to restore the yacht with historical accuracy, and soon realized it would be a costly, labor intensive process that would require a network of members, volunteers and skilled tradesmen. Soon after he founded CYRG, he donated *Elf* to the organization.

Under CYRG, Carrion's work expanded to include fundraising, grantwriting, and personnel management. "This is...a dream come true, but I couldn't do it myself. It had to be done as a group effort." Under the direction of Still Pond, Maryland boatwright Graham Ero, volunteers have had the opportunity to help with the restoration and to learn traditional boatbuilding. Carrion acts as foreman at these parties, facilitating the work by matching people with projects and tools with the task. Clearly, Carrion is a teacher at heart: "If you're going to keep the boats alive, you have to keep the skills alive....If you're going to do the process, you have to teach what it's all about too."

These days, Rick says he is "thrilled with where we are in time and space" after 25 years of CYRG. He rattled off the items on his to-do list over the next months: finish the decking, haul the 35-foot yacht to Rock Hall, attach the 5-ton lead keel and put her into the water, motor up to the Independent Seaport Museum in Philadelphia to raise the 55-foot mast and install rigging to handle 2,300 square feet of sail. After 30 years of work and waiting, the list is not daunting to Carrion. "I'm a goal setter in life. And in my mind it was a challenge—I thrive on a challenge." Already, Carrion has come up with a new set of goals for *Elf* once she sets sail.

Elf is scheduled to be fully rigged and ready to sail from Philadelphia to Chesapeake City for a commissioning celebration in June 2007.

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SHARE THE HELM WITH FRIENDS

Save Us Time, Money, and the Environment

We would be glad to send you future issues of our newsletter HELM electronically as pdf files. Then you could also post or forward it easily to friends. **Send your email address to:**

elf1888@earthlink.net

Thank You, International Paint Company!

We appreciate greatly your continued support of the *Elf* restoration. Your recent generous donation of paint, varnish, and seam compounds have finished *Elf* in grand style. We also thank International Paint Company for selecting *Elf* to be featured in a future issue of "INTERLINK, The Latest News from International Paints." So be sure to pick up a copy at your local marina.



Check our Progress and Photos at:
cyrg.org

Quality Wood for Sale

Rick is selling his personal high-quality wood supply to generate funds for the continued financial support of *Elf* sailing programs. For information, contact him at:

410-275-2819 or elf1888@earthlink.net

He has cherry, poplar, walnut, maple, and an assortment of other fine woods.

*Photo courtesy of
Francis Russell Hart
Collection - MIT*



*Photo shows Elf's original massive rig
that she will soon carry again.*

THE HELM



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